

Migration Guide

Cyberoam to Sophos Firewall

For Customers with Cyberoam Appliances Document Date: June 2016

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Change Log

Revision Date	Description
17 November, 2015	Added: "Dynamic DNS" section under <u>Changes in Individual Features</u>
26 November, 2015	Removed: Point related to Custom SSL port in SSL VPN section under <u>Changes</u> <u>in Individual Features</u> Added: Note in Step 1 under <u>Steps to Migrate</u> .
14 December, 2015	Updated: First point related to Rollback under <u>Points to Note before</u> <u>Migration</u> 5 th point related to AV Scanning of Web Servers under <u>Discontinued</u> <u>CR Features</u>
7 th April, 2016	Added: Wireless point under <u>Changes in Individual Features</u> Updated: List of supported Appliance under <u>Supported Cyberoam Appliances</u> DHCP/PPPoE point under <u>Changes in Individual Features</u>
21st April, 2016	Added: Point for identity-based firewall rules under <u>Transformation of</u> <u>Firewall Rules to Security Policies</u> . Updated: List of supported Appliance under <u>Supported Cyberoam Appliances</u>
30 th June, 2016	Added: Information for Internet Scheme Page under <u>Transformation of</u> <u>Firewall Rules to Security Policies</u> .

Supported Cyberoam Appliances

The following Cyberoam (CR) Appliances can be upgraded to Sophos Firewall (SF) firmware:

- Virtual Appliances: All Virtual Appliances
- iNG Series: CR25iNG and above (including wiNG models).
 - Appliances that **CANNOT** be upgraded: CR10iNG, CR10wiNG, CR15iNG/4P and CR15wiNG.
- Cyberoam i Series: CR200i and CR300i.
 - Appliances that **CANNOT** be upgraded: CR15i, CR15wi, CR25wi and CR35wi.
- Cyberoam ia Series: CR500ia and above.
 - Appliances that **CANNOT** be upgraded: CR25ia to CR100ia.

It is recommended for Cyberoam to have firmware version 10.6.3 MR4 or higher to upgrade to SF firmware.

- For Appliances running 10.6.2 MR1 and below, upgrade to SF firmware is a two-step process wherein they first upgrade to the latest release of 10.6.2 or 10.6.3 versions and then to the SF firmware.
- For Appliances running 10.6.3, upgrade to SF firmware is a two-step process wherein they first upgrade to the latest release of 10.6.3 version and then to the SF firmware.

Note:

- To upgrade, CR Appliance should be registered in Cyberoam Customer Portal.
- The upgrade is not available on the Virtual Trial Appliance (CRiV-TR).
- Only certain hardware revisions of 15iNG can migrate onto SFOS.

Points to Note before Migration

1. If your CR Appliance is migrated to SF-OS firmware on a Full Guard Trial License, seamless rollback to CyberoamOS is possible. All you have to do is reboot the appliance and select CyberoamOS to boot it. All previous configurations, reports and subscriptions (except WAF) will be restored once the device is rebooted.

Note:

- Any new configuration (including features exclusive to SF-OS) will be lost once you roll back.
- The downtime in this roll-back is similar to the time required for rebooting your system.
- Rollback will not be possible after your existing CR Licenses have migrated to SF-OS licenses.
- 2. Appliances upgraded to SF firmware can no longer be managed by CCC. You will need Sophos Firewall Manager (SFM) to manage the upgraded appliances.
- 3. Appliances upgraded to SF firmware can no longer be integrated with Cyberoam iView. You will need Sophos iView (Version 2) for reporting of migrated appliances.
- 4. Once your Appliance is upgraded to SF firmware, the Warranty will be valid till 5 years from original date of Appliance registration on condition that you have an active Support License.

- 5. Once migrated, your Appliance will NOT be applicable for the Cyberoam Trade-Up schemes. However, you can opt for Sophos Firewall Hardware Refresh programs when it is launched.
- 6. When migrated from Cyberoam version 10.6.3 MR4 to Sophos Firewall GA or MR1, the appliance boots up with factory reset configuration.

Also refer to the Known Issues – Cyberoam to Sophos Firewall Migration.

What is new in Sophos Firewall

- 1. Simplified Policy configuration with 2 policy types Business Application Rule, User/Network Rule.
- 2. New Control Center for instant insight and control.
- 3. ATP to protect your network from Advanced Threats.
- 4. Security Heartbeat connects firewall and endpoints for smarter security.
- 5. RED extends main office security to remote offices with zero configuration.
- 6. Stronger email protection with SPX encryption, and built-in DLP.

Steps to Migrate

You can migrate your Cyberoam appliance to Sophos Firewall by following the steps given below.

Step 1

Once the SF firmware is available, an alert is displayed on your dashboard. Click the link.

Alert Messages						
14:29 New Firmwa	are available. Refer Release Notes	for upgrade procedure. Click here	e to download the new	firmware.		
14:29 Sophos Fire	ewall OS is available now. Log on to	Cyberoam Customer Portal to de	ownload the firmware.			
	password for the user "admin" has			e the password. Click Here to char	e password.	
	password for the user "cyberoam" I					mor
4 maay me denaar	passion of the user cyberoan i	nas not seen enanged. The righty	recommente you to er	lange the passificita. <u>Gital (Tere</u> to	ange kasnoa.	mor
Appliance Information				С×	System Usage	C
Appliance Key		C20313093694-OTN1KJ			CPU usage for last two hours	
Model Number		CR200iNG			2 100.00	
Firmware Version		10.6.2 MR-1 [Check for Upgra	ades]		50.00	
Firmware Build		383				
IPS Signature Version		3.12.47				
Anti Virus Version		3.50,1,5.20			Minutes	
Webcat Signature Version		0.0.1.158			Memory usage for last two hours	
Application Signatures		4.12.47			1907.35MB	
					1430.51/MB	
				с×		
System Time		Sat 31 Oct 2015 14:29:40		С×	951.67M6	
System Time Up Time		1 day, 0 hour, 14 minutes		C×	953.07/M0 476.84M0	
System Time Up Time				C×	95.67/16 476.84/16 0.00/10 12.43 13:00 13:16 13:33 13:50 14:00 14:23	
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Recent Mall Viruses detected Time	User Protocol	1 day, 0 hour, 14 minutes 2 Domain No Virus Detected Recipient	Subject	C X Name C X Name	Gateway Status Gateway Name Gateway IP Address Status DHCP_PortB_GW III 10.196 235.554 Immutes	C
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System Time Up Time UP Connected Users Recent Web Viruses detected Time Recent Mail Viruses detected Time Recent Mailware Alerts Time Src/Dst Recent FTP Viruses detected	User Protocol Signature Name No M	1 day, 0 hour, 14 minutes		C X Name C X Name C X Signature ID C X	Statue Gateway Padress Status Gateway IP Address Status Cateway IP Address Status Subscriptions Web and Application Filter Expires On Thu 31 Dec 2015 Gateway And Virus Expires On Thu 31 Dec 2015 Gateway And Virus Expires On Thu 31 Dec 2015 Gateway And Virus Expires On Thu 31 Dec 2015 Gateway And Virus Expires On Thu 31 Dec 2015 Gateway And Virus Expires On Thu 31 Dec 2015	

Note:

The SF firmware will be available ONLY to Cyberoam Appliances in which all subscriptions are valid till 1st January, 2016 and after. If any or all of your subscriptions expire before 1st January, 2016, you may first renew them and then upgrade your Appliance. Refer to the following articles for more details:

- How do I view my Registration and Subscription details on Cyberoam?
- How do I renew Subscription of Modules?

Step 2

On clicking the link, you will be redirected to Cyberoam Customer Portal. Login to the Portal.

CUSTOMER LOGIN	Cyberoam
Email	- A SOPHOS Company
john.smith@cyberoam.com	You may be running a very old version o
(case-sensitive)	CyberoamOS (firmware) on your Cyberoan appliances. Upgrade to CyberoamOS 10.02 o
Password	above to be able to renew the securit subscriptions on these appliances!
•••••	Desister your Appliance
(case-sensitive)	Register your Appliance
Forgot your password? Sign In	
Get Appliance Upgrade URL	
Get Appliance Upgrade URL Join Cyberoam Online Communities	
	Cyberoam is now a part of Sophos

Step 3

Click **Upgrade** against the hardware or virtual appliance you want to upgrade.

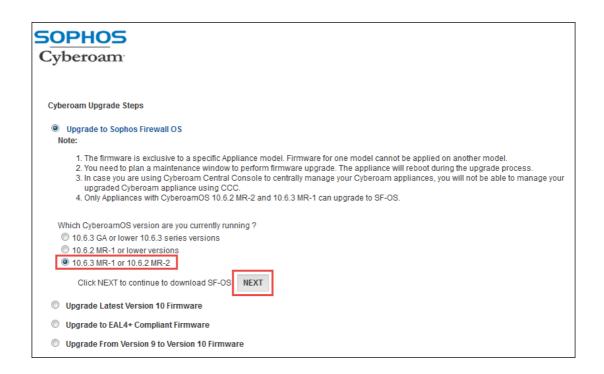
View Registrations	My Profile Suppo	rt P	rogram & Promotion	Cyberoam Learning	g 💊 Logout	
VIEW REGISTRATION	S					
Search Options Clear	Search					
Showing 1 to 2 of 2 records					📵 📵 Pag	ge 1 of 1 🛞 🛞 10 🔻
Appli	ance Key		Registration Date	Model	Subscription	Upgrade Firmware
C99998888777-XXX0X0	Update Supplier Informati	ion				
Additional Info:			2013-04-25	CR200iNG	Subscribe	Upgrade
u						
C00001111222-9YY99Y	Update Supplier Informati	ion				
Additional Info:		20	2015-06-01	CR35iNG	Subscribe	Upgrade
		۲.	2010-00-01	0100110	Cabachico	opgrade
		Tra	nsfer Appliance Register	Appliance		
			in a second second	(ppnanoo		
						e to the updated EULAs.

Step 4

Select **Upgrade to Sophos Firewall OS** and select the CyberoamOS firmware version your appliance is running on currently. Click **Next**.

You can upgrade to Sophos Firewall firmware only if your current CyberoamOS firmware is 10.6.2 MR2 or 10.6.3 MR1 onwards. If not, you will have to first upgrade your appliance to 10.6.2 MR2 or 10.6.3.MR1 and then to the Sophos Firewall firmware.

SOPHOS Cyberoam Securing You	
Cyberoann	
Cyberoam Upgrade Steps	
Upgrade to Sophos Firewall OS	
O Upgrade Latest Version 10 Firmware	
O Upgrade to EAL4+ Compliant Firmware	
Upgrade From Version 9 to Version 10 Firmware	
Please note: We've updated the End User License Agreements for Cyberoam, CCC. You can review the updated EULAs <u>here</u> . B agree to the updated EULAs.	y continuing to use the products, you
c	Copyright © 2015 Cyberoam Technologi



Note:

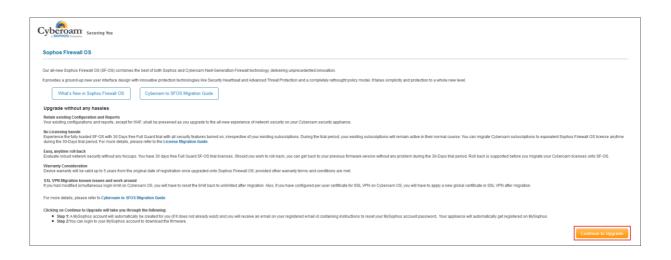
Appliances upgraded to Sophos Firewall firmware can no longer be managed by CCC. You will need Sophos Firewall Manager (SFM) to manage the upgraded appliances.

Step 5

Read the complete instructions and click **Continue to Upgrade**.

Note:

You can view the instructions for License Upgrade on the screen. Please note that if you select **Migrate License**, you will have to upgrade to SF-OS firmware within the next 30 days. The CyberoamOS will be automatically deactivated after 30 days.



Step 6

On Clicking Continue to Upgrade:

- A Sophos ID and MySophos account will automatically be created for you (if it does not already exist) and you will receive an email on your registered Email Address containing instructions to reset your Sophos account password. Your appliance will automatically get registered on MySophos.
- 2. You can login to your MySophos account to download the firmware.

SOPHOS	Sophos Congratulat	Securing You Firewall OS Beta kions! We have successfully register v Login to MySophes account to dowr		A MySophos account has a	also been created fo	r you if it didn't already exist.
[∽] My Account → My Profile	View Devices Below is a list of all devices that are r	egistered to you / your com	pany. Click on Downloa	d to download softwa	are for your devi	ice.
Endpoint / Server Protection Network Protection View Devices Register Device Firmware Updates	Search Options Model, Serial Number or Info Showing 1 to 3 of 3 entries	Search Clea	ar Advanced S	earch	< <	> >
Protection * Network Protection * View Devices > Register Device	Model, Serial Number or Info	Search Clear Registration Date	Advanced S		< < Actions	> > Show?
Protection Vetwork Protection Vetwork Protection Vetwork Devices Register Device Firmware Updates	Model, Serial Number or Info Showing 1 to 3 of 3 entries Serial # C99998888777-XXXXXX			10 🔻	1	1

Step 7

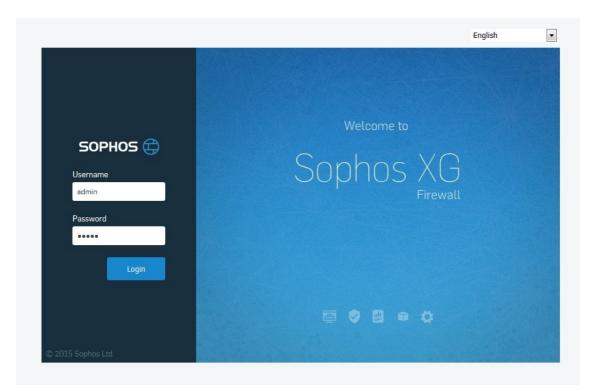
Once firmware is downloaded, follow instructions below:

- Login to Cyberoam Web Admin Console and go to System > Maintenance > Firmware.
- Click **Upload** icon and upload the downloaded .gpg file, that is, downloaded firmware.
- Click Upload and Boot.

Cyberoam		🔠 Dashboard 📖 Wizard 🥻 Rep	port 😇 Console Logout 🎯	
Cyberoam	Line and the second second second second			
	Backup & Restore Filmware Licensing Services Opdates			
SYSTEM	Tel series			
	Version		Active Manage	
Configuration Haintenance	10.04.5 build 007		ه ک ې	
• HA	10.6.2 MR-2		e 0	
Diagnostics				
	Firmware Upgrade/Downgrade	×		
	Upload File Choose File No file chosen			
	Upload firmware Upload & Boot Cancel			
P. VPN	Upload inmware Upload & Boot Cancel			
Ø IPS				
		SYSTEM		
		Administration	Version	
		Configuration	10.04.5 build 007	
		 Maintenance 	10.6.2 MR-2	
		 HA SNMP 	Aver mer	
		Certificate		
		Diagnostics		
ANTI SPAM		OBJECTS		
TRAFFIC DISCOVERY		. NETWORK	Firmware Upgrade/Downgrade x	
LOGS & REPORTS		1 DENTIFY		
Constant Constant		FREWALL	Upload File Choose File SFOS_15.01.01.SF210.gpg	
Status :			Upload firmware Upload & goot Cancel	
		IL VPN		
		🔮 IPS		
		Y WEB FILTER		
		R APPLICATION FILTER		
		WAF:		

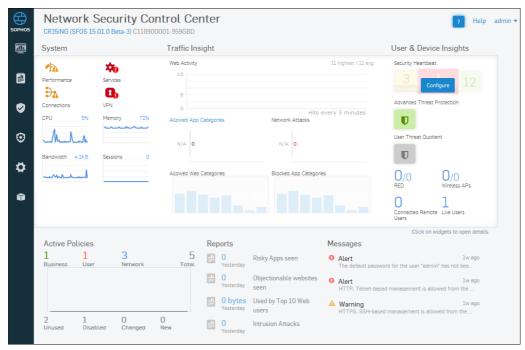
Step 8

Once the device boots up, login using your administrator credentials.



Login to Sophos Firewall

After upgrade, your CR Hardware Appliance's Model number and Serial Key will remain the same. Virtual Appliances will be renamed to their corresponding SF Models.



Navigation in Sophos Firewall

The navigation bar on the Admin Console consists of Menus, sub-menus and tabs. The menu contains the following modules:

Network Security Control Center: This acts as a dashboard to provide overall information about the system health, traffic insights, user-related and connected device related insights, usage and status of active security policies, most useful reports and alert messages.

Reports: Reports provide organizations with visibility into their networks while meeting the requirements of regulatory compliance. This allows organizations not just to view information across hundreds of users, applications and protocols; it also helps them correlate the information, giving them a comprehensive view of network activity.

Policies: Policies are security rule-sets to implement control over users, applications or network objects in an organization. Using Policies, you can create blanket or specialized traffic transit rules based on the requirement. Policies provide centralized management for the entire set of device security policies.

Protection: Protection menu groups all related tabs under Wireless, Web, Application, Web Server and Email Protection sub-menus.

System: System menu contains sub-menus which enables overall administration of the SF device like Network, VPN, Diagnostics, Current Activity, etc.

Objects: Objects are the logical building blocks of various policies and rules. This menu facilitates creation of various hosts, policies like Traffic Shaping and Access Time, users, groups, assets like Access Points and Web Servers.

License Migration

You can migrate Licenses from CyberoamOS to Sophos Firewall OS (SFOS) from:

- Customer Portal
- System > Administration> Licensing at the time of migration

For details on migration of licenses, refer to the License Migration Guide.

Transformation from Firewall Rules to Security Policies

The Firewall Rules of Cyberoam will be known as Security Policies in SF. This is because these rules will no longer just perform firewall functions, but incorporate all policies required to implement on various types of traffic. In other words, each Security Policy would implement a defined organization/institution policy.

Migration to SF

Your firewall rules will be migrated to SF as per following guidelines:

- 1. WAF-related rules will NOT be migrated.
- 2. For rules related to LOCAL Zone:
 - a. If Action in source rule is marked 'Reject' or 'Drop', Action in migrated rule will be 'Drop'.
 - b. Log Firewall Traffic parameter will be disabled for all migrated rules.
 - c. Identity will be disabled for all migrated rules.
 - d. Destination Host will always be "Any" in migrated rule. Rules with specific Destination Host will not be migrated.
 - e. All service-specific rules will be migrated as is. However, if the service specified in the Cyberoam rule is not present in SF, the rule will not be migrated.
- 3. For non-identity based rules:
 - a. Rules having Identity disabled will be migrated to SF as Network Policies.
 - b. Rules which have Email scanning enabled will be migrated to SF as Business Application Policies. Rules with SMTP and/or SMTPS scanning enabled will be migrated as policy with Email Server template, while rules with POP, POPS and/or IMAP will be migrated as policy with Email Client template.
 - c. For Rules with Email Scanning and HTTP/HTTPS/FTP scanning enabled, Two (2) Security Policies will be created: One (1) Business Application Policy with Email Client or Email Server template (as applicable) and One (1) Network Policy with corresponding Web Filter, Application Filter and HTTP/HTTPS/FTP scanning configuration (if any).
- 4. For Virtual Host based Rules:
 - a. Rules with Action as 'Drop' or 'Reject' will be migrated as respective User/Network rule containing external information of the source rule.

- Rules with Action as 'Accept' will be migrated to SF as Business Application Policies with Non-HTTP based template. The corresponding Web Filter, Application Filter, Multi-Link Management (MLM) and HTTP/HTTPS/FTP/IMAP/POP scanning configuration (if any) will NOT be carried over.
- c. Loopback rules will be migrated to SF as Business Application Policies with Non-HTTP based template. The corresponding Web Filter, Application Filter, Multi-Link Management (MLM) and HTTP/HTTPS/FTP/IMAP/POP scanning configuration (if any) will NOT be carried over.
- d. Reflexive Rules will be migrated as is to User/Network Rules. Rules with SMTP and/or SMTPS scanning enabled will be migrated as policy with Email Server template, while rules with POP, POPS and/or IMAP will be migrated as policy with Email Client template.
- e. Virtual host rules using #vhost as a service will be migrated as is.
- f. For Rules with Destination as 'Any' and no Virtual Host Rules, a corresponding Virtual Host rule will be created along with a Network Rule as per the source and destination zones.
- g. Rules which have Destination host as "Any" will be migrated to SF as Business Application Policies with Non-HTTP based template. Rules with SMTP and/or SMTPS scanning enabled will be migrated as policy with Email Server template, while rules with POP, POPS and/or IMAP will be migrated as policy with Email Client template. The corresponding Web Filter, Application Filter, Multi-Link Management (MLM) and HTTP/HTTPS/FTP scanning configuration (if any) will be carried over in a separate Network Policy.
- 5. For identity-based rules (applicable when migrated from CR 10.6.3 MR3 or below to SF GA, MR1):
 - Rules in which Web and Application Filter policies are defined, are migrated as is to User Policies.
 If Destination Zone in the rule is zone other than WAN, the Web and Application Filter values are not carried over to migrated rule.
 - b. Rules where specific users are specified, are migrated as User Policies. The user-specific Web and Application Filter policies are carried over as corresponding configuration in the rule. However, if the CR rule itself has Web and Application Filter parameters defined, the rule is migrated as is.
 - c. The group-specific Web and Application Filter policies are carried over as corresponding configuration in the rule. However, if the CR rule itself has Web and Application Filter parameters defined, the rule is migrated as is.
 - d. Rules where specific groups or "Any" is specified, are migrated as User Policies.
 - e. If the user-specific policies are different than those in the group, a separate User Policy is created for the user-specific policies as per method described in the point 5 b.
 - f. If Email scanning is enabled in in CR Rule, a corresponding Business Application policy with Email Client template is also created along with this rule.
- 6. For identity-based rules (applicable when migrated from CR 10.6.3 MR4 to SF MR2):
 - a. Rules in which User's Policy is applied for web/app filter, are migrated with 'Internet Scheme' applied to the migrated Policies. In the Internet Scheme* page in SF (Objects > Policies > Internet Scheme) all the users/groups from Cyberoam are listed along with the specific web and app filter policies that are applied to each.
 - b. User or Group based rules in which User's Policy is applied for web/app filter, are migrated with 'Internet Scheme' applied to the migrated Policies. In the Internet Scheme* page in SF (Objects > Policies > Internet Scheme) the users/groups affected by the rule are listed along with the specific web and app filter policies that are applied to each.
 - c. User or Group based rules in which app filter is set as User's Policy and web filter is set as 'CIPA', are migrated with its app filter set to 'Internet Scheme' and web filter set to 'CIPA'.

- d. User or Group based rules in which app filter is set as Custom Policy and web filter is set as User's Policy, are migrated with its app filter set to Custom Policy and web filter is set to Internet Scheme.
- e. If user or group is not present in the Internet Scheme* page, the Default web and app filter policies are applied on the users.

Internet Scheme Page

*The Internet Scheme page is displayed after migration from CR 10.6.3 MR4 to SF MR2. It displays the list of all users and groups affected by migrated firewall rules, listing out the corresponding web and app filter policies applied to them.

Example:

Cyberoam Firewall Rules in which User's Policy is applied for web/app filter are migrated with 'Internet Scheme' applied to the migrated Policies.

dd	10	Delete Clear All Filte	rs															
		Rule Name		Source 5	7 Destination	7	Service	7	Action	Identity	7	IM Scanning	Routing Through Gateway	Backup Gateway	WAF	Application Filter	Web Filter	Manag
	LAN	- WAN (Total 2)																
	2	#LAN WAN LiveUserTraffi	CON	Any Host	Any Host		Any Serv	ice	Accept	Any Live	User	•	Load Balance	None	•	User's Policy Applied	User's Policy Applied	2.5
	1	#LAN WAN AnyTraffic	ON	Any Host	Any Host		Any Serv	ice	Accept	-		•	Load Balance	None	•	Allow All	Allow All	2.5

Polic	CIES y Policies				Hel	o admin
IPv4	IPv6 Enable Filter				+ Add Firewa	all Rule
Rule		Source	Destination	What	Action	
4	#LAN_WAN_LiveUserTraffic [ID : in 3.29 MB, out 373.71 KB	2] LAN Any Host Any Live User	WAN Any Host	Any Service	Accept	Ø
	_					
ID 2	ở User's Policy Applied	Application Filter: Internet Scheme Web Fil Routing Through Gateway: Load Balance Apply "Internet Scheme" app filt coming from any network			✓ + ★	Ŵ

In the Internet Scheme* page in SF (Objects > Policies > Internet Scheme) all the users/groups from Cyberoam are listed along with the specific web and app filter policies that are applied to each.

nternet Scheme Dijects > Policies > Internet Scheme			Help
Default Internet Scheme			
Web Filter *	Deny All		
Application Control *	Deny All		
Internet Scheme			
Users/Groups	Web Filter	Application Control	Add Dele Manag
Clientless Open Group	Allow All	Allow All	
TG1	Allow All	Allow All	- 1
TG2	No Web Mail or Chat	Allow All	- 1
TG3	No Web Mail No Online Chat	Allow All	
TG5	No Explicit Content	Allow All	- 1
OU=apurv-ou,DC=sophos,DC=qa	No Ads or Explicit Content	Allow All	A 1
test-clientless1	Default Workplace Policy	Allow All	

Behavior Difference

Once migrated, difference of behavior between Cyberoam Firewall Rules and SF Security Policies:

- Administrator will not be able to configure Email Scanning, WAF & Virtual Host on network/user rules.
- Web and Application Filter Policies are no longer associated with individual users or groups. They will have to be applied using Security Policies.
- AV/AS scanning, web/application filter policy and MLM are not available in Non-HTTP (Virtual Host) Business Application Policies.
- Web / Application filter policies are not available in Email Client and Email Server Templates.
- Multi-Link Management is not available on Email Server Template.
- Destination Host "Any" will not cover all the virtual hosts.

Changes in Individual Features

Licensed Features

For features related to Web, Email and Network Protection, if the respective license is not subscribed, SF will allow you to configure the feature, but will not do the corresponding scanning and logging. For

example, if your Network Protection module is not subscribed, SF will allow you to create custom IPS signatures, policies, etc. but will not scan or log traffic.

Similarly, if any license expires, SF will stop scanning and logging of traffic related to that module without disrupting the network traffic.

However, for security reasons, this behavior does not hold true for Web Server Protection Module. You need a valid License of the module for SF to allow any traffic from your Web Server(s).

Wireless

If the Security Mode of any Wireless Network is set as WEP Open, on migration, the WiFi Key of that network(s) will be regenerated. This is applicable to Cyberoam firmware version 10.6.3 MR4 onwards.

If Wireless Protection in Cyberoam is disabled, on migration the Access Point and DHCP configuration is not carried over to SF.

Web Application Firewall (WAF)

The WAF configuration of the Cyberoam Appliance will not be migrated to the SF Firmware. You will have to re-configure WAF-related policies in the SF firmware.

Dynamic DNS

You can no longer use Cyberoam (<host name>. ddns.cyberoam.com) as your Dynamic DNS service provider. To continue using DDNS services, either register with and use a third-party DDNS service provider, or use Sophos (<host name>.myfirewall.co) as your provider.

General Authentication Client

Users will NOT be able to login to SFOS using Cyberoam General Authentication Client (GAC). They will have to download and install new instances called Client Authentication Agents from User Portal.

SSL VPN

The behavior changes are:

- SSL VPN users will NOT be able to connect to SFOS using Cyberoam SSL VPN Client. They will have to install new instances of SSL VPN Client for SF which can be obtained from the User Portal.
- The SSL VPN Portal (accessed by browsing to https://<Cyberoam WAN IP Address>:8443) will be a part of the SF User Portal. After migration, the User Portal can be accessed by browsing to https://< Cyberoam LAN IP Address>:8443.
- SSL VPN Bookmarks of Type IBM Server Terminal will be converted to TELNET Bookmark type after migration.
- If you have customized the Simultaneous Login SSL VPN Users, after migration, reset the limit to unlimited to prevent the "Maximum Login Limit" error displayed to users.
- If you have configured per user certificate for SSL VPN, after migration you will have to delete the user certificates from your Appliance. Then, the user(s) need to download and import a new SSL VPN Client bundle for SF from the User Portal.

Following SSL VPN related commands are discontinued:

console> set sslvpn proxy-sslv3

console> set sslvpn web-access

console> show sslvpn log

console> show sslvpn proxy-sslv3

console> show sslvpn web-access

Web and Application Filtering

The Web Categorization Database in SF will contain a different set of categories than Cyberoam.

If Web Protection License is not subscribed, you will be allowed to configure web and application settings, but the traffic will not be scanned or logged.

Further, as compared to Cyberoam, SF does not support:

- Selective upstream proxy (CLI Command: console> set service-param HTTPS ssl_upstream_tunnel)
- Google Hosted Domains (CLI Command: console> set service-param HTTPS google-hosted)
- ICAP (CLI Command: console> set icap edit)
- Proxy DoS Settings (CLI Command: set http_proxy dos)

Identity

For integration with an Active Directory (AD) Server, Integration Type 'Loose Integration' has been discontinued. By default, SF Device will integrate with an AD Server with Tight Integration. If you have configured your AD Server with Loose Integration, on migration it will be converted to Tight Integration.

Web and Application Filter policies cannot be assigned to users/groups directly in SF. If you want to apply any Web or Application Filter policies on a user/group, do it using Security Policies.

High Availability (HA)

Specification of a Passphrase will be compulsory for HA configuration in SF. Existing Cyberoam HA setups will be migrated to SF with a unique random passphrase. You can check and update the HA configuration from **System > System Services > HA** in SF firmware.

Certificates

Cyberoam Certificates will be carried over to SF firmware with the following changes:

- Default CA will be unchanged.
- Cyberoam Self signed CA will be renamed to SecurityApplianceSelfSIgnedCA, contents will remain same.
- Cyberoam_SSL_CA will be renamed to SecurityAppliance_SSL_CA, and will be regenerated with default values
- Appliance Certificate will remain same and will remain signed by SecurityApplianceSelfSIgnedCA.
- Behaviour of SSLVPN per user certificate will remain same as in Cyberoam.

DHCP/PPPoE

In SF firmware, DHCP and PPPoE can be configured on interfaces of all zones except of VPN. In Cyberoam, it was only available in WAN Zone.

If Two (2) Cyberoam Appliances in HA are migrated to SFOS, the DHCP Service in the Auxiliary Appliance may stop running. You need to remove the existing DHCP configuration to restart the DHCP service.

SNMP

You no longer require to create a firewall rule (Security Policy in SF) to allow SNMP traffic when SNMP is configured. The related Firewall Rule created in Cyberoam will NOT be migrated as is.

Discontinued CR Features

- 1. Google Hosted Domains Support
- 2. ICAP
- 3. Proxy DOS Settings
- 4. External URL Database support
- 5. Support of AV Scanning on Virtual Host without active WAF subscription*
- 6. Ability to create all service based rule for ACL(local) rule
- 7. Ability to create HTTP Based VH with WAF and without WAF
- 8. Support of FTP scanning for VH
- 9. Javascript emulation for URLs/Cookies
- 10. Auto-learning for adding exceptions
- 11. Instant Messaging (IM) support
- 12. Route based VPN Support (Available in 10.6.3)
- 13. Nested Group Support in NTLM (Available in 10.6.3)
- 14. Overriding Organizational Web Filter Policy Restrictions (Available in 10.6.3)

* Cyberoam allowed AV scanning of Web Servers (Virtual Hosts) if AV Module is subscribed and WAF Module is **NOT** subscribed. However, in SF, admin needs an active Web Server Protection subscription for AV scanning of Web Servers.

Renamed CR Features

- 1. My Account is renamed to User Portal. It is accessible by browsing to https://<SF IP Address>.
- 2. QoS is renamed to Traffic Shaping.
- 3. Network > Gateway is renamed to WAN Link Manager.
- 4. Parent Proxy is renamed to Upstream Proxy.
- 5. Appliance Access is renamed to Device Access.
- 6. 4-eye Authentication is renamed to Data Anonymization.
- 7. Data Transfer Policies is renamed to Network Traffic Quota.