

SonicOS

Logpoint Log Sources Configuration Guide

LogPoint

logpoint

logpoint

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General Description

With this application package, LogPoint can fully extract, analyze and correlate vulnerability details from SonicWall Firewall and at the same time combine results with observations from other systems. Administrators can use LogPoint to get alerts in real-time and provide long-term analytics.

Functional Description

The key analytical components of the integration are able to normalize data from specified sources and display statistics for SonicWall Firewall.

Supported Devices

This application package supports SonicWall Firewall version 6.x and above.

Configure SonicOS

1. Log on to the web interface, then select **Log | Automation** from navigation menu.
2. In the Syslog Servers section, click Add, then in the Name of IP Address field, enter the IP address of your LogPoint server.
3. In the Port field, enter 514 (the default port for Syslog), then click OK.
4. In the Syslog Format list, select Default, then click Apply.

Sample logs

```
<190>id=firewall sn=0017C5DA1968 time="2015-01-19 15:20:20 UTC"
fw=192.168.2.1 pri=6 c=1024 m=537 msg="Connection Closed" sess=None
n=8348256 src=192.168.2.2:39955:X0:CALIPPO-SINAS
dst=192.168.2.3:6881:X1:ip98-167-55-209.lv.lv.cox.net proto=tcp/6881
sent=52 rcvd=46 spkt=1 rpkt=1 cdur=200 <190>id=firewall
sn=0017C5DA1968 time="2015-01-19 14:32:57 UTC" fw=192.168.2.1 pri=6
c=1024 m=537 msg="Connection Closed" f="General HTTPS" sess=None
n=8328063 src=192.168.2.2:65239:X0:MONITOR-SELKS
dst=192.168.2.3:443:X1 proto=tcp/443 sent=838 rcvd=309 spkt=6 rpkt=4
cdur=2250 vpnpolicy="Sincerus_vCloud"
```

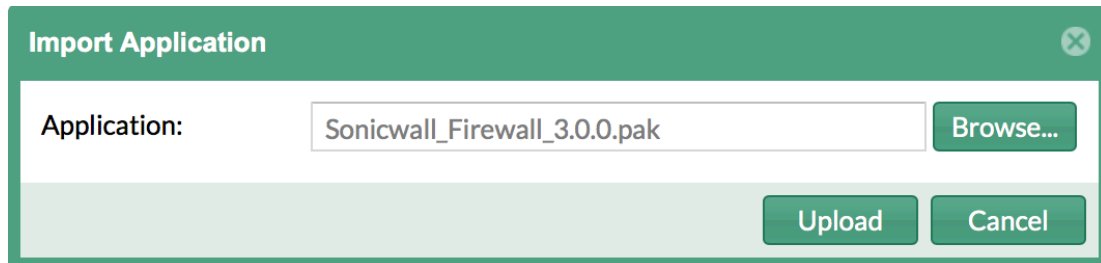
Configuration in LogPoint

Now login to the LogPoint installation and run through the following steps to finalize.

Importing Application

To import the application follow the following steps:

1. Go to Settings >> System >> Application.
2. Click Import.
3. Choose the relevant application and click upload.

A dialog box titled "Import Application" with a green header and a close button in the top right. It contains a text input field labeled "Application:" with the value "Sonicwall_Firewall_3.0.0.pak" and a "Browse..." button to its right. At the bottom right, there are two buttons: "Upload" and "Cancel".

Import Application

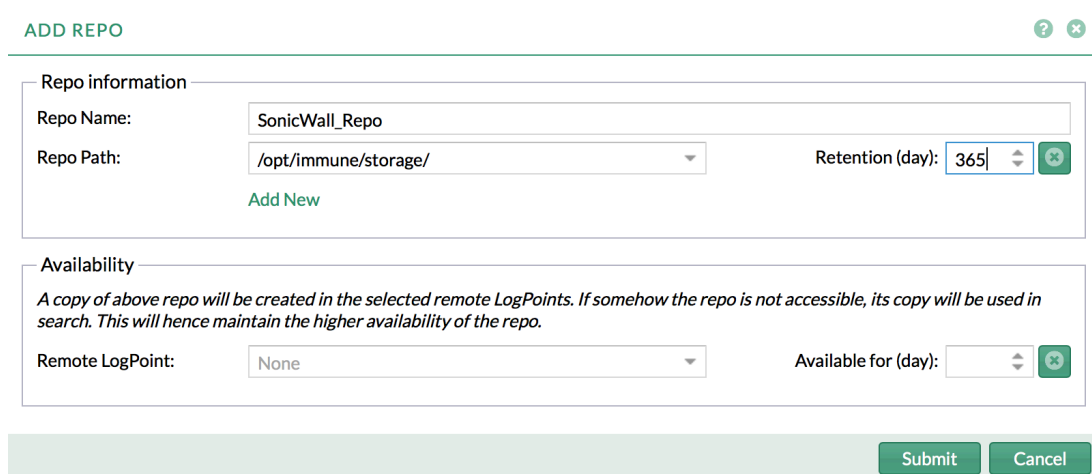
Application: Sonicwall_Firewall_3.0.0.pak Browse...

Upload Cancel

Adding Repos

To add repos, follow the following steps:

1. Go to Settings >> Configuration >> Repos.
2. Click **Add Repo**. A pop-up window appears for Repo Information and Availability.

A dialog box titled "ADD REPO" with a green header and help/close buttons in the top right. It has two sections: "Repo information" and "Availability". The "Repo information" section has fields for "Repo Name:" (SonicWall_Repo), "Repo Path:" (/opt/immune/storage/), and "Retention (day):" (365). There is an "Add New" link below the Repo Path field. The "Availability" section has a text description, a "Remote LogPoint:" dropdown (None), and an "Available for (day):" field. At the bottom right are "Submit" and "Cancel" buttons.

ADD REPO

Repo information

Repo Name: SonicWall_Repo

Repo Path: /opt/immune/storage/ Retention (day): 365

Add New

Availability

A copy of above repo will be created in the selected remote LogPoints. If somehow the repo is not accessible, its copy will be used in search. This will hence maintain the higher availability of the repo.

Remote LogPoint: None Available for (day):

Submit Cancel

3. In the Repo Information section, provide a **Repo Name**. (The length of the Repo Name should not exceed 29 characters). Select a **Repo Path** and the preferred **Retention (day)** period.
4. Click Add New to add multiple storage locations for your repo.
5. Under the Availability section, select a **Remote LogPoint** and set up a time period for **Available for (day)**.
6. Click **Submit**.

Once after a repo has been added, it will be populated in the Repos feed along with its repo name, disk space used and retention days like given below:

Repos				
<div> Add Export Import [Free space available in LogPoint: 104.83 GB] More 0 selected <input type="text" value="Search..."/> </div>				
<input type="checkbox"/>	S.N.	Repo Name	Disk Space Used	Retention (days)
<input type="checkbox"/>	1	SonicWall_Repo	0 MB	365

The number of days displayed under the **Retention (days)** column is the cumulative days of all the retention days associated with the different **Repo Path** for a repo.

Configure Normalization Policy

To configure the normalization policy, follow the following steps:

1. Go to Settings >> Configuration >> Normalization Policies.
2. Click **Add**.
3. Provide a **Policy Name**.
4. Drag and drop the available **Normalization Packages** and **Compiled Normalizer** to the right-side window pane. The selected normalization packages can now be reordered according to the requirement.

CREATE NORMALIZATION POLICY

Normalization Policy Information

Policy Name:

SonicWall

Compiled Normalizer:

Available

CEFCCompiledNormalizer
CyberlyticCompiledNormalizer
FirstClassCompiledNormalizer
FortiOSCompiledNormalizer
JSONCompiledNormalizer

Search

Selected

SonicWallCompiledNormalizer

Search

Normalization Packages:

Available

CloudTrail
HASO_WLC
LP_Aerohive
LP_Aruba WLAN Controller
LP_Cisco Catalyst 35XX series
LP_Cisco FWSM
LP_Cisco Meraki MR18
LP_Cisco NX-OS
LP_Cisco UCS

Search

Selected

LP_Sonicwall Firewall

Search

Note: Ordering of the Normalization Packages will reset the signatures order according to the packages. Either packages order or the individual signatures order can be altered at a time.

View Signatures

Submit

Cancel

logpoint

5. Click **View Signatures** to view signatures in the selected packages. You can deactivate signatures from your policy by deselecting them. You can deselect in three ways:

- Double click the selected signatures
- Drag and drop in the initial window pane.
- Press < button from the arrow buttons.

6. Click **Submit**.

Configure Enrichment Policy

1. Go to Settings >> Configuration >> Enrichment Policies.
2. Click **Add**.

CREATE ENRICHMENT POLICY

Enrichment basic

Policy Name: SonicWall

Description:

Specification

Enrichment Criteria

Enrichment rule will be applied only if all of the conditions are satisfied by log event

Key Presents Key

Add New Criterion

Enrichment Rule

Enrichment rule will be applied if all of the conditions below matches

Enrichment Source: Choose Source

Source Operation Category Event Key

Add New Rule

Remove Specification

Add New Specification

Submit Cancel

3. Under Enrichment basic section, provide **Policy Name** and **Description**.
4. Under Specification section, provide **Enrichment Criteria** and **Enrichment Rule**.
5. Provide the key value after selecting the Enrichment Criterion from the dropdown menu. The key entered must be present in the log event, and the value of the key in the log event must match the value or Regular Expression specified.

Note: Clicking Add New Criterion will generate a new dropdown menu for Enrichment Criteria options.

6. Select the Enrichment Source from the dropdown menu. The information to be filled will be followed as per the selected Enrichment Source.

- Choose a Source from the dropdown menu.
- The type of Operation will be set to **Equals** by default.
- Choose a Category from the dropdown menu.
- If you select Simple, provide the Event Key suitable with the Source.
- If you select Type Based, choose an Event Key Type from the dropdown menu. In this case, all the fields of the selected type are eligible to be taken into consideration.

The screenshot shows the 'Enrichment Rule' configuration window. At the top, it states 'Enrichment rule will be applied if all of the conditions below matches'. Below this, there is a dropdown for 'Enrichment Source' set to 'User_Account_Control'. Underneath, there are three columns: 'Source' with a dropdown set to 'description', 'Operation' with a dropdown set to 'Equals', and 'Category' with a dropdown set to 'Type Based'. To the right of these is 'Event Key Type' set to 'String'. Further right is a checkbox labeled 'Enable prefixing' which is checked, followed by a green circular icon with a plus sign. At the bottom left of the form is a green link that says 'Add New Rule'.

- Select the checkbox Enable prefixing, if you want the results to be prefixed with the event key. Unselect the checkbox if you want to obtain a particular result. In such case, LogPoint will perform the lexicographic operation, where the result will be presented in alphabetical order of the event key.

Note: Clicking Add New Rule will generate a new dropdown menu for Enrichment Rule options.

7. Click Submit.

Note: If you have a distributed LogPoint setup you cannot administer the Enrichment Policies of the remote LogPoints from the **Distributed LogPoint** dropdown menu on the **Header Bar** inside the Settings menu.

Warning: Using enriched field as an Enrichment Criteria for Type based enrichment is now allowed if the enrichment has been performed once previously. For example, if the field **source_address** is an enriched field, then the user is not allowed to use that field as an enrichment criteria value.

Configure Routing policy

Routing Policy allows the users to selectively determine what incoming data gets forwarded to a particular repository and what gets dropped. Routing is performed on the basis of "key-value-match" or "key-present" criteria.

Steps to configure Routing Policy:

1. Go to Settings >> Configuration >> Routing Policies.
2. Click **Add Policy**.

S.N.	Name	Number of Repositories	Number of Devices	Catch All	Actions
1	_LogPointAlerts	1	0	default	
2	default	0	1	default	
3	_logpoint	0	1	_logpoint	

ADD POLICY

Policy Information

Policy Name:

Catch All: Select Repo

Routing Criteria

Type: KeyPresent

Key:

Operation:
☒ Store raw message
☐ Discard raw message
☐ Discard entire event

Repository: Select Repo

Add

S.N.	Type	Key	Value	Repo	Operation	Actions
------	------	-----	-------	------	-----------	---------

Submit
Cancel

In the Add Policy panel, click ? to open the help section for routing policy. It lists all the points to be considered while creating a routing policy.

ADD POLICY
Back

Policy Name:

- The value can be alpha numeric characters with hyphen(-), underscore(_) and the value should not contain any spaces.
- The value should be unique.
- The policy name should not start with _logpoint.

Routing Policy:

- Routing Policies are used to forward particular log messages to a desired repository or to drop them.

Policy Information:

- Provide a name to the routing policy. Make sure that the policy name is same as the name of an existing repository.
- Catch All acts as the target repository if any of the routing criteria is not applied.

Routing Criteria:

- Select type for the routing criteria.
- KeyPresent will only take key parameter and this key will be used to filter out the messages.
- KeyPresentValueMatches will take both key and value as parameters where value is a regular expression and the combination of both key and value will be used to filter out the messages.
- Select repository to send the message if condition is satisfied.
- Operation determines either to forward the message to specified repo or drop the message, if the condition is satisfied.
- Click on add button to create routing criteria after filling up the credentials.
- The added criteria are listed in the table below the form section.
- The routing criteria listed in the table can be re-ordered and also can be removed.
- The messages are processed in order of routing criteria specified.

- In *Policy Information* section of the panel, provide **Policy Name** for the routing policy.
- In the same section, select a repository from the dropdown menu as **Catch All**. If any *Routing Criteria* does not match with the log messages, Catch All repository will act as the target repository.

5. In *Routing Criteria* section, select a **Type** for the routing criteria. The type may be either "KeyPresent" or "KeyPresentValueMatches".

- If KeyPresent type is selected, provide a **Key**. The routing criteria will be applied to the log messages containing the provided key.

ADD POLICY



Policy Information

Policy Name:
Catch All:

Routing Criteria

Type:
Key:
Operation: ☒ Store raw message ☐ Discard raw message ☐ Discard entire event
Repository:

Add

S.N.	Type	Key	Value	Repo	Operation	Actions

Submit

Cancel

- If KeyPresentValueMatches is selected, provide a **Key** and its **Value**. The routing criteria will be applied to the log messages confirming the provided Key-Value match.

Policy Information

Policy Name:
Catch All:

Routing Criteria

Type:
Key:
Value:
Operation: ☐ Store raw message ☒ Discard raw message ☐ Discard entire event
Repository:

Add

S.N.	Type	Key	Value	Repo	Operation	Actions
1	KeyPresent	source_port	Not Applicable	routing_repo	Store message	⬆ ⬇ 🗑

Submit

Cancel

Note: The Key for both KeyPresent and KeyPresentValueMatches types must be a normalized field name of the log message.

6. Select the target **Repository** from the dropdown menu for the *Routing Criteria*.
7. Choose an **Operation** to:
 - Store raw message: This will store both the raw message and the normalized data in the target repository.
 - Discard raw message: This will discard raw message and store the normalized data only.
 - Discard entire event: This will discard both raw message and the normalized data.
8. Click **Add**.

S.N.	Type	Key	Value	Repo	Operation	Actions
1	KeyPresent	source_port	Not Applicable	routing_repo	Store message	⬆ ⬇ 🗑
2	KeyPresentVal...	sig_id	12345	routing_repo	Discard raw message	⬆ ⬇ 🗑

All the added criteria are listed in the table below *Policy Information* section and prioritized according to their *S.N.* with serial number 1 being the highest priority criteria. Priority of routing criteria can be changed by clicking "up arrow" and "down arrow" in *Actions* column of the table.

9. Click **Submit** to save the routing policy, or **Cancel** to abort the process.

ADD POLICY

Policy Information

Policy Name: routing_repo

Catch All: default

Routing Criteria

Type: KeyPresentValueMatches

Key:

Value:

Operation:

☐ Store raw message
☒ Discard raw message
☐ Discard entire event

Repository: routing_repo

Add

S.N.	Type	Key	Value	Repo	Operation	Actions
1	KeyPresent	source_port	Not Applicable	routing_repo	Store message	^ v 🗑
2	KeyPresentVal...	sig_id	12345	routing_repo	Discard raw message	^ v 🗑
3	KeyPresentVal...	norm_id	23456	routing_repo	Discard raw message	^ v 🗑

Submit

Cancel

After submitting the policy, users will be redirected to the Routing Policy page where all the routing policies are listed in a table. The table also displays **Number of Repositories** that the policy is using and **Number of Devices** to which the policy is applied.

logpoint						
<div> DASHBOARD SEARCH REPORT INCIDENT SETTINGS </div> 05:11:25 admin						
Routing Policies						
<div> Add Policy More 0 selected Search... </div>						
	S.N.	Name	Number of Repositories	Number of Devices	Catch All	Actions
<input type="checkbox"/>	1	routing_repo	2	0	default	
<input type="checkbox"/>	2	_LogPointAlerts	1	0	default	
<input type="checkbox"/>	3	default	0	1	default	
<input type="checkbox"/>	4	_logpoint	0	1	_logpoint	
<div> Page 1 of 1 </div>						
<div> Displaying 1 - 4 of 4 Page size: 25 </div>						
<div> USER ACCOUNTS CONFIGURATION KNOWLEDGE BASE SYSTEM </div>					ROUTING POLICIES	

Now, if any of the routing criteria configured in the policy is matched by an incoming log message, it will be either forwarded to the target repository or dropped as per the policy.

For example, let's configure a routing policy as shown in the figure below:

ADD POLICY

Policy Information

Policy Name: routing_repo

Catch All: default

Routing Criteria

Type: KeyPresentValueMatches

Key:

Value:

Operation:

Store raw message

Discard raw message

Discard entire event

Repository: routing_repo

Add

S.N.	Type	Key	Value	Repo	Operation	Actions
1	KeyPresent	source_port	Not Applicable	routing_repo	Store message	
2	KeyPresentVal...	sig_id	12345	routing_repo	Discard raw message	
3	KeyPresentVal...	norm_id	23456	routing_repo	Discard raw message	

Submit

Cancel

So, the following log message which contains a field named **source_port** is forwarded to "routing_repo" repository as configured in the routing policy.

```
2017/01/12 08:13:33
Connection | Deny | Firewall
action=denied | col_ts=2017/01/12 08:13:33 | col_type=filesystem | collected_at=LogPoint | destination_address=192.168.4.255 | destination_port=138 |
device_ip=127.0.0.1 | device_name=localhost | log_ts=2017/01/12 08:13:33 | logpoint_name=LogPoint | norm_id=Kernel | object=set_firewall | process=kernel |
protocol=udp | repo_name=routing_repo | sig_id=19023 | source_address=192.168.4.165 | source_name=/var/log/syslog | source_port=138 |
Jan 12 08:13:29 LogPoint kernel: [ 8964.458358] set_firewall; denied udp; IN=eth0 OUT= MAC=ff:ff:ff:ff:00:0c:29:1f:3b:d5:08:00 SRC=192.168.4.165 DST=192.168.4.2
55 LEN=242 TOS=0x00 PREC=0x00 TTL=128 ID=19110 PROTO=UDP SPT=138 DPT=138 LEN=222
```

- It is not possible to specify routing specifications for the repo "_logpoint".
- "_LogPointAlerts" is the default routing policy bundled with LogPoint. For the log messages whose 'norm_id' field has 'LogPointAlerts' value, the policy routes those log messages to _LogPointAlerts repo. Otherwise, it forwards them to default repo.

Configure Processing Policy

A **Processing Policy** integrates Normalization Policy, Enrichment Policy, and Routing Policy into a single policy. The main purpose of the Processing Policy is to aid in the data enrichment process.

1. Go to Settings >> Configuration >> Processing Policies.
2. Click **Add**.
3. Provide **Policy Name**.
4. Select the required **Normalization Policy** from the dropdown menu.
5. Select the required **Enrichment Policy** from the dropdown menu. It is optional to add an **Enrichment Policy**.
6. Select the required **Routing Policy** from the dropdown menu.
7. Click **Submit**.

PROCESSING POLICY
?
✕

Processing Policy

Policy Name:

Normalization Policy:

Enrichment Policy:

Routing Policy:

Submit
Cancel

Configure Device

1. Start by clicking through “Settings” > “Devices”
2. Click on the “Add” button, to add a new device, and fill out the fields
 - a. “Name”: Name of the device
 - b. “IP address(es)”: IP address of the device
 - c. “Device Groups”: Device groups, that this device should be part of.

CREATE DEVICE
?
✕

Device Information

Name:

IP address(es):

Device Groups:

Log Collection Policy:

Distributed Collector:

Time Zone:

Risk Values

Confidentiality:

Integrity:

Availability:

Save
Cancel

