

Cloud Edge Secure Access

Advanced Settings

SONICWALL®

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Networks

Topics:

- [Private DNS](#)
- [DNS Filtering](#)
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- [Multi-Tunneling](#)
- [Dynamic-IP Tunnels](#)
- [Whitelisting Resources](#)

Private DNS

This article describes how to configure a private DNS.

Private DNS will enable you to reach an internal resource by its hostname (as published by your local DNS server). This can ease your workflow, as you will now longer need to specify the resource's IP address.

You can assign Private DNS on two different levels: on the Network level (for the entire Network) or on the Region level (for a specific region in your Network).

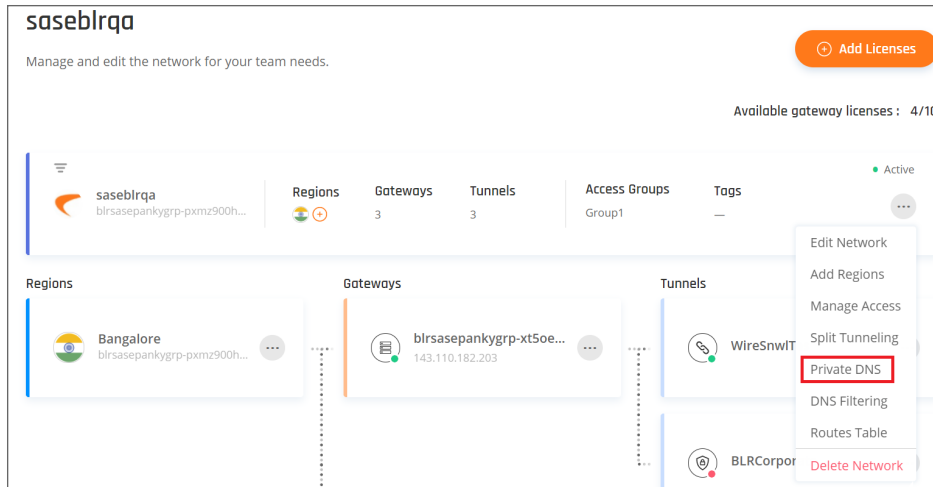
The Private DNS will allow you to utilize your organization's DNS servers, as well as local domain names while the Regional DNS will allow your users to resolve resources via a local DNS server rather than waiting for a response from a remote one.

Connecting a Private DNS to a Network

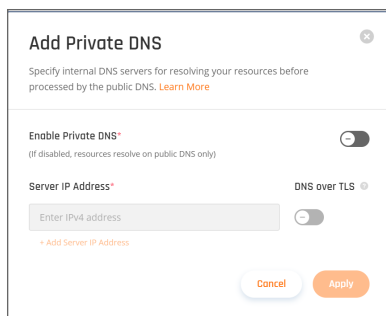
A Private DNS server can be connected to the Network by following those steps:

Before you proceed, If your private DNS server(s) do not have a public IP address, you'll need to set up a Site-to-Site connection to the internal network containing the server(s).

1. Click on the (...) icon on the Network section.



2. Click on Private DNS.
3. Turn-on the Enable Private DNS toggle.

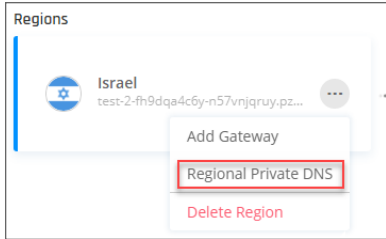


If your Private DNS Server(s) supports DoT you'll need to turn the DNS over TLS on (otherwise your requests will be sent over HTTPS).

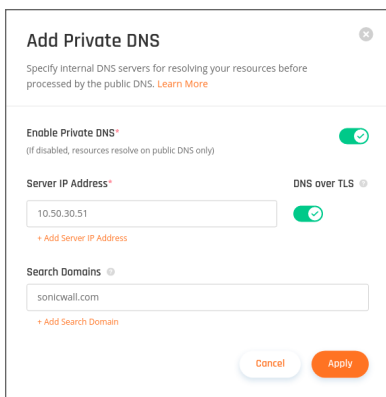
4. Enter the IP address of each one of your DNS servers. You can enter up to four different IP addresses.
NOTE: All private DNS servers should be fully synced as the system will only be resolving addresses through one of the servers. Do not configure public DNS servers (such as 8.8.8.8, 1.1.1.1, etc.), as all requests will be forwarded to them if the private DNS server won't resolve the address.
5. Wait for the Network status to change from Deploying to Active.

Connecting a Private DNS server to a Region

1. Click on the (...) icon on the desired Region.

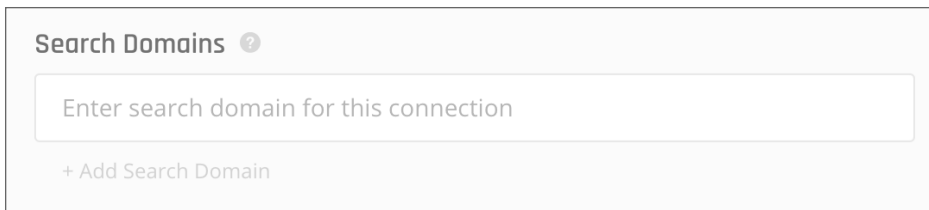


2. Turn-on the Enable Private DNS toggle.



If your Private DNS Server(s) supports DoT you'll need to turn the DNS over TLS on (otherwise your requests will be sent over HTTPS).

3. Enter the IP address of each one of your DNS servers. You can enter up to four different IP addresses.
NOTE: All private DNS servers should be fully synced as the system will only be resolving addresses through one of the servers. Do not configure public DNS servers (such as 8.8.8.8, 1.1.1.1, etc.), as all requests will be forwarded to them if the private DNS server won't resolve the address.
4. Enter any suffix that you'd like to add to the DNS query (for example, if you enter sonicwall.com as a search domain, and then type in the address bar support, you'll be directed to support@sonicwall.com).



5. Select apply, then wait for the Network status to change from Deploying to Active.

AWS Route 53 DNS

Many of you may have instances and VPC's in AWS and you are very likely utilizing AWS's Route53 DNS infrastructure. In addition to public domain zone management, AWS offers to expose certain zones via private IP access. The proper term for this is inbound and outbound endpoints. We'll be focusing on inbound endpoints in order to better architect SonicWall Cloud Edge's Private DNS feature into your network.

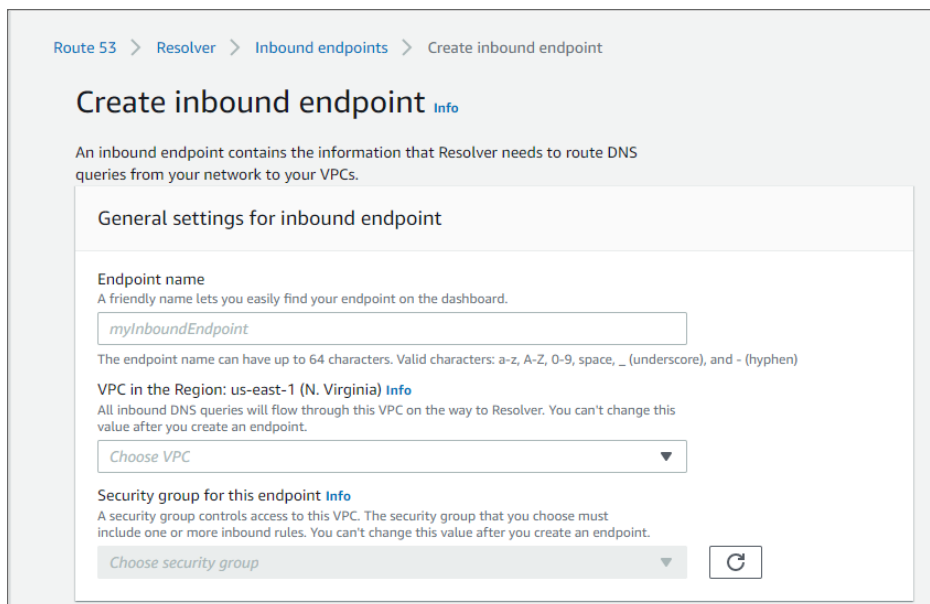
It is considered a good network security practice to make sure that internal resources for your organization's prod or perhaps dev environment are permitted access via a private subnet, making sure that valuable resources aren't on the public internet even if you have security rules in place. Managing a list of public IP's is sure to inflate the more complexity and more people you have.

Accessing internal resources by name is a huge benefit for any environment. There are always a handful set of tools that you may not want to expose to the public.

If you've spun up a tunnel from SonicWall Cloud Edge to AWS using Site to Site, then we need to spin up Inbound Endpoints and create a security group allowing requests on port 53.

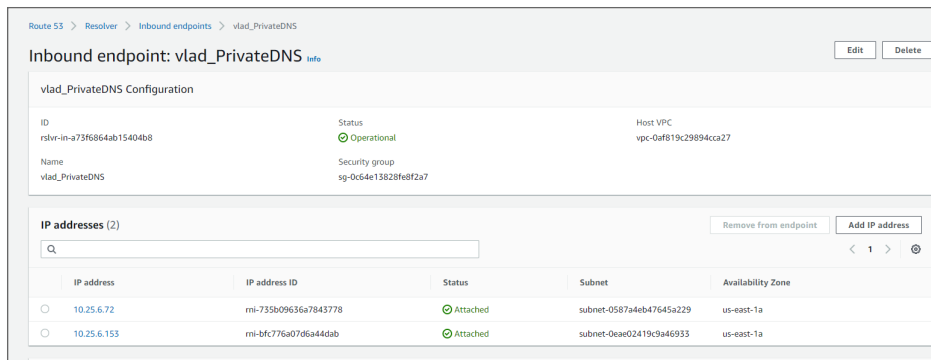
Navigate to Route 53 > Resolver > Inbound endpoints.

Create a new resolver:



The screenshot shows the AWS Route 53 console interface for creating an inbound endpoint. The breadcrumb navigation at the top reads 'Route 53 > Resolver > Inbound endpoints > Create inbound endpoint'. The main heading is 'Create inbound endpoint' with an 'Info' link. Below the heading is a descriptive text: 'An inbound endpoint contains the information that Resolver needs to route DNS queries from your network to your VPCs.' The form is titled 'General settings for inbound endpoint' and contains three sections: 1. 'Endpoint name' with a text input field containing 'myInboundEndpoint' and a note that the name can have up to 64 characters using a-z, A-Z, 0-9, space, underscore, and hyphen. 2. 'VPC in the Region: us-east-1 (N. Virginia) Info' with a dropdown menu showing 'Choose VPC'. 3. 'Security group for this endpoint Info' with a dropdown menu showing 'Choose security group' and a 'Create' button.

You should now have a resolver for each of the subnets you've selected. The resolvers will be in the form of IP addresses that you are able to configure within sonicwall Cloud Edge's **Private DNS** feature.



DNS Filtering

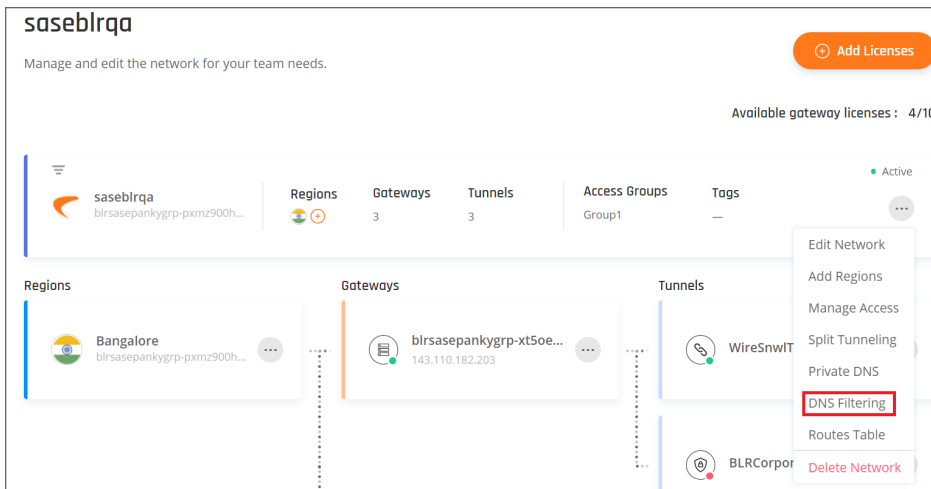
This article describes how you can add many powerful security features to your networks such as DNS Filtering to further limit exposure on your network.

Understanding DNS Filtering

DNS filtering allows you to block users in your network from navigating to webpage URLs with their internet browser. Its ability to filter out bad websites and allow access to approved ones is accomplished with blacklisting and whitelisting tools, respectively, and URLs can be blocked on an individual basis or by category (gambling, social networks, etc.). When you blacklist a URL with our DNS filtering feature, you are telling the DNS Resolver not to resolve the website associated with its unique IP address. Instead, it will display a custom message notifying users that their access to the page is restricted. Accordingly, DNS filtering is crucial for productivity and protection as well.

Activating DNS Filtering

1. Open **Networks** from the **Management Platform** and navigate to the network on which you'd like to configure DNS filtering. Select the three-dotted icon on the right side, then select **DNS Filtering**.



2. Fill in the following information:

- Enable **DNS Filtering**.
- **URL Blacklist Categories:** Block access to websites by content category (select none, one or more).
- **Whitelisted/Blacklisted URLs:** Manually enter one or more specific URL(s) you'd like to make sure stay unblocked/blocked, or upload a .CSV file containing the addresses. Make sure that the .CSV file contains only one column, and that every cell contains one URL (as shown in the attached example). The file must contain no more than 1000 addresses. Each address must follow the form domain.com (that is, without www/http/https prefixes).

	A
1	badpineapple.com
2	fakenews.co.uk
3	loveistheanswer.fr

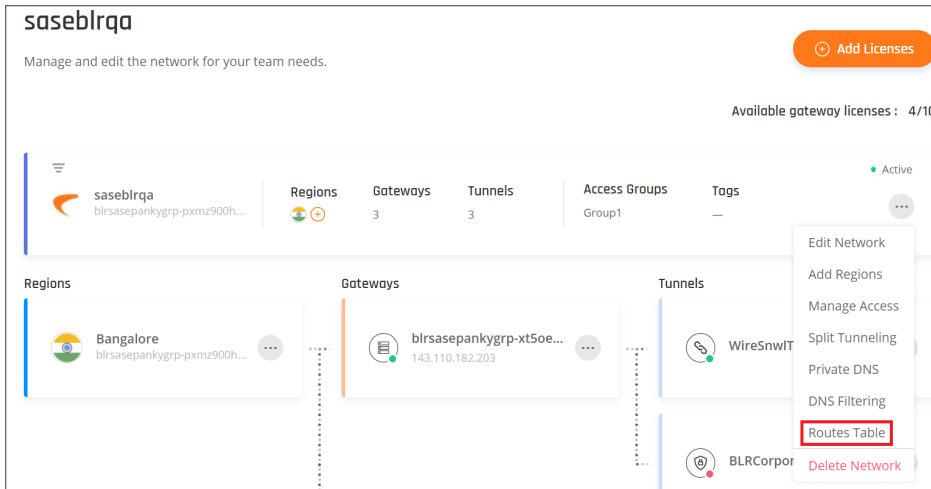
3. Select **Apply**.
4. A successful message appears. Once it has been closed the new settings will be applied the next time a user connects to the network.

Routes

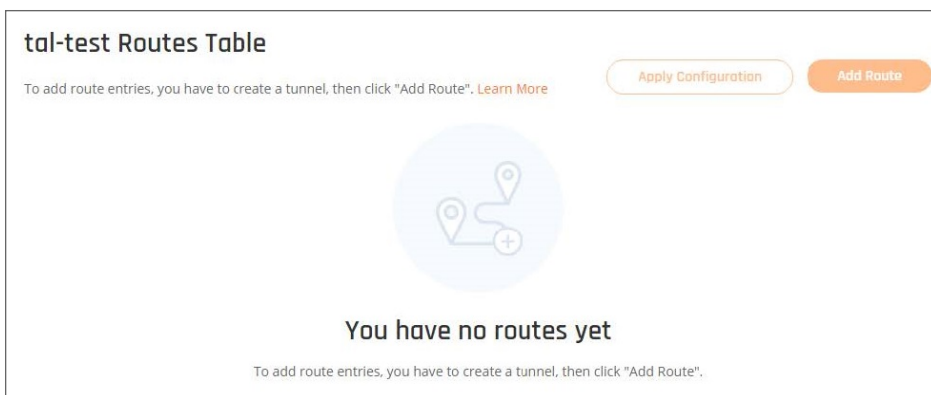
The article describes how to use routes. In most cases, once you set up the tunnel, you can specify remote subnets to be automatically added as propagated Routes. However, if you defined the Remote Gateway Proposal Subnets parameter as 0.0.0.0/0 (any), it is still possible to add manual routes and associate them with the corresponding tunnel as the exit point.

Please follow the steps below:

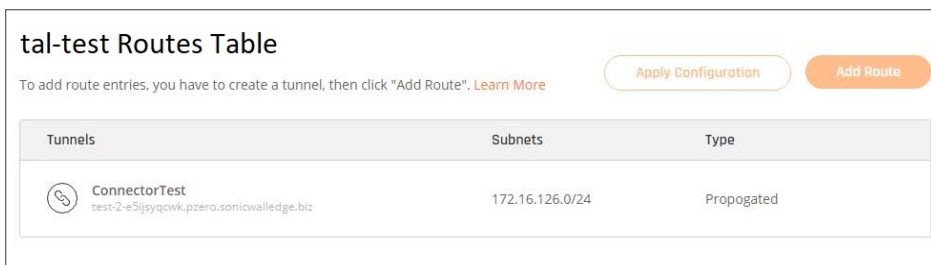
1. Go to the **Networks** tab and select the network to which you'd like to add a route. Select the three-dotted icon (...), then **Routes Table**.



The following window displays:



2. Select **Add Route** and choose the relevant tunnel.
3. Insert the desired range for the route then select **Add Route**.
4. The route will be added to the table.

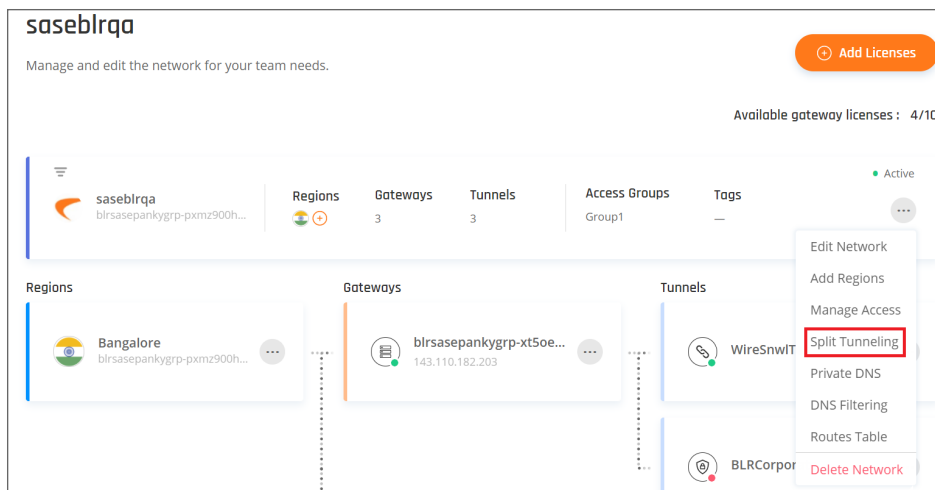


5. Select **Apply Configuration**.

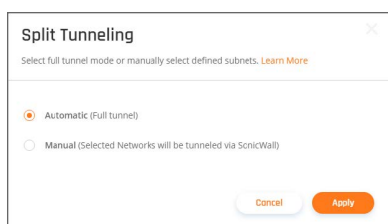
Split Tunneling

This article describes how to incorporate split tunneling into your network. If you would like to select specific network subnets to go through from the client to the SonicWall network, instead of full tunnel mode (where all the traffic is encrypted and proxied through the SonicWall CloudEdge network), you will need to manually specify which subnets you'd like to include through the tunnel.

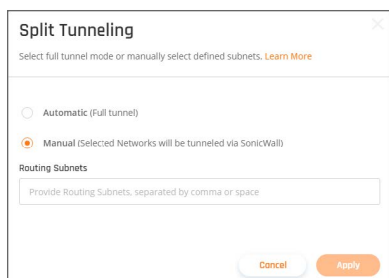
The Default Configuration is Automatic (Full Tunnel)



Split tunneling: Automatic Configuration

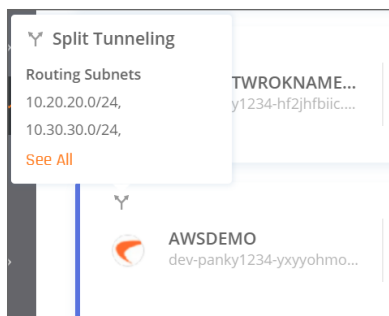


Split Tunneling: Manual Configuration



- ① **IMPORTANT:** Some Operating Systems have limitations to the amount of Split Tunneling they allow on a VPN client connection:
 - IKEv2** - The integration with Windows limits the allows up to 25 different Subnets in Split Tunneling, Mac limit is 254.
 - OpenVPN, Wireguard** - As many subnets as allowed on the local Routing Table (Usually less than 4,000 addresses)
- ① **IMPORTANT:** If you have defined more than 25 different subnets, make sure that any end-users connected using the agent are operating on either OpenVPN protocol or WireGuard protocol. In any case, it is not recommended to insert more than 254 different subnets.

After defining the split tunneling subnets, this information will be available on the **Networks** page.



Site-to-Site Interconnectivity

This article describes how to ensure that two sites are connected securely using the SonicWall Platform.

If the two sites are both tunneled to your SonicWall network, you can enable the two to communicate, regardless of their location or dependency so that both sites will have a full and secure line between them.

Please follow the steps below:

IPSec based connections

1. Ensure both tunnels are route-based tunnels; that is, they do not depend on a specific internal subnet to create a handshake between the sites, but a route is configured on each device's separate Route Table indicating which subnets to forward into the tunnel.
2. On the **Management Platform**, set both tunnel's "Gateway Proposal Subnets" and "Remote gateway Proposal Subnets" to ANY (0.0.0.0/0).
This may make the tunnel go down! Please make sure the device you are using supports route-based VPN. This means the tunnel is set up to 0.0.0.0/0 and a route is added separately.
3. Make sure the Routes Table on the SonicWall side has all of the routes of all of the sites configured (Network/ Route Tables) so in case you had them defined within the tunnel module, instead you need to add them here.

Africa Routes Table

To add route entries, you have to create a tunnel, then click "Add Route". [Learn More](#) Apply Configuration Add Route

Tunnels	Subnets	Type
ConnectorTest test-2-e5jjsyqwk.pzero.sonicwalledge.biz	172.16.126.0/24	Propogated

4. Click **Add Route** and add the routing to the internal LAN subnets that are behind each tunnel.

Add Route

Tunnel
Site1

Subnets
192.168.0.0/16

Cancel Add Route

5. After you are done, click **Apply Configuration**.

Africa Routes Table

To add route entries, you have to create a tunnel, then click "Add Route". [Learn More](#) Apply Configuration Add Route

Tunnels	Subnets	Type
ConnectorTest test-2-e5jjsyqwk.pzero.sonicwalledge.biz	172.16.126.0/24	Propogated
Site1	192.168.0.0/16	Propogated

6. Go to the first site's (labeled Site1) routing table, and in addition to the route that indicates all subnets (usually 10.255.0.0/16) to go through the Site to site tunnel, add a route dictating all traffic that goes to the second site's LAN subnet as well.
7. Go to the second site's (labeled Site2) routing table, and set up a static route indicating both the LAN subnet and Site1's LAN subnet to go through the IPSEC Site-2-Site tunnel.

WireGuard based connections

1. In order to establish a connection from one resource to another, you'll need to reinstall the connector, as the default installation (Accessor mode) does not allow it.

Uninstall Commands

- **Ubuntu**

```
# Locate the WireGuard packages (the output of this command is the full
package name)
dpkg -l | grep wireguard
# Delete all packages found that are associated with WireGuard (replace pkg
with the output from the previous command)
apt-get remove --purge pkg
```

- **CentOS**

```
# Locate the WireGuard packages (the output of this command is the full
package name)
yum list installed | grep wireguard
# Delete all packages found that are associated with WireGuard (replace pkg
with the output from the previous command)
yum remove pkg
```

2. Once you successfully removed the files mentioned in the commands above, reboot the machine and execute the connector installation script (the curl command that you copied from the Management Platform).
3. When you reach the 4th step, choose NO (n), which will prevent accessor mode installation.
4. Proceed with the installation. Make sure to select YES (y) for both IP Forwarding and Routing all traffic.
5. Open the route table of the network in which the WireGuard connector is installed (usually your router or firewall).
6. Configure a static route dictating all traffic from your SonicWall LAN subnet (10.XXX.0.0/16) to go through the IP of the machine that hosts the connector.
7. Open the terminal of the machine that hosts the connector and execute the following command:

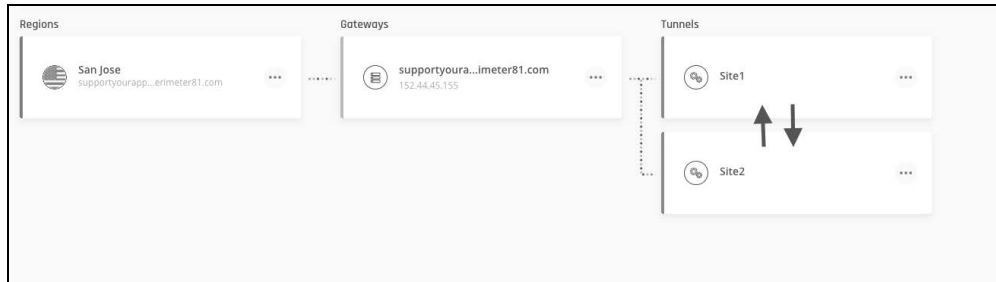
Shell

```
# Temporarily shut the connector down
wg-quick down wg0
# Open the connector's route table.
vi /etc/wireguard/wg0.conf
```

```
# Enter the subnets of the resources you'd like to communicate with each other
set AllowedIPs = <SonicWall Subnet>, <Site1 Subnet>,< Site 2 Subnet>
# Turn the connector up
wg-quick up wg0
# Make sure that the desired change has taken place
wg show
```

Multi-Tunneling

SonicWall Cloud Edge does not limit the number of tunnels that can be connected to a single gateway, so in case you only have one gateway in a particular network, but your company's infrastructure consists of a hybrid environment (a mixture of different on-prem and cloud-based resources) you don't need to worry.



❶ | **IMPORTANT:** Before you configure a second tunnel, make sure that the remote network's subnet does not overlap with the existing network's subnet.

Once the two tunnels are up and running, you'll be able to set up a communication line between the two (see [Interconnectivity](#)).

Dynamic-IP Tunnels

In order to establish a site-to-site tunnel (IPSec or WireGuard) between your SonicWall Cloud Edge gateway and a firewall/router with a dynamic public IP address, you will need to apply some modifications to the tunnel creation process. Follow the instructions below.

❶ | **NOTE:** This option is not supported by cloud IaaS providers (such as AWS, GCP, or Azure).

IPSec based connections

1. When creating the tunnel at the SonicWall Cloud Edge platform fill in the General Settings section with the following information:


- **Name:** Enter a name of your choice.
 - **Shared Secret:** Enter a string of at least 8 characters or use the Generate button. Make sure to copy and save it, as it'll be required when setting up the tunnel on your firewall/router management interface.
 - **Public IP:** Enter 0.0.0.0
 - **Remote ID:** Enter a string of your own choice. This parameter will use as an additional shared secret, providing an extra level of security. Copy and save it as it'll be used as the left ID (local ID or local identification) when setting the tunnel on your firewall/router management interface.
 ⓘ | **IMPORTANT:** 0.0.0.0 is not an acceptable value for the Remote ID.
 - **SonicWall Gateway Proposal Subnet:** Specify your SonicWall network subnet (do not choose any).
 - **Remote Gateway Proposal Subnet:** Specify your on-premises internal network subnet.
2. In the Advanced Settings section make sure to select IKEv2 only. The rest of the values remain the same as appropriate.
 3. When setting up the tunnel at the firewall/router management interface fill in the following information:
 - **Local IP:** Since you're using a dynamic IP, enter a default value (this will vary between different vendors).
 - **Local Identification/Local ID/My identifier:** Fill in the same value you set for Remote ID at the SonicWall Cloud Edge platform.
 - **Remote IP/Remote ID/Peer Identifier:** Enter your SonicWall Cloud Edge gateway IP address.
 - **IKE Version:** IKEv2

Phase 1 Proposal (Authentication)	
Authentication Method	Mutual PSK <small>Must match the setting chosen on the remote side.</small>
Negotiation mode	Main <small>Aggressive is more flexible, but less secure.</small>
My identifier	Distinguished name <small>The Remote ID you set on the CE Platform</small>
Peer identifier	IP address <small>your CE Gateway IP</small>

4. Fill in the rest of the fields as appropriate.

WireGuard based connections

1. When creating the tunnel at the SonicWall Cloud Edge platform fill in the General Settings section with the following information:



WireGuard Connector

Interconnect AWS/Azure/GCP/other DC with easy to use connector. [Learn More](#)

✕

Requirements
 2 Configuration
 Confirm

Name* ⓘ

Endpoint* ⓘ

Subnets* ⓘ

Back
Next

- **Name:** Enter a name of your choice.
- **Endpoint:** Enter 0.0.0.0
- **Subnets:** Enter your internal on-premises network's subnet.

2. Follow the rest as appropriate.

Whitelisting Resources

Topics:

- [Benefits of Whitelisting](#)
- [Microsoft Azure](#)
- [SalesForce](#)
- [AWS-EC2 Security Groups](#)
- [Google Cloud Platform](#)

Benefits of Whitelisting

This article describes what whitelisting is. Whitelisting is the practice of explicitly allowing some identified entities access to a particular privilege, service, mobility, access, or recognition.

While IP whitelisting does not encrypt your data the way a [site-to-site connection](#) does, it can come in handy if you'd like to save time and avoid the trouble to set one up, as it still limits access to your resources - an entire network or a specific machine or application. Once whitelisting your gateway IP, the resource will be accessible only for devices using this particular IP, that is, connected to the SonicWall.

Microsoft Azure

This article describes how to whitelist your SonicWall Cloud Edge Gateway at the Microsoft Azure Portal, which allows you to restrict access to a certain resource within an Azure Virtual Network to users connected to the secure SonicWall Cloud Edge gateway only. While this method needs to be applied to every particular resource, it is a good alternative for those who'd like to avoid setting up a Site-to-Site connection to a VNet.

1. Open the Azure Portal and select the resource which you'd like to restrict access to.
2. Navigate to the **Networking** tab and select **Add inbound port rule**.
3. Fill in the following information:

- **Source:** IP Addresses
- **Source IP addresses/CIDR ranges:** Insert your Gateway IP
- **Source port ranges:** (all)
- **Destination:** Any
- **Destination port ranges:** (all)

- **Protocol:** Any
- **Action:** Allow
- **Priority:** Leave default value
- **Name:** Connector
- **Description:** Optional

4. Select **Add rule**.

SalesForce

This article describes how to **whitelist** Salesforce for your network. Trusted IP ranges in Salesforce block unauthorized access as there are no location restrictions with the platform's default settings. After specifying a Trusted IP range, only authorized SonicWall users from your Private Server will have access to Salesforce resources.

Setting up Salesforce

1. Navigate to the **Setup** section of Salesforce and in the **Quick Find** search box type "Network Access".
2. Select **New** and then fill in the Private Server IP address, entering both the start and end of the IP range and adding a description.
3. Select **Save**.



AWS-EC2 Security Groups

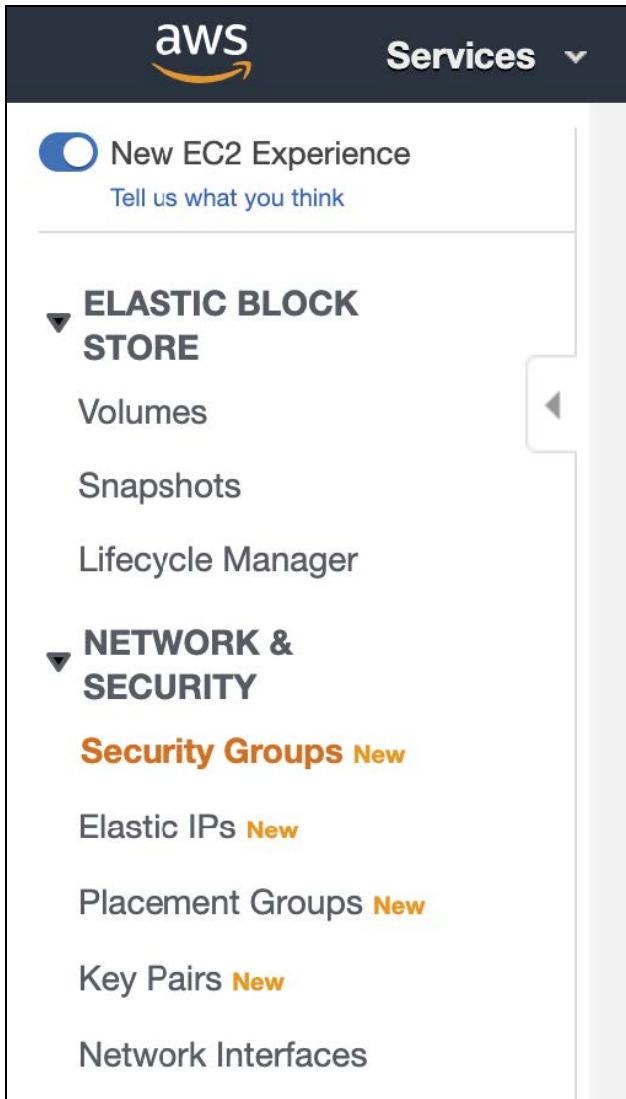
This article describes how to **whitelist** your SonicWall Cloud Edge Gateway at the AWS Management Console, which will allow you to restrict the access to a certain resource within a VPC to users connected to the secure SonicWall Cloud Edge Gateway only. While this method needs to be applied to every particular resource, it is a good alternative for those who'd like to avoid setting up a Site-to-Site connection to a VPC.

- Create a security group
- Attach resources to the security group

Please follow the steps below:

Create a security group

1. Open the AWS Management Console EC2 dashboard.
2. Navigate to **Security Groups**.



3. Select **Create** and fill in the following information:

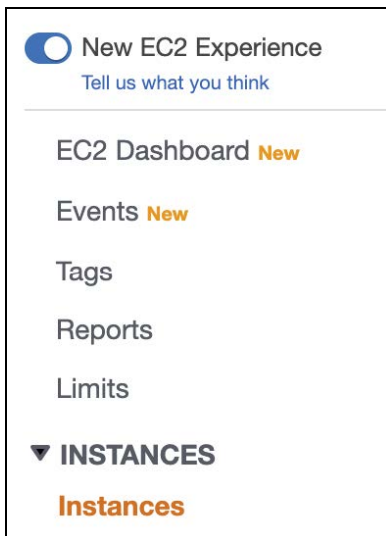
The image shows the 'Create security group' form in the AWS console. The breadcrumb navigation at the top reads 'EC2 > Security Groups > Create security group'. The title is 'Create security group' with an 'info' link. Below the title is a descriptive sentence: 'A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.' The form is divided into a 'Basic details' section. It contains three fields: 'Security group name' with the value 'MyWebServerGroup' and a note 'Name cannot be edited after creation.'; 'Description' with the value 'Allows SSH access to developers'; and 'VPC' with a dropdown menu showing 'vpc-0851a4a8314b63b94 (P81 Staging)'. There are 'info' links next to the name, description, and VPC labels.

- **Security group name:** Enter a name of your choice.
- **Description:** Describe the use case of the group. The description can be up to 255 characters long.
- **VPC:** Select the appropriate VPC. If you are using VPC peering, you can later update the rules for your VPC security groups to [reference security groups in the peered VPC](#). In case you are using a Transit Gateway, note that spoke Amazon VPCs cannot reference security groups in other spokes connected to the same AWS Transit Gateway.
- **Add** an inbound rule according to the following
 - **Type:** All traffic
 - **Protocol:** All
 - **Port range:** All
 - **Source:** Custom; Insert your SonicWall Cloud Edge Gateway IP
 - **Description:** (optional)

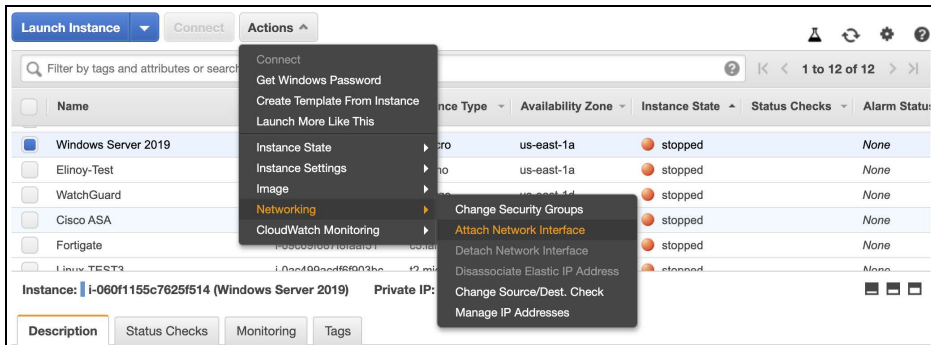
- Select **Create security group**.

Attach resources to the security group

1. Return to the EC2 dashboard.
2. Select the **Instances** tab within the **Instances** section.



3. Select the instance you'd like to apply the Security Group to. Select **Actions /Networking /Change Security Groups**.



4. Select the newly created security group, then select **Assign security group**.



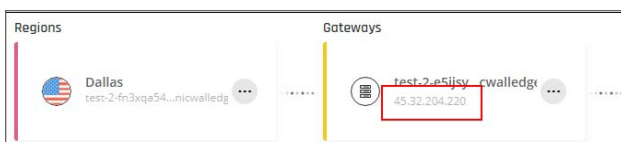
Google Cloud Platform

This article describes how to **whitelist** your SonicWall Cloud Edge Gateway at Google Cloud Platform, which will allow you to restrict the access to a certain VPC to users connected to the secured SonicWall Cloud Edge gateway only. The following steps are required:

- Querying your gateway IP address
- Configuring a rule in Google Cloud Platform Firewall

Querying your gateway IP Address

1. Open the SonicWall Cloud Edge **Management Platform**.
2. At the left toolbar, select the **Networks** tab.
3. Select the network that contains the gateway which you'd like to whitelist.
4. Copy the gateway IP as shown in the screenshot.



Configuring a rule in Google Cloud Platform Firewall

1. Open the GCP console.
2. In the left toolbar, select **VPC network**, then **Firewall rules**.
3. Select Create Firewall Rule, and fill in according to the following:

Create a firewall rule

Firewall rules control incoming or outgoing traffic to an instance. By default, incoming traffic from outside your network is blocked. [Learn more](#)

Name *
Sonicwall - Whitelist ?
Lowercase letters, numbers, hyphens allowed

Description

Logs
Turning on firewall logs can generate a large number of logs which can increase costs in Stackdriver. [Learn more](#)
 On
 Off

Network *
default ?

Priority *
1000 ?
Priority can be 0 - 65535 [Check priority of other firewall rules](#)

- **Name:** Choose the name of your own choice.
- **Description:** Let other administrators know what this rule serves for (optional).
- **Logs:** You can choose to log traffic related to the rule (this may lead to additional costs on Google's side).
- **Network:** Choose the network that contains the resources that you'd like to whitelist.
- **Priority:** Leave default values.

Direction of traffic ?

Ingress
 Egress

Action on match ?

Allow
 Deny

Targets
All instances in the network

Source filter
IP ranges

Source IP ranges *

Second source filter
None

Protocols and ports ?

Allow all
 Specified protocols and ports

tcp : 20, 50-60

udp : all

Other protocols
protocols, comma separated, e.g. ah, sctp

DISABLE RULE

CREATE CANCEL

Equivalent [REST](#) or [command line](#)

- **Direction of traffic:** Ingress
- **Action on match:** Allow
- **Targets:** Depending on your needs, choose the entire network (**All instances in the network**) or choose resources that are labeled with a certain tag (**Specified target tags**).
- **Source filter:** IP ranges
- **Source IP ranges:** Paste the IP address of the gateway and add /32, for instance 37.142.39.122/32.
- **Second source filter:** None
- **Protocols and ports:** Allow all.

4. Select **Create**.

Client-Based Access

Topics:

- [MDM App Deployment](#)
- [SCCM Agent Deployment](#)
- [JAMF Cloud](#)

MDM App Deployment

The deployment process of SonicWall Cloud Edge varies depending on your MDM (Mobile Device Management) provider and is done utilizing a public app deployment process.

- Connector for Android: Download from the SonicWall Cloud Edge portal, <https://static.sonicwalledge.com/apps/android/SonicWallCloudEdge.apk>
- Connector for iOS: <https://www.apple.com/in/search/sonicwall?src=serp>
- Connector for MacOS: <https://static.sonicwalledge.com/apps/osx/sdp/SonicWallCloudEdge.dmg>

Below are links to deployment guides for common MDM providers:

- [VMWare AirWatch](#)
- [MobileIron](#) - SonicWall Cloud Edge deployment is done using the App Catalog. Follow the link below for how to add an app from the Public App Stores.: http://mi.extendedhelp.mobileiron.com/45/all/en/desktop/App_Catalog.htm
- [Microsoft EndPoint Manager \(Intune\)](#)
- [JAMF Cloud](#)
- [Meraki](#)

.msi Installation Flags

Silent Installation:

- `msiexec /quiet /i SonicWallCloudEdge.msi`

Silent Installation and get the installation status back to the deployment service:

- start /wait msiexec /quiet /i "SonicWallCloudEdge.msi"
- echo %errorlevel%

Uninstallation:

- msiexec /x "SonicWallCloudEdge.msi"

.pkg Installation Flags

Silent Installation:

- \$ sudo installer -pkg SonicWallCloudEdge.pkg -target /

SCCM Agent Deployment

If the devices in your organization are managed through a central desktop management tool you may prefer remote installation instead of having team members download and install the app on their own. The following guide contains instructions for **ManageEngine**, **JAMF Cloud** and **SCCM**. If using a different tool, please [contact us via email](#) and our engineers will be happy to provide you with a suitable solution.

Deployment Flags

Some SCCM solutions may require deployment flags in order to silently install the CloudEdge agents.

Windows Installation, example 1:

- msiexec /quiet /i SonicWallCloudEdge.msi

Windows Installation, example 2:

- start /wait msiexec /quiet /i "SonicWallCloudEdge.msi"
- echo %errorlevel%

Uninstallation:

- msiexec /x "SonicWallCloudEdge.msi"

MacOS:

- sudo installer -pkg SonicWallCloudEdge.dmg -target /

⚠ | WARNING: Only the above flags are allowed via the .msi installation.

Manage Engine

1. Navigate to **Software Deployment > Install/Uninstall Software Configuration > Computer configuration**.
2. Provide a name and description for the configuration.
3. Select the Package.
4. Select the **Operation Type** as Install, Uninstall, or Advertise as the case may be.
5. Specify the user account as which the software needs to be installed as a system user or any specific user.
6. If you wish to involve user interaction while deploying the software, enable the appropriate checkbox.
7. Configure the scheduler settings and choose the deployment policy.
8. Upon defining the target, select **Deploy**.

System Center Configuration Manager (SCCM)

1. In the Configuration Manager console, go to the **Software Library** workspace, expand **Application Management**, and select the **Applications** node.
2. From the **Home** tab, select **Create** group and select **Import Application** from the ribbon.
3. On the **General** page of the **Import Application Wizard**, specify the network path to the **File** to import.
4. On the **File Content** page, select the action to take if this application is a duplicate of an existing application. Create a new application, or ignore the duplicate and add a new revision to the existing application.
5. On the **Summary** page, review the actions, and finish the wizard.
The new application appears in the **Applications** node.

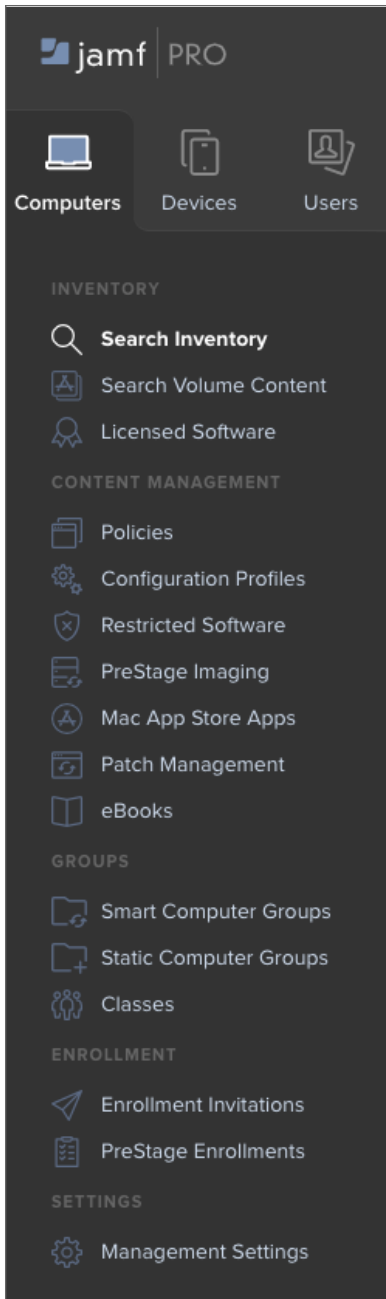
JAMF Cloud

This guide demonstrates how to distribute the SonicWall Cloud Edge endpoint application to macOS users using JAMF.

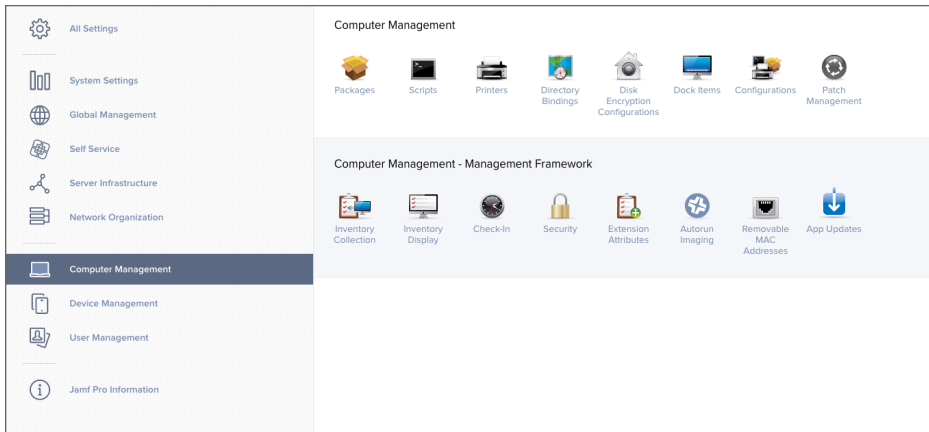
Follow the steps below:

- Upload the SonicWall Cloud Edge application
- Set an installation policy

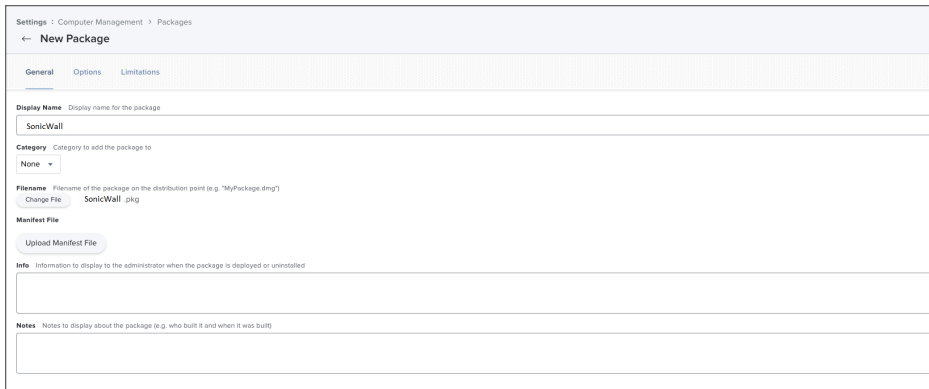
1. Open the JAMF console/Computers/Management Settings.



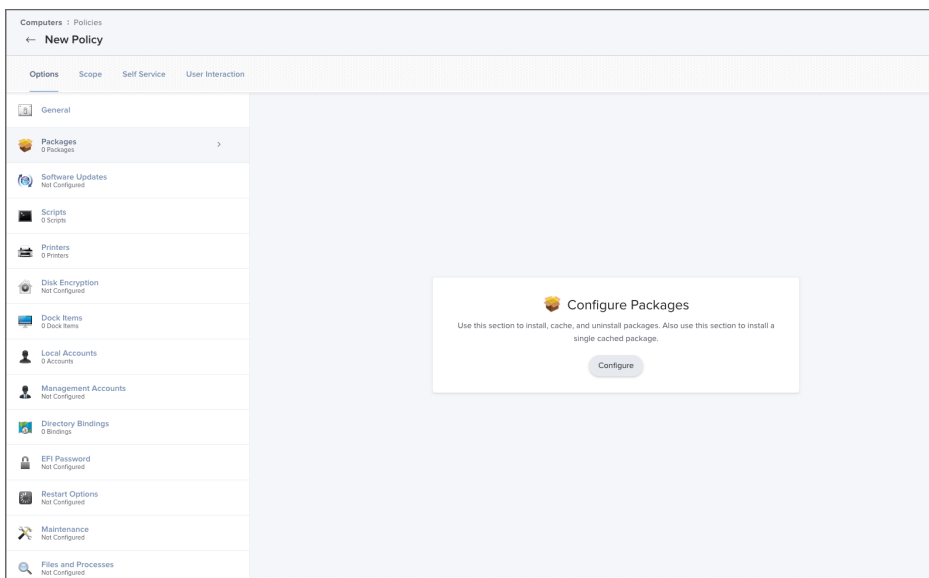
2. Select Computer Management/Package.



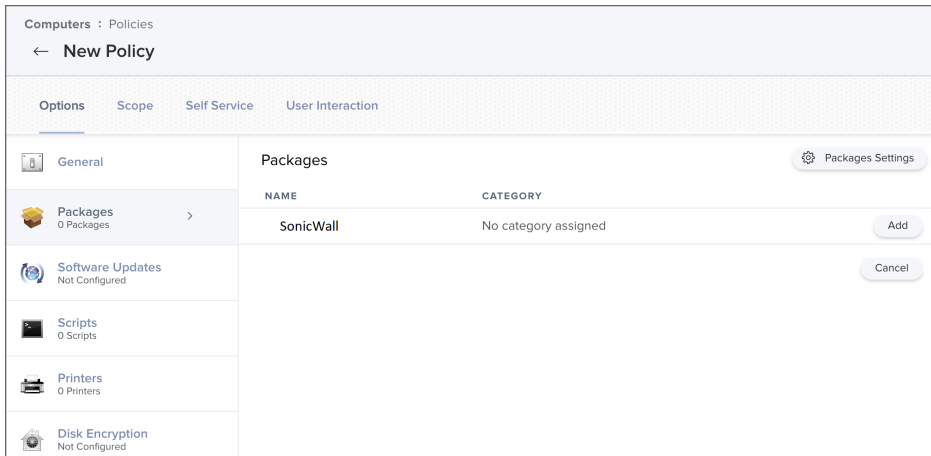
3. Fill in the SonicWall Cloud Edge information and upload the installation file.



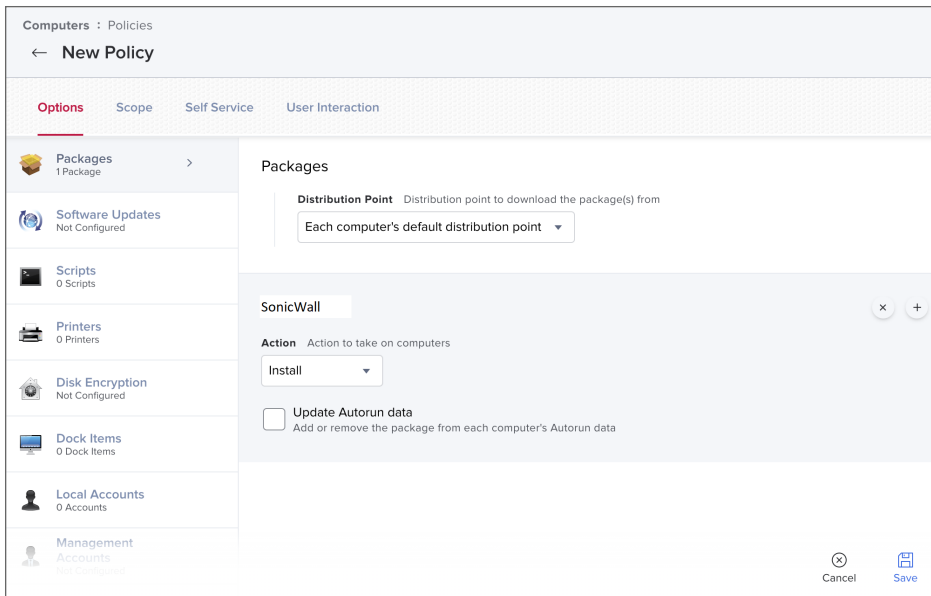
4. Open the JAMF console/policies.



5. Select New Policy.



6. Select the package.



7. Add SonicWall Cloud Edge and configure the rest of the tabs for your requirements.

8. Select Save.

Client-less Access (Zero Trust Applications)

Topics:

- [URL Aliasing](#)
- [RDP Security Mode](#)

URL Aliasing

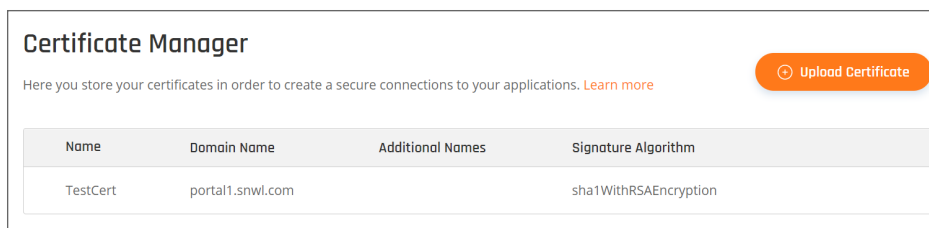
This article describes how to configure a URL alias for a Zero Trust application, thus enabling you to connect to the application with a domain-associated user-friendly URL.

- Uploading domain SSL certificates
- Creating a URL alias for your application

Upload domain SSL certificates

A domain-validated certificate (DV) is an X.509 digital certificate typically used for Transport Layer Security (TLS) where the domain name of the applicant is validated by proving some control over a DNS domain.

1. To add Application Domain Certificates, go to **Settings/Certification Manager**.



2. The **Upload Certificate** screen displays. Fill in the **Certificate Body**, **PrivateKey**, and **Chain**.

Upload Certificate
Upload the SSL certificate to our trusted store.

Select Certificate

Certificate name*
Enter certificate name

Certificate body* [Upload PEM/CERT/PFX File](#)
----- BEGIN CERTIFICATE -----
MIIDpDCCAoygAwIBAgIGAVyqGLcMA0GCSqGSIb3GSIwCQYDVQQLGEw
JMIIDpDDQEBcm5pYTEwMBQGA1UE
----- END CERTIFICATE -----

Certificate private key* [Upload PEM/CERT/PFX File](#)

What is SSL Certificate?
SSL Certificates are small data files that digitally bind a cryptographic key to an organization's details. When installed on a web server, allows secure connections from a web server to a browser.

[Learn how to upload certificate](#)

3. Select **Validate** to ensure this certificate is correct:

Upload Certificate
Upload the SSL edge certificate to our trusted store.

Select Certificate

Domains: safervpn.com, *safervpn.com
Expires in: 26 Days
Public key info: RSA - 2048
Signature algorithm: SHA256WITHRSA

Certificate body*
-----BEGIN CERTIFICATE-----
MIIDpDCCAoygAwIBAgIGAVyqGLcMA0GCSqGSIb3DQEBChUAMIGSMQsw
CQYDVQQLGEwJVIJZETMBEQA1UECAwKQ2FsaWZvcml5pYTEwMBQGA1UE

Certificate private key*
-----BEGIN CERTIFICATE-----
MIIDpDCCAoygAwIBAgIGAVyqGLcMA0GCSqGSIb3DQEBChUAMIGSMQsw
CQYDVQQLGEwJVIJZETMBEQA1UECAwKQ2FsaWZvcml5pYTEwMBQGA1UE

Certificate chain
-----BEGIN CERTIFICATE-----
MIIDpDCCAoygAwIBAgIGAVyqGLcMA0GCSqGSIb3DQEBChUAMIGSMQsw
CQYDVQQLGEwJVIJZETMBEQA1UECAwKQ2FsaWZvcml5pYTEwMBQGA1UE

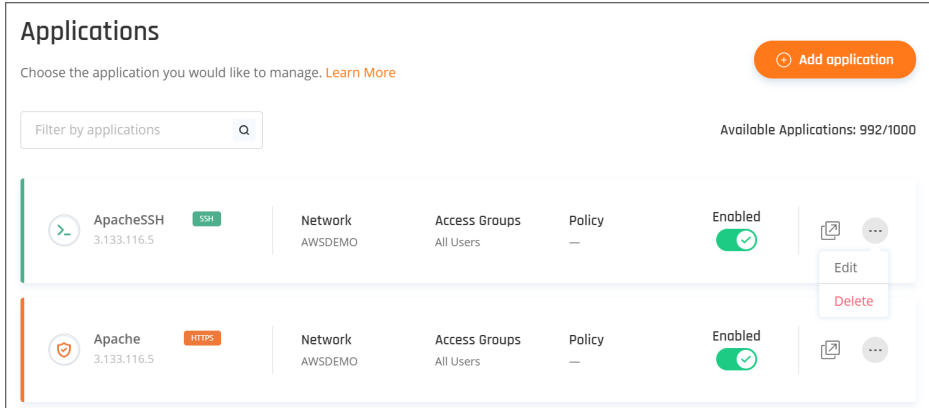
[Cancel](#) [Apply](#)

4. Select **Apply** to upload the certificate.

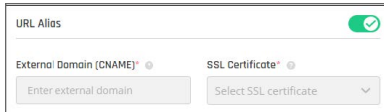
Creating a URL alias for your application

1. URL aliasing can be configured for any zero trust application. When creating the app follow these additional steps.

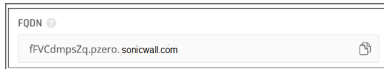
① | **IMPORTANT:** Once the app has been created, you won't be able to add a URL alias.



2. Enable URL Alias. Choose a CNAME associated with your domain and the correlating certificate (for example *myapplication.mydomain.com*).



3. Go to your DNS administrator (for instance GoDaddy or R53 in AWS). Define a CNAME under your domain (identical to the CNAME you inserted in the SonicWall Cloud Edge) and point it to application FQDN (the FQDN will appear in the app settings once you click to apply).



RDP Security Mode

This article describes how to configure RDP Security Mode for a Zero Trust RDP Application to a remote Windows instance, such as Windows Server 2016 / Windows 10.

① | **NOTE:** Make sure you are familiar with the server's authentication methods (username and password or RDP keys) and that you have a tunnel connecting your network and the environment that hosts the Windows instance.

This mode dictates how data will be encrypted and what type of authentication will be performed if any. By default, a security mode is selected based on a negotiation process that determines what both the client and the server support.

Possible values are:

- **any:** Automatically select the security mode based on the security protocols supported by both the client and the server. This is the default.
- **nla:** Network Level Authentication, sometimes also referred to as "hybrid" or CredSSP (the protocol that drives NLA). This mode uses TLS encryption and requires the username and password to be given in advance. Unlike RDP mode, the authentication step is performed before the remote desktop session actually starts, avoiding the need for the Windows server to allocate significant resources for users that may not be authorized.
- **nla-ext:** Extended Network Level Authentication. This mode is identical to NLA except that an additional "Early User Authorization Result" is required to be sent from the server to the client immediately after the NLA handshake is completed.
- **tls:** RDP authentication and encryption implemented via TLS (Transport Layer Security). Also referred to as RDSTLS, the TLS security mode is primarily used in load-balanced configurations where the initial RDP server may redirect the connection to a different RDP server.
- **vmconnect:** Automatically select the security mode based on the security protocols supported by both the client and the server, limiting that negotiation to only the protocols known to be supported by Hyper-V / VMConnect.
- **rdp:** Standard RDP encryption. This mode is generally only used for older Windows servers or in cases where a standard Windows login screen is desired. Newer versions of Windows have this mode disabled by default and will only accept NLA unless explicitly configured otherwise.

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

① | **NOTE:** A NOTE icon indicates supporting information.

① | **IMPORTANT:** An IMPORTANT icon indicates supporting information.

① | **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.

Cloud Edge Secure Access Advanced Settings
Updated - March 2022
232-005538-00 Rev E

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

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Attn: Jennifer Anderson
1033 McCarthy Blvd
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