



# Cisco Secure Network Analytics

Proxy Log Configuration Guide 7.5.0



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# Introduction

## Overview

In order to gather user information from your network proxy servers for the Cisco Secure Network Analytics (formerly Stealthwatch) Proxy Log you need to configure the proxy servers logs so that the Flow Collector can receive the information and the Manager (formerly Stealthwatch Management Console) will display the information on the Flow Proxy Records page. This page provides URLs and application names of the traffic inside a network going through the proxy server.

This document describes the various procedures needed to configure the logs for different proxy servers. These servers are Blue Coat, McAfee, Cisco WSA, and Squid. This document assumes that you already have the proxy server running as part of your network. The procedures describe how to configure the proxy's logs so that the files necessary for the Flow Collector are given and the information is provided.

Complete the following steps to set up Secure Network Analytics Proxy Log:

1. Configure your proxy server:
  - a. [Blue Coat](#)
  - b. [McAfee](#)
  - c. [Cisco WSA](#)
  - d. [Squid](#)
2. [Configure the Flow Collector](#)
3. [Check the Flows](#)

## Important Configuration Guidelines

When configuring the logs for any of the proxies, you must make certain to adhere to these guidelines:

- The Flow Collector and the proxy must use the same NTP server or receive time from a common source for flow and proxy records to be matched.
- When setting the IP address for Flow Collector, select the Flow Collector that collects data from the exporters and end points that you want to investigate in the proxy logs.
- There is no specific size limit on syslog proxy messages imposed by Secure Network Analytics. However, we recommend that messages be kept shorter than the shortest Maximum Transmission Unit (MTU) along the path between the proxy

and Flow Collector, usually 1500. This will eliminate packet fragmentation and increase reliability.

- Proxy Log is not supported in High Availability (HA) mode.

# Configuring the Blue Coat Proxy Logs

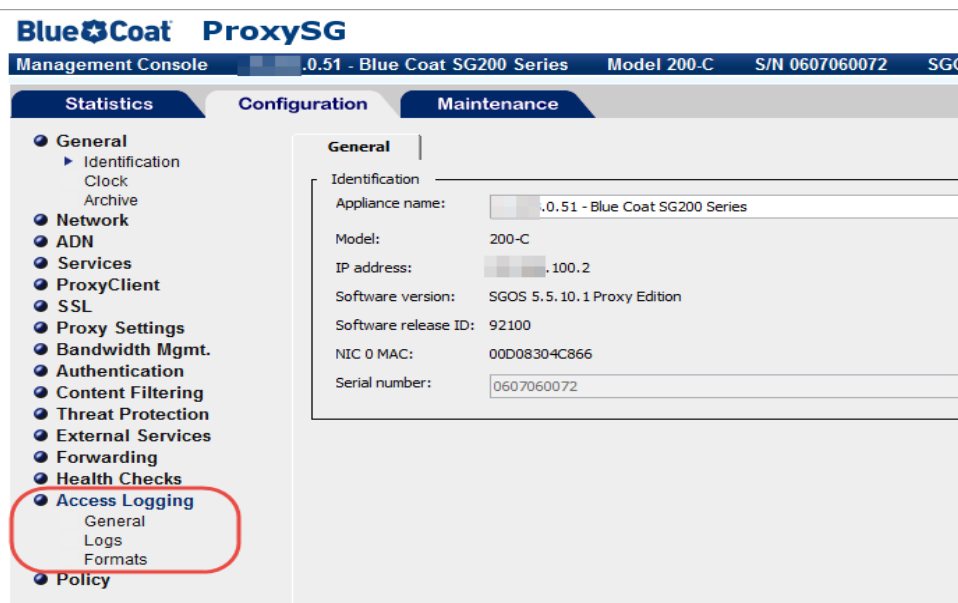
This chapter describes the procedure for configuring the Blue Coat proxy logs to deliver to Secure Network Analytics.

**i** The Blue Coat proxy version used for testing was SG V100, SGOS 6.5.5.7 SWG Edition.

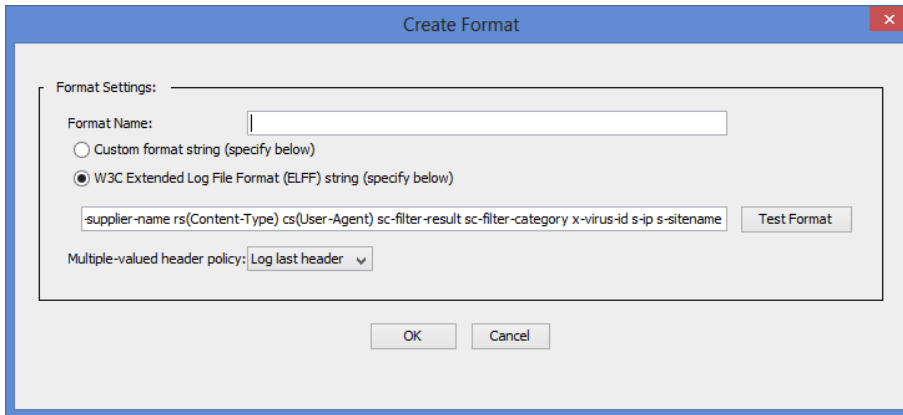
## Creating the Format

To create a new log format, complete the following steps:

1. In your browser, access your Blue Coat proxy server.
2. Click the **Configuration** tab.



3. In the main menu of the Management Console, click **Access Logging > Formats**.
4. Click **New** at the bottom of the page. The Create Format page opens.



5. In the Format Name field, type a name for the new format.
6. Select the W3C Extended Log File Format (ELFF) option.
7. In the format field, type the following string:

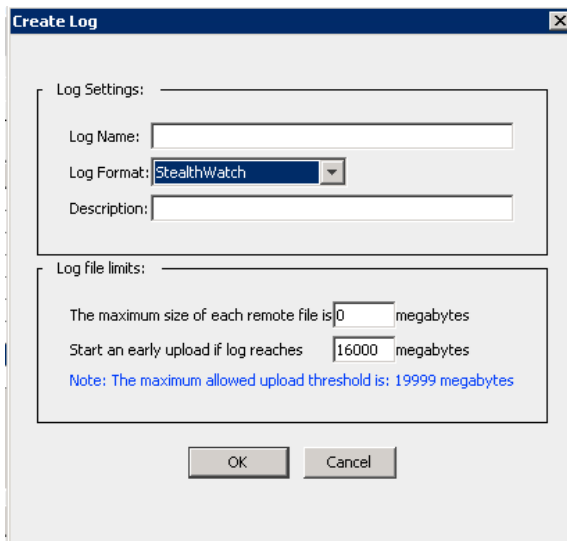
```
timestamp duration c-ip c-port r-ip r-port s-ip s-port cs-bytes
sc-bytes cs-user cs-host cs-uri
```

8. Click **OK**. Continue to the next section, [Create a New Log](#)

## Create a New Log

To create the logs, complete the following steps:

1. In the main menu, click **Access Logging > Logs**, and then select the new log format. The Log page opens.



2. Click the **General Settings** tab.

Logs | **General Settings** | Upload Client | Upload Schedule

Log: StealthWatch

Log Settings:

Log Format: StealthWatch

Description:

Log file limits:

The maximum size of each remote file is 0 megabytes

Start an early upload if log reaches 16000 megabytes

Note: The maximum allowed upload threshold is: 19999 megabytes

3. From the Log Format drop-down list, select the log you created in Step 1.
4. In the Description field, type a description for your new log.
5. Click the **Apply** button at the bottom of the page. Continue to the next section, **Configure the Upload Client**

## Configure the Upload Client

To configure the upload client, complete the following steps:

1. Click the **Upload Client** tab. The Upload Client page opens.

Logs | General Settings | **Upload Client** | Upload Schedule

Log: StealthWatch

Upload Client:

Client type: Custom Client Settings Test Upload

Transmission Parameters:

Encryption Certificate: <No Encryption>

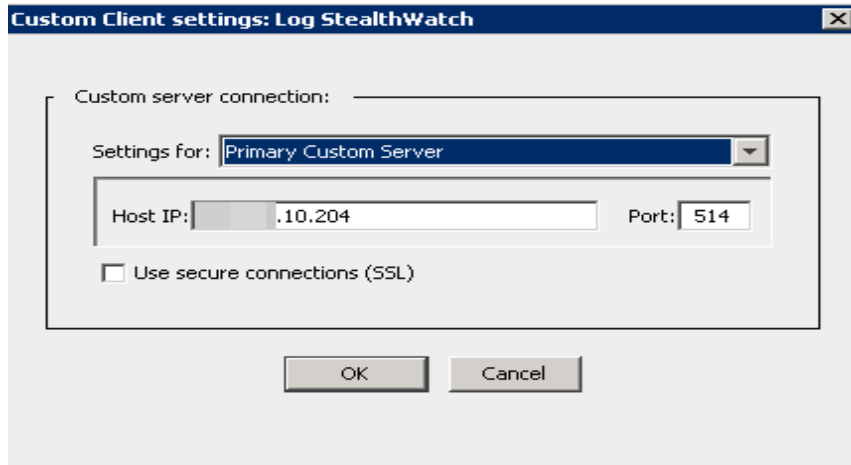
Signing Keyring: <No Signing>

Save the log file as:  gzip file  text file

Send partial buffer after: 5 seconds

Bandwidth Class: <None>

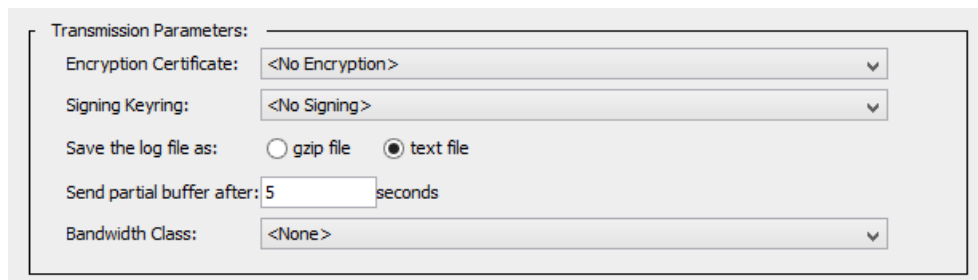
2. From the Client type drop-down list, select **Custom Client**.
3. Click the **Settings** button. The Custom Client settings page opens.



4. In the appropriate fields, type the IP address of the Flow Collector and listening port of the proxy parser.

**i** SSL is not supported at this time.

5. Click **OK**.



6. For the Transmission Parameters, complete these steps:
  - a. For the Encryption Certificate, select **No encryption**.
  - b. From the Signing Keyring drop-down list, select **no signing**.
  - c. From "Save the log file as" select the Text file option.
  - d. In the "Send partial buffer after" text box, type **5**.
  - e. Click the **Upload Schedule** tab, and select the continuously option for the Upload the access log.
  - f. In the Wait between connect attempts field, type **60**.
  - g. In the Time between keep-alive log packets field, type **5**.

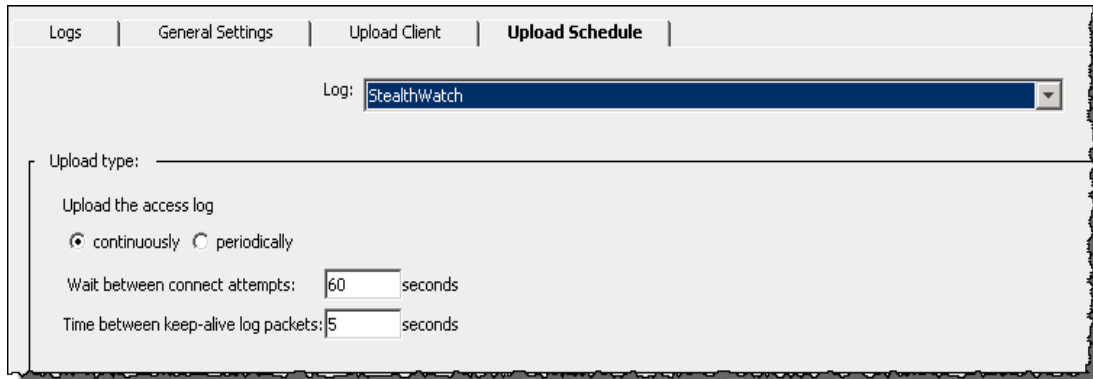


7. Click the **Apply** button at the bottom of the page. Continue to the next section, **Configuring the Upload Schedule**.

## Configuring the Upload Schedule

To configure the upload schedule, complete the following steps:

1. Click the **Upload Schedule** tab.



The screenshot shows the 'Upload Schedule' configuration page. At the top, there are tabs for 'Logs', 'General Settings', 'Upload Client', and 'Upload Schedule'. The 'Log' dropdown menu is set to 'StealthWatch'. Below this, the 'Upload type' section is expanded, showing 'Upload the access log' with two radio buttons: 'continuously' (selected) and 'periodically'. Below the radio buttons, there are two input fields: 'Wait between connect attempts:' with a value of '60' and 'seconds', and 'Time between keep-alive log packets:' with a value of '5' and 'seconds'.

2. For the "Upload the access log," select **continuously**.
3. Wait between correct attempts is **60** seconds.
4. Time between keep-alive log packet **5** seconds.
5. Click the **Apply** button at the bottom of the page.

This completes the configuration for the Blue Coat proxy logs for the Flow Collector.

## Notes

Further notes on configuration:

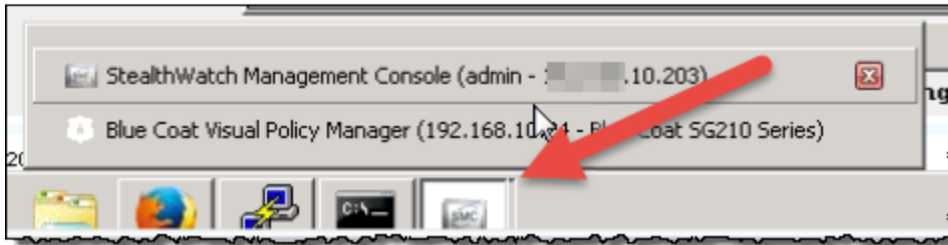
- The Flow Collector and Proxy must be on the same NTP server or receive time from a common source for flow and proxy records to be matched.
- Only one log output mechanism for the proxy is supported. If you are already exporting logs for some particular reason we will not be able to capture and parse proxy records.
- UDP is not supported.

## Configuration of the Visual Policy Manager

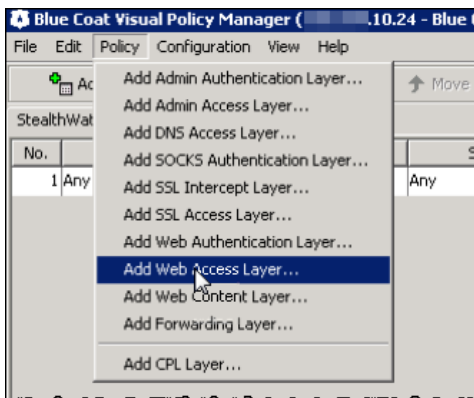
Configuration of the Visual Policy Manager enables you to check that the proxy log is being sent to the Flow Collector.



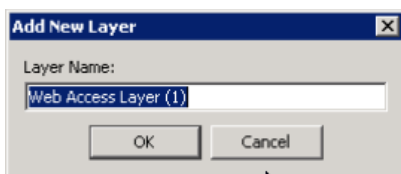
1. In the Configuration tab page in the main menu, click **Policy > Visual Policy Manager**. The Visual Policy Manager opens.



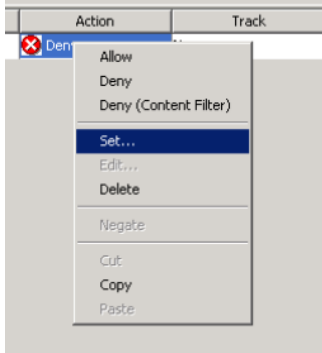
2. Click the Launch button at the bottom for your configured log. The Visual Policy Manager for the log window opens.



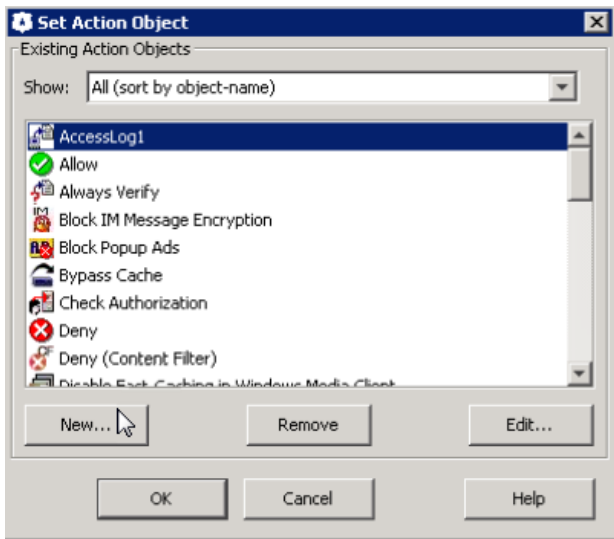
3. Click **Policy > Add Web Access Layer**. The Add New layer screen opens.



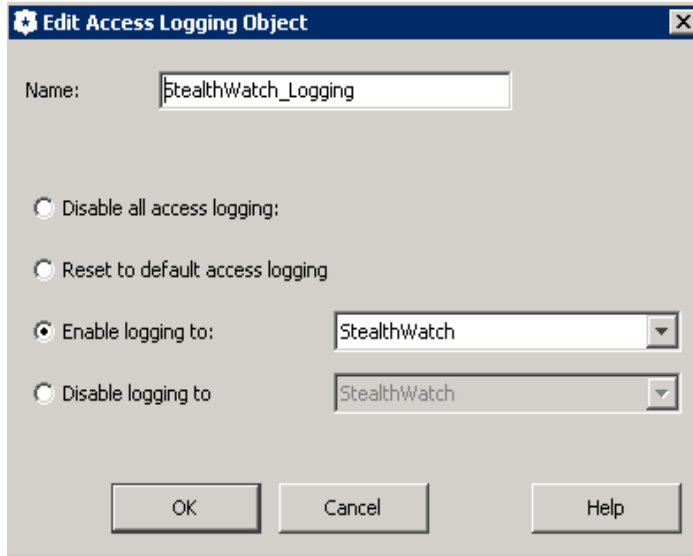
4. Type a name for the new layer, and then click **OK**.



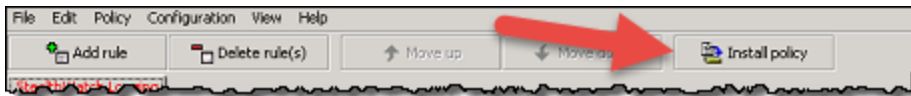
5. Right-click **Deny** in the Action column and then click **Set**. The Set Action Object dialog opens.



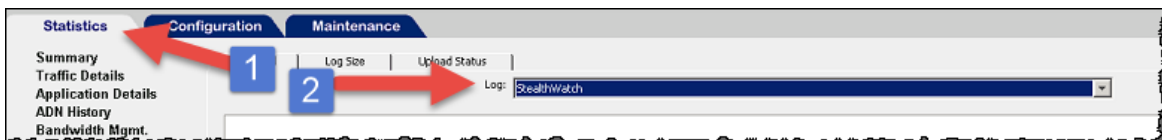
6. Click **New** and select **Modify Access Logging**. The Edit Access Logging Object dialog opens.



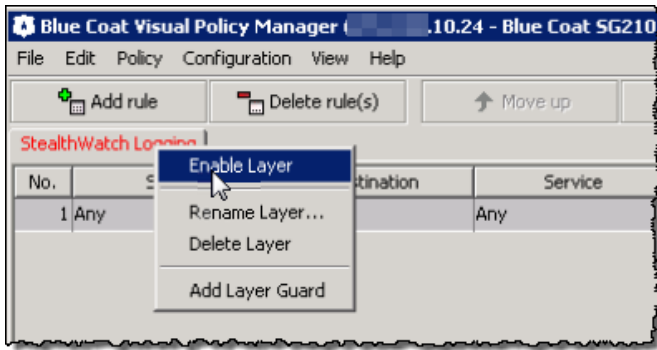
7. Click **Enable logging to**.
8. Type a name for your log and then select your log.
9. Click **OK**. The object is added.
10. In the Set Action Object dialog, click **OK**.



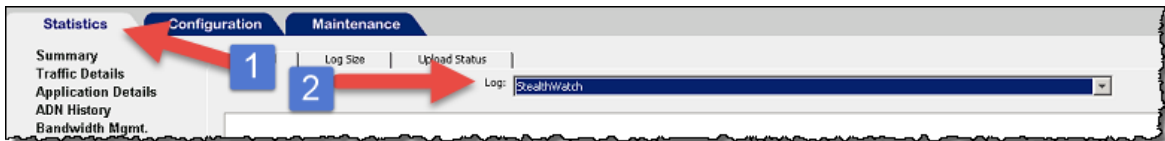
11. Click the **Install policy** button at the top right.
12. Click **No** and then **OK** for the following windows.



13. Launch the Blue Coat Visual Policy Manager again.



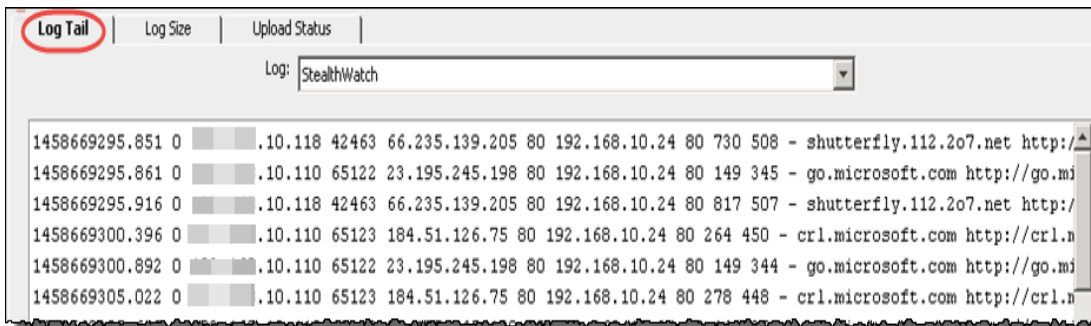
14. Right-click the logging tab and then select **Enable Layer**.
15. Click the Install Policy button. The Policy Installed opens.
16. Click **OK**.



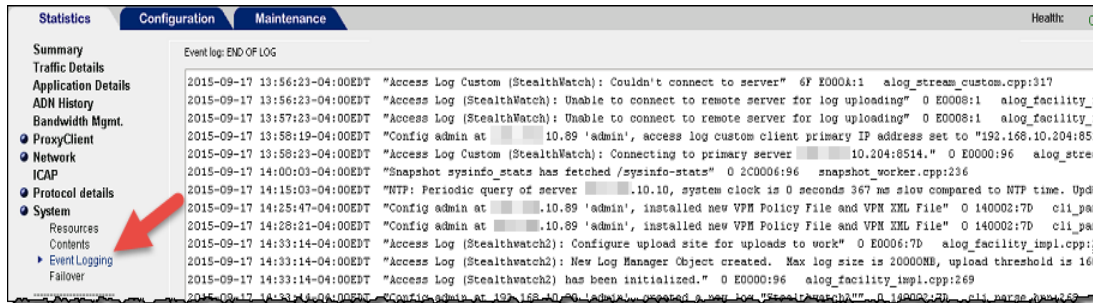
17. Click the **Statistics** tab, and in the log menu, select your log.



18. In the main menu, click **Access Logging**, and then click the Log Tail tab. The Log Tail window opens.



19. Click **Start Tail** button at the bottom of the page.
20. On the Statistics main menu, click **System > Event Logging**. This page will show if the log file is uploaded to the Flow Collector and the changes made. It shows whether the proxy is connected to the Flow Collector.



21. Continue to the [Configuring the Flow Collector](#) chapter to set up your Flow Collector to receive syslog information.

# Configuring the McAfee Proxy Logs

This chapter describes the procedure for configuring the McAfee proxy logs from the McAfee Web Gateway to deliver to Secure Network Analytics.



- Make sure that you have downloaded the XML configuration file for the McAfee proxy. Go to **Cisco Software Central** to download the readme and Proxy Log XML configuration files.
- Log in to your Cisco Smart Account at <https://software.cisco.com> or contact your administrator.
- The McAfee proxy version used for testing was 7.4.2.6.0 - 18721.

To set up the McAfee proxy log, complete the following steps:

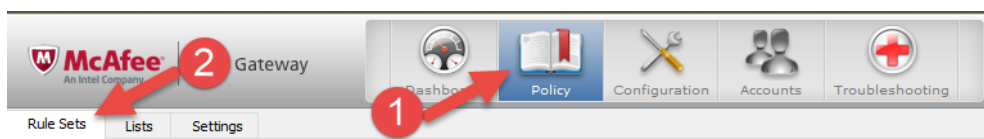
1. Download the XML file, FlowCollector\_[date]\_McAfee\_Log\_XML\_Config\_[v].xml, and then save it to your preferred location.



"Date" indicates the date of the XML file, and "v" indicates the version of the McAfee proxy version. Be sure to select the XML file with the same version number as your McAfee proxy.

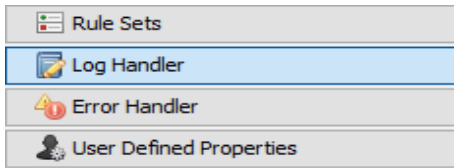
Follow these steps to acquire it:

- a. Go to <https://software.cisco.com>, **Cisco Software Central**.
  - b. In the **Download and manage > Download and Upgrade** section, select **Access** downloads.
  - c. Scroll down to the select a **Product** field.
  - d. Type **Secure Network Analytics** in the **Select a Product** field. Press **Enter**.
  - e. Select **Secure Network Analytics Virtual Flow Collector** or another Flow Collector.
  - f. Select **Secure Network Analytics System Software > Configuration Files**.
2. Log in to the McAfee proxy server.

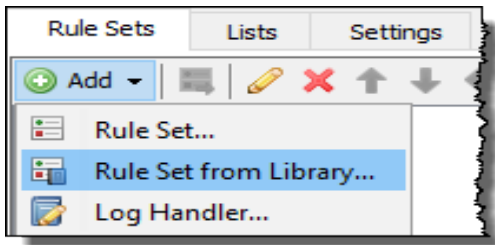




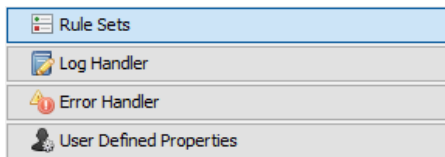
- Click the Policy icon, and then click the **Rule Sets** tab.



- Select **Log Handler**, and then select **Default**.



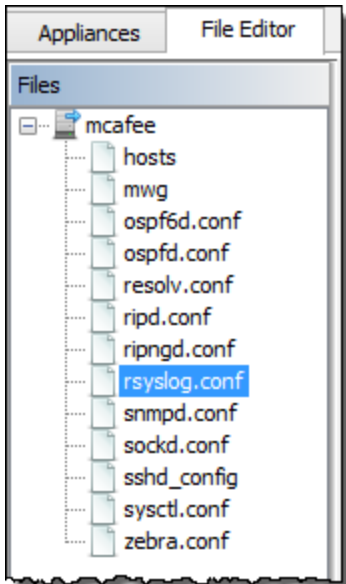
- Click **Add > Rule Set from the Library**.



- Click **Import from file**, and then select the XML file.
- Select **mcafeelancopelog** in the log handler that was just imported.

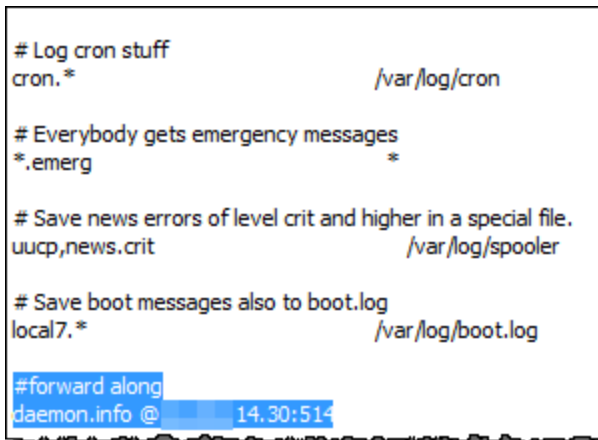
**i** Make sure the rule set and the rule “create access logline” and “send to syslog” is enabled.

- Click the Configuration icon at the top of the page.
- At the left of the page, click the **File Editor** tab, and then select the rsyslog.conf file.



10. At the bottom of the text box (beside the list of files), type the following text:

```
daemon.info @[FlowCollector IP Address:514]
```



Make sure to select the Flow Collector that collects data from the exporters and end points that you want to investigate in the proxy logs.

11. Comment out this line: `*.info;mail.none;authpriv.none;cron.none`.
12. Add this line:  
`*.info;daemon.!=info;mail.none;authpriv.none;cron.none - /var/log/messages`.
13. Click the **Save Changes** button at the top right of the page.

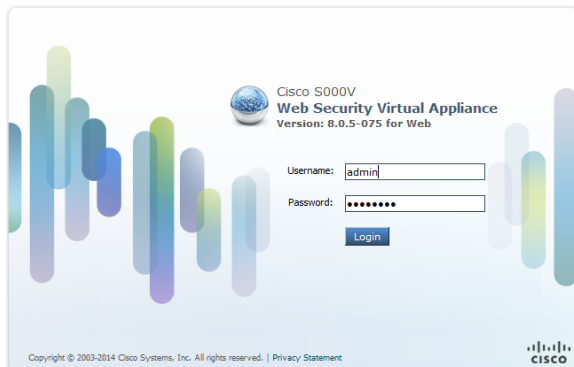
14. Continue to the [Configuring the Flow Collector](#) chapter to set up your Flow Collector to receive syslog information.

# Configuring the Cisco Web Security Appliance (WSA) Proxy Logs

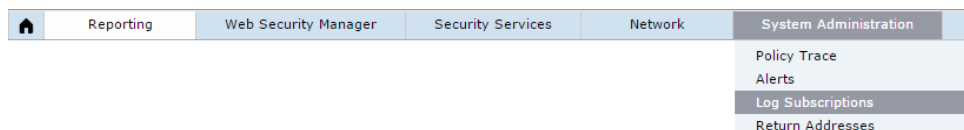
This chapter describes the procedure for configuring the Cisco proxy logs to deliver to Secure Network Analytics.

**i** Cisco WSA proxy does not support Virtual IPs for adding the proxy device.

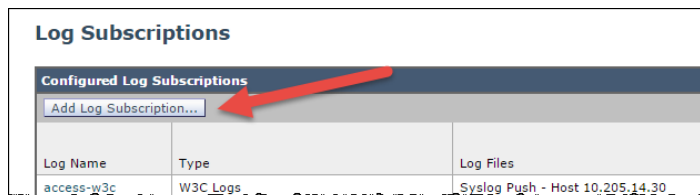
To set up the Cisco proxy log, complete the following steps:



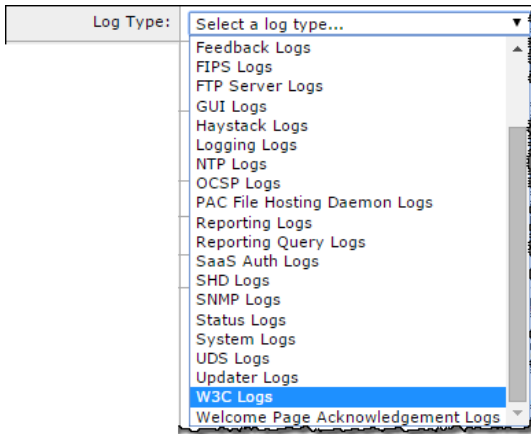
1. Log in to the Cisco proxy server.



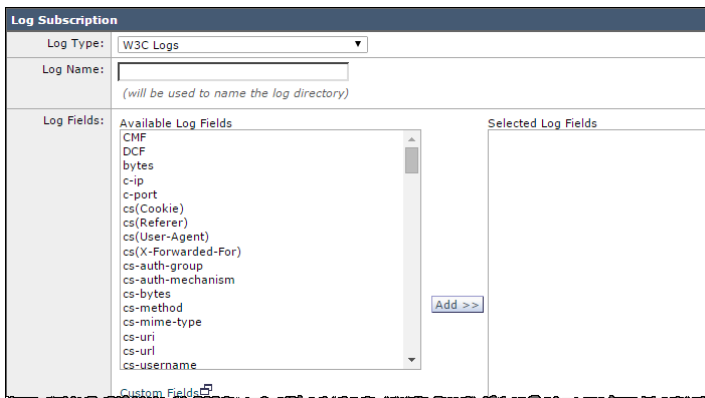
2. On the main menu, click **System Administration > Log Subscriptions**. The Log Subscriptions page opens.



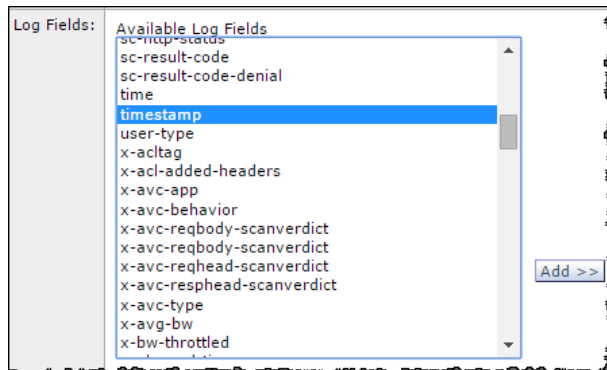
3. Click the **Add Log Subscriptions** button. The New Log Subscriptions page opens.



4. From the Log Type drop-down list, select W3C Logs. The available W3C Log fields appear.

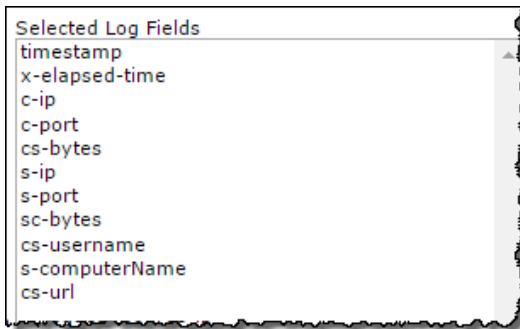


5. In the Log Name field, type a name for the log that you will use.
6. From the Available Log Fields list, select **Timestamp**, and then click **Add** to move it the Select Log Fields list.



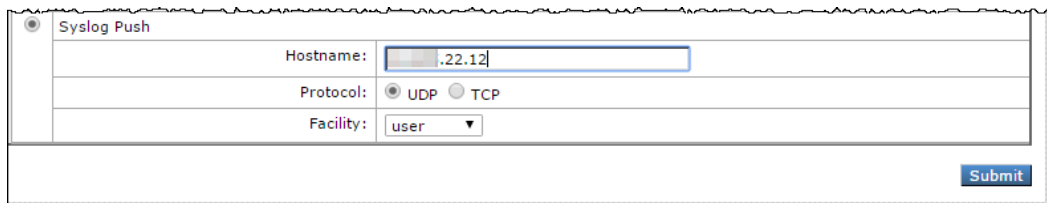
7. Repeat the previous step for the each of the following log fields in order:
  - a. timestamp
  - b. x-elapsed-time
  - c. c-ip
  - d. c-port
  - e. cs-bytes
  - f. s-ip
  - g. s-port
  - h. sc-bytes
  - i. cs-username
  - j. s-computerName
  - k. cs-url

The Selected Log Fields list should contain these fields as illustrated:



The Selected Log Fields list must be in the order above, with no other fields present.

8. Scroll to the bottom of the page, and then select the **Syslog Push** option.



Syslog Push

Hostname:

Protocol:  UDP  TCP

Facility:

9. In the Hostname field, type the Flow Collector IP address or its host name that the proxy sends logs to.



Make sure to select the Flow Collector that collects data from the exporters and end points that you want to investigate in the proxy logs.

10. Click **Submit**. The new log is added to the Log Subscription list.
11. Continue to the **Configuring the Flow Collector** chapter to set up your Flow Collector to receive syslog information.

# Configuring Squid Proxy Logs

This chapter describes the procedure for configuring the Squid proxy logs to deliver to Secure Network Analytics. To configure the logs requires using SSH to edit files on the proxy server.

To configure the Squid proxy logs, complete the following steps:

1. Log into a shell for the machine running Squid
2. Go to the directory containing `squid.conf` (typically `/etc/squid`) and open it in an editor.
3. Add the following lines to `squid.conf` to configure logging:

```
logformat access_format %ts%03tu %<tt %>a %>p %>st %<A %<st %<la  
%<lp %la %lp %un %ru  
  
access_log syslog:user.6 access_format
```

4. Restart squid using the following:

```
/etc/init.d/squid3 restart
```

5. Configure the syslog service on the Squid server to forward logs to the Flow Collector. This is dependent on the Linux distribution, but for `syslog-ng` you would add the following to `/etc/syslog-ng`:

```
# Audit Log Facility BEGIN  
  
filter bs_filter { filter(f_user) and level(info) };  
  
destination udp_proxy { udp("10.205.14.15" port(514)); };  
  
log {  
  
source(s_all);  
  
filter(bs_filter);  
  
destination(udp_proxy);  
  
};  
  
# Audit Log Facility END
```



Make sure to select the Flow Collector that collects data from the exporters and end points that you want to investigate in the proxy logs.



6. Then restart `syslog-ng` with `/etc/init.d/syslog-ng restart`.
7. Continue to the [Configuring the Flow Collector](#) to receive syslog information.

# Configuring the Flow Collector

After you have configured the proxy server, you need to configure the Flow Collector to accept the data.

To configure the Flow Collector to receive syslog information, complete the following steps:

1. Log in to your Manager.
2. Select **Configure > GLOBAL Central Management**.
3. Click the **⋯ (Ellipsis)** icon for your Flow Collector, then click **View Appliance Statistics**. The Flow Collector interface opens.
4. Click **Configuration > Proxy Ingest**. The Proxy Servers page opens.
5. Type the IP address of proxy server.
6. From the Proxy Type drop-down list, select your proxy server.

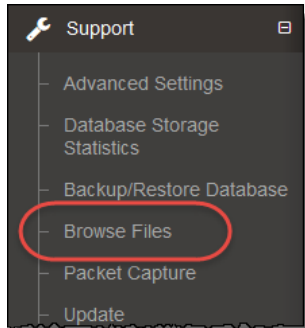


If your type of proxy server is not listed, you will not be able to use proxy logs at this time.

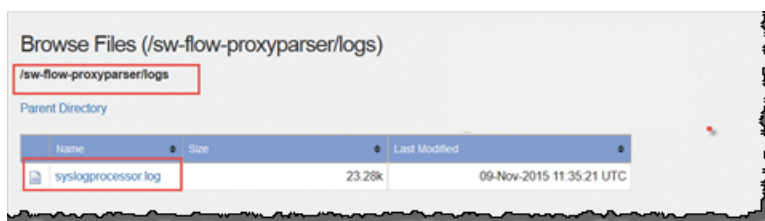
7. In the Proxy ID field, type the IP address of the proxy server.
8. In the Proxy Service Port field, type the port number of the proxy server.
9. If you want the proxy server to trigger alarms, clear the Exclude from Alarming check box.
10. Click **Add**.
11. Click **Apply**. The proxy server appears in the Proxy Ingest table at the top of the page.
12. Continue to the next chapter, [Checking the Flows](#).

# Checking the Flows

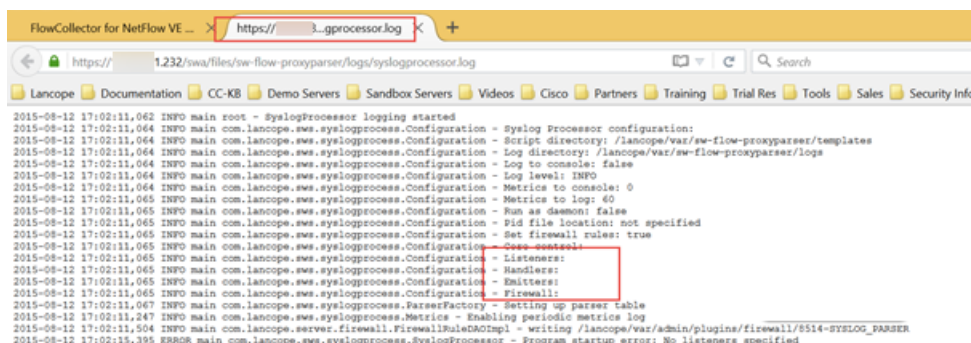
To check that you are receiving the flows, complete the following steps:



1. In the Flow Collector interface, click **Support > Browse Files** in the main menu. The Browse Files page opens.



2. Open the syslog file.



3. Check that the marked files are not blank. If there are then, there is an issue.
  - Listeners has the number of the proxies.
  - Handlers is only one that parses out the data.
  - Emitters take parsed data from the handler and convert it into a format the engine

is looking for.

- Firewall

```
2015-11-11 16:04:26,354 INFO main com.lancope.ses.syslogprocess.Configuration - Syslog Processor configuration:
2015-11-11 16:04:26,354 INFO main com.lancope.ses.syslogprocess.Configuration - Script directory: /lancope/var/ra-flow-prongprocessor/complete
2015-11-11 16:04:26,354 INFO main com.lancope.ses.syslogprocess.Configuration - Log directory: /lancope/var/ra-flow-prongprocessor/imp
2015-11-11 16:04:26,354 INFO main com.lancope.ses.syslogprocess.Configuration - Log to console: false
2015-11-11 16:04:26,354 INFO main com.lancope.ses.syslogprocess.Configuration - Log Level: INFO
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Metrics to console: 0
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Metrics to log: 0
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Run as daemon: false
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - PID file location: not specified
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Set firewall rules: true
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Core control:
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - Listeners:
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ syslog: port=9514
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ headers:
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ proxy: sourceIp=10.205.14.14 emitToProxyEngine pa
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ filters:
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ @SIP/proxyEngine:
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ @RECONNECT: iface=eth0 protocol=udp destport=9514 srcport=9
2015-11-11 16:04:26,355 INFO main com.lancope.ses.syslogprocess.Configuration - @ @SIP: port=9514 protocol=udp srcport=true Ip=10.205.14.14
2015-11-11 16:04:26,357 INFO main com.lancope.ses.syslogprocess.ParserFactory - Setting up parser table
2015-11-11 16:04:26,428 INFO main com.lancope.ses.syslogprocess.Metric - Enabling periodic metric log
2015-11-11 16:04:26,568 INFO main com.lancope.ses.syslogprocess.core.FirewallRuleManager - Writing /lancope/var/ra-flow-prongprocessor/firewall/9514-95100
2015-11-11 16:04:27,791 INFO main com.lancope.ses.syslogprocess.core.DispatcherCore - Core configuration started
2015-11-11 16:04:27,791 INFO main com.lancope.ses.syslogprocess.core.DispatcherCore - Core configuration single producer, blocking wait st
2015-11-11 16:04:27,881 INFO main com.lancope.ses.syslogprocess.SyslogProcessor - Starting metric log job
2015-11-11 16:04:27,886 INFO main com.lancope.ses.syslogprocess.Metric - Listeners: c@ rates: @ rate1: @ rate1: @ rate1: @
2015-11-11 16:04:27,886 INFO main com.lancope.ses.syslogprocess.core.DispatcherCore - Starting thread 11 for listener: syslog(9514)
2015-11-11 16:04:27,886 INFO main com.lancope.ses.syslogprocess.Metric - Listeners: c@ rates: @ rate1: @ rate1: @ rate1: @
2015-11-11 16:04:27,887 INFO main com.lancope.ses.syslogprocess.Metric - Listeners: c@ rates: @ rate1: @ rate1: @ rate1: @
2015-11-11 16:04:27,887 INFO main com.lancope.ses.syslogprocess.Metric - Listeners: c@ rates: @ rate1: @ rate1: @ rate1: @
2015-11-11 16:04:27,887 INFO main com.lancope.ses.syslogprocess.Metric - Listeners: c@ rates: @ rate1: @ rate1: @ rate1: @
```

The C is the count. These should go up when logs going through.

4. Check that the count is counting upwards to show that you are receiving data.

# Contacting Support

If you need technical support, please do one of the following:

- Contact your local Cisco Partner
- Contact Cisco Support
- To open a case by web: <http://www.cisco.com/c/en/us/support/index.html>
- To open a case by email: [tac@cisco.com](mailto:tac@cisco.com)
- For phone support: 1-800-553-2447 (U.S.)
- For worldwide support numbers:  
<https://www.cisco.com/c/en/us/support/web/tsd-cisco-worldwide-contacts.html>

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## Change History

<b>Document Version</b>	<b>Published Date</b>	<b>Description</b>
1_0	January 17, 2024	Initial Version.

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