SonicWall[®] Global Management System DPI-SSL

Administration



Contents

Configuring Client DPI-SSL Settings
Configuring General Settings 2
Selecting the Re-Signing Certificate Authority 4
Configuring Exclusions and Inclusions
Excluding/Including Objects/Groups6
Excluding/Including by Common Name7
Specifying CFS Category-based Exclusions/Inclusions
Client DPI-SSL Examples
Content Filtering
App Rules
Configuring Server DPI-SSL Settings
Configuring General Server DPI-SSL Settings 14
Configuring Exclusions and Inclusions
SonicWall Support
About This Document

Configuring Client DPI-SSL Settings

The Client DPI-SSL deployment scenario typically is used to inspect HTTPS traffic when clients on the LAN browse content located on the WAN. In this scenario, the firewall typically does not own the certificates and private keys for the content it is inspecting. After performing DPI-SSL inspection, the appliance re-writes the certificate sent by the remote server and signs this newly generated certificate with the certificate specified in the Client DPI-SSL configuration. By default, this is the firewall certificate authority (CA) certificate, but a different certificate can be specified. Users should be instructed to add the certificate to their browser's trusted list to avoid certificate trust errors.

Topics:

- Configuring General Settings
- Selecting the Re-Signing Certificate Authority
- Configuring Exclusions and Inclusions
- Client DPI-SSL Examples

Configuring General Settings

To enable Client DPI-SSL inspection:

- 1 Navigate to the **DPI-SSL > Client SSL | General** page.
- 2 In the General Settings section,

	General	Certificates Obje	cts Common Name	CFS Category-based Exclusion/Inclusion
GENERAL SETT	NGS			
		Enable S	Client Inspection	
			Dravention	
			Anti-virus	
		Gateway	Anti-Spyware	
		Applicati	on Firewall	
		Content	ilter	
		Always a	uthenticate server for decry	pted connections (i)
		Allow Ex	pired CA 🕡	
		Deploym	ents wherein the Firewall se	es a single server IP for different server domains, ex: Proxy setup $~~\widehat{\it (i)}$
		Allow SS	L without decryption (bypas	s) when connection limit exceeded ①
		Audit ne	v built-in exclusion domain r	names prior to being added for exclusion (i)
		Always a	uthenticate server before ap	plying exclusion policy (i)
				Update Reset

3 Select Enable SSL Client Inspection. By default, this checkbox is not enabled.

- 4 Select one or more of the following services with which to perform inspection; none are selected by default:
 - Intrusion Prevention
 - Gateway Anti-Virus
 - Gateway Anti-Spyware
 - Application Firewall
 - Content Filter
- 5 To authenticate servers for decrypted/intercepted connections, select **Always authenticate server for decrypted connections**. When enabled, DPI-SSL blocks those connections:
 - To sites with untrusted certificates.
 - If the domain name in the Client Hello cannot be validated against the Server Certificate for the connection.

By default, this checkbox is not enabled.

- IMPORTANT: Only enable this option if you need a high level of security. Blocked connections show up in the connection failures list, as described in Specifying CFS Category-based Exclusions/Inclusions.
- TIP: If you enable this option, use the Skip CFS Category-based Exclusion option (see Excluding/Including Common Names) to exclude a particular domain or domains from this global authenticate option. This is useful to override any server authentication-related failures of trusted sites.
- 6 To disable use of the server IP address-based dynamic cache for exclusion, select **Deployments wherein the Firewall sees a single server IP for different server domains, ex: Proxy setup.** By default, this checkbox is not enabled.

This option is useful for proxy deployments, where all client browsers redirect to a proxy server, including if appliance is between the client browsers and the proxy server. All DPI-SSL features are supported, including domain exclusions when the domain is part of a virtual hosting server, as part of a server farm fronted with a load balancer, or in some cloud deployments, wherein the same server IP can be used by multiple domains.

In such deployments, all server IPs as seen by the appliance are the proxy server's IP. It is, therefore, imperative that in proxy deployments, IP-based exclusion cache is disabled. Enabling this option does not affect the capability of the GMS to perform exclusions.

7 By default, new connections over the DPI-SSL connection limit are bypassed. To allow new connections to bypass decryption instead of being dropped when the connection limit is exceeded, select Allow SSL without decryption (bypass) when connection limit exceeded. This option is not enabled by default.

To ensure new connections over the DPI-SSL connection limit are dropped, deselect/disable this checkbox.

8 To audit new, built-in exclusion domain names before they are added for exclusion, select **Audit new built-in exclusion domain names prior to being added for exclusion**. By default, this checkbox is not enabled.

When this option is enabled, whenever changes to the built-in exclusion list occur, for example, an upgrade to a new firmware image or other system-related actions, a notification pop-up dialog displays over the **Client SSL** page with the changes. You can inspect/audit the new changes and accept or reject any, some, or all of the new changes to the built-in exclusion list. At this point, the run-time exclusion list is updated to reflect the new changes.

If this option is disabled, the GMS accepts all new changes to the built-in exclusion list and adds them automatically.

- 9 To always authenticate a server before applying a common-name or category exclusion policy, select Always authenticate server before applying exclusion policy. When enabled, DPI-SSL blocks excluded connections:
 - To sites with untrusted certificates.
 - If the domain name in the Client Hello cannot be validated against the Server Certificate for the . connection.

This is a useful feature to authenticate the server connection before applying exclusion policies. Enabling this option ensures that the appliance does not blindly apply exclusion on connections and thereby create a security hole for exclusion sites or sites belonging to excluded categories. This is especially relevant when banking sites, as a category, are excluded.

By validating both the server certificate and the domain name in the Client Hello before applying an exclusion policy, the GMS can reject untrusted sites and potentially block a type of zero-day attack from taking place. The GMS implementation takes the "trust-but-verify" approach to ensure that a domain name that matches the exclusion policy criteria is validated first, thus preventing an unsuspecting client from phishing or URL-redirect-related attacks.

By default, this checkbox is not enabled.



(i) IMPORTANT: If you are excluding alternate domains in the Subject-Alternate-Name extension, it is recommended that you enable this option.

TIP: If you enable this option, use the Skip CFS Category-based Exclusion option (see (j) Excluding/Including Common Names) to exclude a particular domain or domains from this global authenticate option. This is useful to override any server authentication-related failures of trusted sites.

10 Click Update.

Selecting the Re-Signing Certificate **Authority**

The re-signing certificate replaces the original certificate signing authority only if that authority certificate is trusted by the firewall. If the authority is not trusted, then the certificate is self-signed. To avoid certificate errors, choose a certificate that is trusted by devices protected by DPI-SSL.

NOTE: For information about requesting/creating a DPI SSL Certificate Authority (CA) certificate, see the (i) Knowledge Base article, How to request/create DPI-SSL Certificate Authority (CA) certificates for the purpose of DPI-SSL certificate resigning (SW14090).

To select a re-signing certificate:

- 1 Navigate to the **DPI-SSL > Client SSL | Certificates** page.
- 2 Scroll to the **Certification Re-signing Authority** section.
- 3 Select the certificate to use from the Certificate drop-down menu. By default, DPI-SSL uses the Default SonicWall DPI-SSL CA certificate to re-sign traffic that has been inspected.

To download the selected certificate to the firewall, click the (download) link. The Opening filename dialog appears.



() | TIP: To view available certificates, click on the (Manage Certificates) link to display the System > Certificates page.

You have chosen to open:							
SonicWall_DPI-SSL_CA.cer							
which is: cer File							
from: https://10.3.2.5							
What should Firefox do with this file?							
Open with Browse							
Save File							
Do this automatically for files like this from now on.							

- Ensure the **Save File** radio button is selected. а
- b Click OK.

The file is downloaded.

5 Click Update.

Adding Trust to the Browser

For a re-signing certificate authority to successfully re-sign certificates, browsers have to trust the certificate authority. Such trust can be established by having the re-signing certificate imported into the browser's trusted CA list. Follow your browser's instructions for importing re-signing certificates.

Configuring Exclusions and Inclusions

By default, when DPI-SSL is enabled, it applies to all traffic on the appliance. You can customize to which traffic **DPI-SSL** inspection applies:

- Exclusion/Inclusion lists exclude/include specified objects and groups
- Common Name exclusions excludes specified host names .
- CFS Category-based Exclusion/Inclusion excludes or includes specified categories based on CFS ۰ categories

This customization allows individual exclusion/inclusion of alternate names for a domain that is part of a list of domains supported by the same server (certificate). In deployments that process a large amount of traffic, to reduce the CPU impact of DPI-SSL and to prevent the appliance from reaching the maximum number of concurrent DPI-SSL inspected connections, it can be useful to exclude trusted sources.

() NOTE: If DPI-SSL is enabled on the firewall when using Google Drive, Apple iTunes, or any other application with pinned certificates, the application may fail to connect to the server. To allow the application to connect, exclude the associated domains from DPI-SSL; for example, to allow Google Drive to work, exclude:

- .google.com
- .googleapis.com
- .gstatic.com

As Google uses one certificate for all its applications, excluding these domains allows Google applications to bypass DPI-SSL.

Alternatively, exclude the client machines from DPI-SSL.

Topics:

- Excluding/Including Objects/Groups
- Excluding/Including by Common Name
- Specifying CFS Category-based Exclusions/Inclusions
- Content Filtering
- App Rules

Excluding/Including Objects/Groups

To customize DPI-SSL client inspection:

- 1 Navigate to the **DPI-SSL > Client SSL** page.
- 2 Scroll down to the Inclusion/Exclusion section.

_	General	Certificates Obje	ects Common Name	CFS Category-b	ased Exclusion/Inclusion
	INCLUSION/EXC	CLUSION	Exclude		Include
		Address Object/Group	None	V	All
		Service Object/Group	None	¥	All
		User Object/Group	None	•	All
					Update Reset

3 From the Address Object/Group Exclude and Include drop-down menus, select an address object or group to exclude or include from DPI-SSL inspection. By default, Exclude is set to None and Include is set to All.

TIP: The Include drop-down menu can be used to fine tune the specified exclusion list. For example, by selecting the Remote-office-California address object in the Exclude drop-down menu and the Remote-office-Oakland address object in the Include drop-down menu.

- 4 From the Service Object/Group Exclude and Include drop-down menus, select an address object or group to exclude or include from DPI-SSL inspection. By default, Exclude is set to None and Include is set to All.
- 5 From the User Object/Group Exclude and Include drop-down menus, select an address object or group to exclude or include from DPI-SSL inspection. By default, Exclude is set to None and Include is set to All.

6 Click Accept.

Excluding/Including by Common Name

You can add trusted domain names to the exclusion list. Adding trusted domains to the Built-in exclusion database reduces the CPU effect of DPI-SSL and prevents he appliance from reaching the maximum number of concurrent DPI-SSL inspected connections.

Topics:

- Excluding/Including Common Names
- Deleting Custom Common Names
- Specifying CFS Category-based Exclusions/Inclusions

Excluding/Including Common Names

To exclude/include entities by common name:

1 Navigate to the **DPI-SSL > Client SSL | Common Name** page.

General	Certificates	Objects	Common Name	CFS Category-bas	ed Exclusion/Ir	clusion
			Exclude Skip CFS Category Skip authenticating Built-In Approved Built-In Rejected	-based Exclusion the server		
	ME EXCLUSIO	NS				
.gotomeeting.com{n	-e-c}					
.itunes-apple.com						0 🖯
facebook.com{n-e-c	}					0
.etsy.com						07
Add	Delete All				Update	Reset

- 2 You can control the display of the common names by selecting the following options:
 - Action options:
 - Exclude Displays only excluded common names.
 - Skip CFS Category-based Exclusion Displays only custom common names that have the override CFS category-based exclusion option selected.
 - (i) NOTE: Use the Skip CFS Category-based Exclusion option to exclude a particular domain from the global inclusion options, Always authenticate server for decrypted connections and Always authenticate server before applying exclusion policy.

- Skip authenticating the server Allow skipping all server authentication.
- Built-In Approval Approval automatically built-in.
- Built-In Rejected Rejection built-in.
- c Click OK.
- 3 To add a custom common name, click the **Add** button below the **Common Name Exclusions** table. The **Add Common Names** dialog displays.

Please add new common name entry:	
Always authenticate server before applying exclusion policy:	Use Global Setting
	Use Global Setting
	Disable
	Enable

- a Add one or more common names in the field. Separate multiple entries with commas or newline characters.
- b Click OK.

The **Common Name Exclusions/Inclusions** table is updated, with **Custom** in the **Built-in** column. If the **Always authenticate server before applying exclusion policy** option has been selected an **Information** icon displays next to **Custom** in the **Built-in** column.

- 4 You can search for common names by specifying a filter.
 - a In the Filter field, enter a name by specifying the name in this syntax: name: mycommonname.
 - b Click Filter.
- 5 Click OK.

Deleting Custom Common Names

To delete custom common names:

- 1 Navigate to the **DPI-SSL > Client SSL** page.
- 2 Scroll down to the Common Name Exclusions section.
- 3 Do one of the following:
 - Clicking a custom common name's **Delete** icon in the **Configure** column.
 - Clicking the **Delete All** checkbox to delete all custom common names. A confirmation message displays. Click **OK**.
- 4 Click Update.

Specifying CFS Category-based Exclusions/Inclusions

You can exclude/include entities by content filter categories.

To specify CFS category-based exclusions/inclusions:

1 Navigate to the **DPI-SSL > Client SSL | CFS Category-based Exclusions/Inclusions**.

CONTENT FILTER CATEGORY INCLUSIONS/EXCLUSIONS		General Certifi	icates Objects	Common Name	CFS Category-based Exclusion/Inclusion	
1. Violence/Hate/Racism 23. Government 45. Travel 2. Intimate Apparel/Swimsuit 24. Military 46. Vehicles 3. Nudism 25. Political/Advocacy Groups 47. Humor/Jokes 4. Pomography 26. Health 48. Multimedia 5. Weapons 27. Information Technology/Computers 49. Freeware/Software Downloads 6. Adult/Mature Content 28. Hacking/Proxy Avoidance Systems 50. Pay to Surf Sites 7. Cult/Occult 29. Search Engines and Portals 51. N/A 8. Drugs/Ilegal Drugs 30. E-Mail 52. N/A 9. Illegal Skills/Questionable Skills 31. Web Communications 53. Kid Friendly 10. Sex Education 32. Job Search 54. Advertisement 11. Gambling 33. News and Media 55. Web Hosting 12. Alcohol/Tobacco 34. Personals and Dating 56. Other 13. Chat/Instant Messaging (M) 35. Usenet News Groups 57. Internet Watch Foundation CAIC 14. Arts/Entertainment 38. Shopping 60. N/A 15. Abortoin/Advocacy Groups 38. Internet Auctions 61. N/A 16. Abortoin/Advocacy Groups 38. Internet Auctions 61. N/A 18. N/A 40. Real Estate	I	CONTENT FILTER CATEGORY INC	LUSIONS/EXCLUSIC	DNS ollowing categories following categories nection if Content Filter (tegories	Category is not available	
			23. Government 24. Military 25. Political/Advo 26. Health 27. Information T 28. Hacking/Prox 29. Search Engin 30. E-Mail 31. Web Commu 32. Job Search 33. News and Me 34. Personals and 35. Usenet News 36. Reference 37. Religion 38. Shopping 39. Internet Aucti 40. Real Estate 41. Society and L 42. N/A 43. Restaurants and 44. Sports/Recret	echnology/Computers ov Avoidance Systems es and Portals inications edia d Dating c Groups ions ifestyle and Dining ation	 45. Travel 46. Vehicles 47. Humor/Jokes 48. Multimedia 49. Freeware/Software Downloads 50. Pay to Surf Sites 51. N/A 52. N/A 53. Kid Friendly 54. Advertisement 55. Web Hosting 56. Other 57. Internet Watch Foundation CAIC 58. Social Networking 59. Malware 60. N/A 61. N/A 62. N/A 64. Not Rated 	

- 2 Select whether you want to include or exclude the selected categories by clicking either the **Include the following categories** (default) or **Exclude the following categories** radio button. By default, all categories are unselected.
- 3 Select the categories to be included/excluded. To select all categories, click **Select all Categories**.
- 4 Optionally, repeat Step 2 and Step 3 to create the opposite list.
- 5 Optionally, to exclude a connection if the content filter category information for a domain is not available to DPI-SSL, select Exclude connection if Content Filter Category is not available. This option is not selected by default.

In most cases, category information for a HTTPS domain is available locally in the firewall cache. When the category information is not locally available, DPI-SSL obtains the category information from the cloud without blocking the client or server communication. In rare cases, the category information is not available for DPI-SSL to make a decision. By default, such sites are inspected in DPI-SSL.

6 Click Update.

Client DPI-SSL Examples

Topics:

- Content Filtering
- App Rules

Content Filtering

To perform SonicWall Content Filtering on HTTPS and SSL-based traffic using DPI-SSL:

- 1 Navigate to the **Security Services > Content Filter** page.
- 1 Scroll down to the **Global Settings** section.
- 2 Select Enable Content Filter Service.
- 3 Clear the Enable HTTPS Content Filtering checkbox.

(i) NOTE: HTTPS content filtering is IP and hostname based. While HTTP content filtering can perform redirects to enforce authentication or provide a block page, HTTPS-filtered pages are silently blocked.

GLOBAL SETTINGS	
Max URL Cache Entries	
	Note: Please enter a value within the supported range for the selected model(s). If unsure, click here for valid ranges.
	Enable Content Filtering Service 🕖
	Enable HTTPS Content Filtering (2)
	Block if CFS Server Is Unavailable (i)
Server Timeout	5 second(s) 🕖

- 4 Ensure SonicWall CFS is selected for the Content Filter Type from the drop-down menu.
- 5 Click **Update**.
- 6 Navigate to the **DPI-SSL > Client SSL** page.

7 Click General.

	General	Certificates	Objects	Common Name	CFS Category-based Exclusion/	Inclusion
GENERAL SETT	INGS					
			Enable SSL Clie	nt Inspection		
			ntrusion Prever	ition		
			Gateway Anti-V	/irus		
			Gateway Anti-S	pyware		
			Application Fire	wall		
			Content Filter			
			Always authent	icate server for decrypt	ed connections (i)	
			Allow Expired (CA (i)		
			Deployments w	herein the Firewall sees	s a single server IP for different server	domains, ex: Proxy setup 🥡
			Allow SSL with	out decryption (bypass)	when connection limit exceeded (i)	
			Audit new built	in exclusion domain na	ames prior to being added for exclusio	n ()
			Always authent	icate server before app	lying exclusion policy (i)	
						Update Reset

- 8 Select Enable SSL Inspection.
- 9 Select Content Filter.
- 10 Click Update.
- 11 For information about configuring the content filters, see Configuring Content Filtering Service.
- 12 Navigate to a blocked site using the HTTPS protocol to verify that it is properly blocked.

(i) NOTE: For content filtering over DPI-SSL, the first time HTTPS access is blocked results in a blank page being displayed. If the page is refreshed, the user sees the firewall block page.

App Rules

To filter by application firewall rules, you need to enable them on both the **Security | DPI-SSL > Client SSL** page and the **Firewall > Advanced Application Control** page.

- 1 Navigate to the **DPI-SSL > Client SSL** page.
- 2 Scroll down to the General Settings section.

	General	Certificates	Objects	Common Name	CFS Category-based Exclusion/Inclusion
GENERAL SETT	INGS				
-		Ena	ible SSL Clie	ent Inspection	
		Intr	usion Preve	ntion	
		Gat	eway Anti-\	/irus	
		Gat	eway Anti-S	Spyware	
		App	olication Fire	ewall	
		Cor	ntent Filter		
		Alv	vays authent	ticate server for decrypt	ted connections (i)
		All	ow Expired	ca 🕡	
		Dep	oloyments w	herein the Firewall see	is a single server IP for different server domains, ex: Proxy setup $\ensuremath{}$
		Allo	w SSL with	out decryption (bypass	s) when connection limit exceeded (i)
		_ Auc	dit new built	-in exclusion domain na	ames prior to being added for exclusion $\widehat{\it O}$
		Alv	ays authent	ticate server before app	olying exclusion policy 🕖
					Update Reset

- 3 Select Enable SSL Client Inspection.
- 4 Select Application Firewall.
- 5 Click Update.
- 6 Navigate to the App Rules Global Settings section of the Firewall > App Control Advanced page.

APP CONTROL GLOBAL SETTINGS	
Enable App Control	
Enable Logging For All Apps	
Enable Filename Logging	
Global Log Redundancy Filter Interval 60	
Configure Settings Update Signature Database Reset Settings & Policies	Update Reset

- 7 Select the Enable App Control.
- 8 Configure an HTTP Client policy to block Microsoft Internet Explorer browser with **block page** as an action for the policy. For how to configure an App Rule, see *SonicWall SonicOS Policies*.
- 9 Click Update.
- 10 Access any website using the HTTPS protocol with your web browser to verify it is blocked.

Configuring Server DPI-SSL Settings

2

GENERAL SETTINGS		
	Enable SSL Server Inspection Intrusion Prevention Gateway Anti-Virus Gateway Anti-Spyware Application Firewall	
INCLUSION/EXCLUSION	Exclude	Include
Address Object/Group	None 🔻	All
User Object/Group	None 🔻	All
		Update Reset

The Server DPI-SSL deployment scenario is typically used to inspect HTTPS traffic when remote clients connect over the WAN to access content located on the firewall's LAN. Server DPI-SSL allows you to configure pairings of an address object and certificate. When the appliance detects SSL connections to the address object, it presents the paired certificate and negotiates SSL with the connecting client.

Afterward, if the pairing defines the server to be cleartext, then a standard TCP connection is made to the server on the original (post NAT remapping) port. If the pairing is not defined to be cleartext, then an SSL connection to the server is negotiated. This allows for end-to-end encryption of the connection.

() NOTE: In this deployment scenario, the owner of the firewall owns the certificates and private keys of the origin content servers. You would have to import the server's original certificate onto the appliance and create an appropriate server IP address to server certificate mappings in the Server DPI-SSL UI.

Topics:

- Configuring General Server DPI-SSL Settings
- Configuring Exclusions and Inclusions

Configuring General Server DPI-SSL Settings

To enable Server DPI-SSL inspection:

1 Navigate to the **DPI-SSL > Server SSL | General** page.

	GENERAL SETTINGS
	Enable SSL Server Inspection
	Intrusion Prevention
	Gateway Anti-Virus
	Gateway Anti-Spyware
	Application Firewall
l	

- 2 Select the Enable SSL Server Inspection checkbox.
- 3 Select the services with which to perform inspection:
 - Intrusion Prevention
 - Gateway Anti-Virus
 - Gateway Anti-Spyware
 - Application Firewall
- 4 Click Update.

Configuring Exclusions and Inclusions

By default, the DPI-SSL applies to all traffic on the appliance when it is enabled. You can configure inclusion/exclusion lists to customize to which traffic DPI-SSL inspection applies. The **Inclusion/Exclusion** lists provide the ability to specify certain objects or groups. In deployments that process a large amount of traffic, to reduce the CPU impact of DPI-SSL and to prevent the appliance from reaching the maximum number of concurrent DPI-SSL inspected connections, it can be useful to exclude trusted sources.

To customize DPI-SSL server inspection:

1 Navigate to the **DPI-SSL > Server SSL** page and scroll down to the **Inclusion/Exclusion** section.

INCLUSION/EXCLUSION		
	Exclude	Include
Address Object/Group	None 🔻	All
User Object/Group	None 🔻	All
		Update Reset

- 2 From the Address Object/Group section Exclude and Include drop-down menus, select an address object or group to exclude or include from DPI-SSL inspection. By default, Exclude is set to None and Include is set to All.
 - TIP: The Include drop-down menu can be used to fine tune the specified exclusion list. For example, by selecting the Remote-office-California address object in the Exclude drop-down menu and the Remote-office-Oakland address object in the Include drop-down menu.

- 3 From the User Object/Group section Exclude and Include drop-down menus, select an address object or group to exclude or include from DPI-SSL inspection. By default, Exclude is set to None and Include is set to All.
- 4 Click Update.

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 MySonicWall
- 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

Legend



Global Management System DPI-SSL Administration Updated - November 2020 Software Version - 9.3 232-005138-00 RevB

Copyright © 2020 SonicWall Inc. All rights reserved.

The information in this document is provided in connection with SonicWall and/or its affiliates' products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, SONICWALL AND/OR ITS AFFILIATES ASSUME NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL SONICWALL AND/OR ITS AFFILIATES BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF SONICWALL AND/OR ITS AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SonicWall and/or its affiliates make no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. and/or its affiliates do not make any commitment to update the information contained in this document.

For more information, visit https://www.sonicwall.com/legal.

End User Product Agreement

To view the SonicWall End User Product Agreement, go to: https://www.sonicwall.com/en-us/legal/license-agreements.

Open Source Code

SonicWall 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 SonicWall Inc. Attn: Jennifer Anderson 1033 McCarthy Blvd

Milpitas, CA 95035