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SmartConnector for Citrix NetScaler Syslog

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Contents

- SmartConnector for Citrix NetScaler Syslog 5
 - Product Overview 5
- Configuration 6
 - Citrix NetScaler Configuration 6
 - Configuring the Syslog SmartConnectors 7
 - The Syslog Daemon SmartConnector 7
 - The Syslog Pipe and File SmartConnectors 8
 - Configuring the Syslog Pipe or File SmartConnector 9
- Installing the SmartConnector 10
 - Installing Syslog 10
 - Preparing to Install Connector 10
 - Installing and Configuring the SmartConnector by Using the Wizard 11
- Device Event Mapping to ArcSight Fields 15
 - Citrix NetScaler Mappings to ArcSight Fields 15
- Send Documentation Feedback 17

SmartConnector for Citrix NetScaler Syslog

This guide provides information for installing the SmartConnector for Citrix NetScaler Syslog and configuring the device for event collection. Citrix NetScaler versions 10.0, 10.1, 10.5, and 11.0 are supported.

Product Overview

Citrix NetScaler is a web application delivery appliance available as a separate hardware network device or as a virtualized appliance. NetScaler optimizes application availability through L4-7 load balancing and traffic management, accelerates performance, increases security with an integrated application firewall, and lowers costs by increasing web server efficiency.

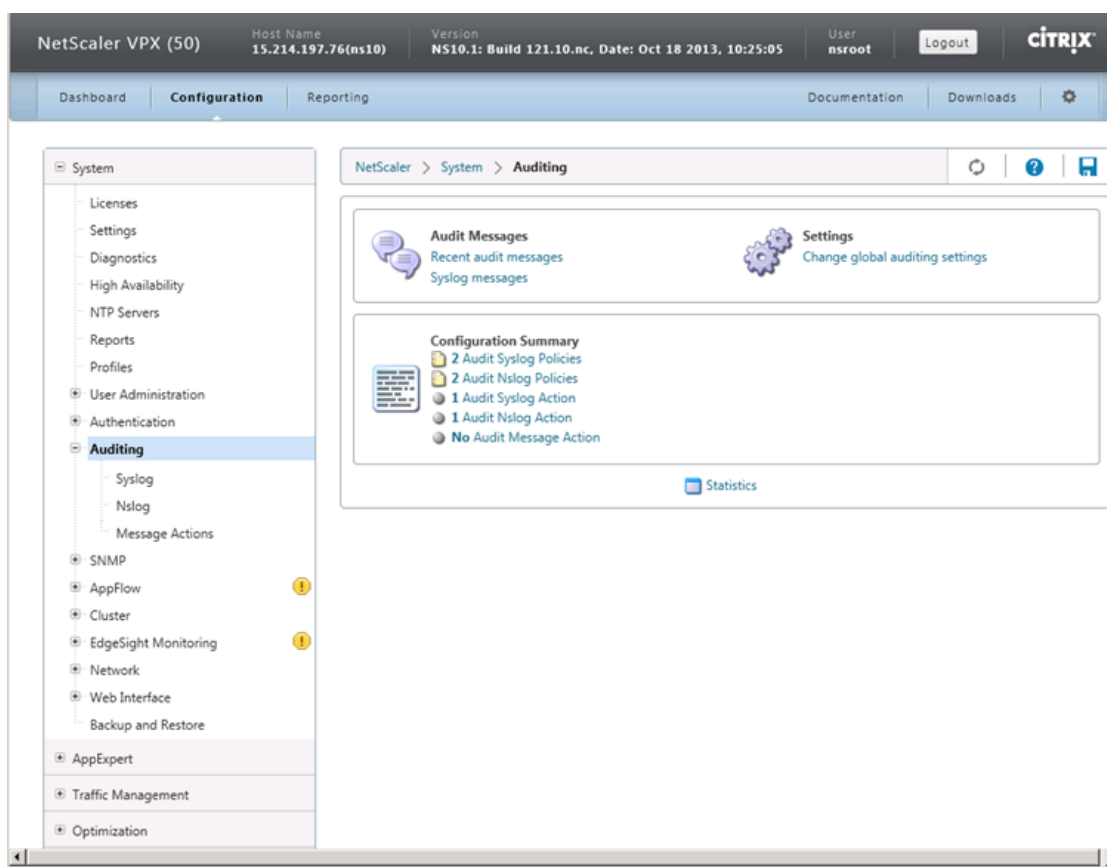
Configuration

Citrix NetScaler Configuration

You can customize logging of NetScaler for the needs of your site and direct these logs to an external syslog server. NetScaler uses the Audit Server Logging feature for logging the states and status information collected by different modules in the kernel and by user-level daemons. For more information about the Audit Server Logging feature, see the "Audit Server Logging" chapter in the *Citrix NetScaler Administration Guide*.

To configure NetScaler to collect syslog events:

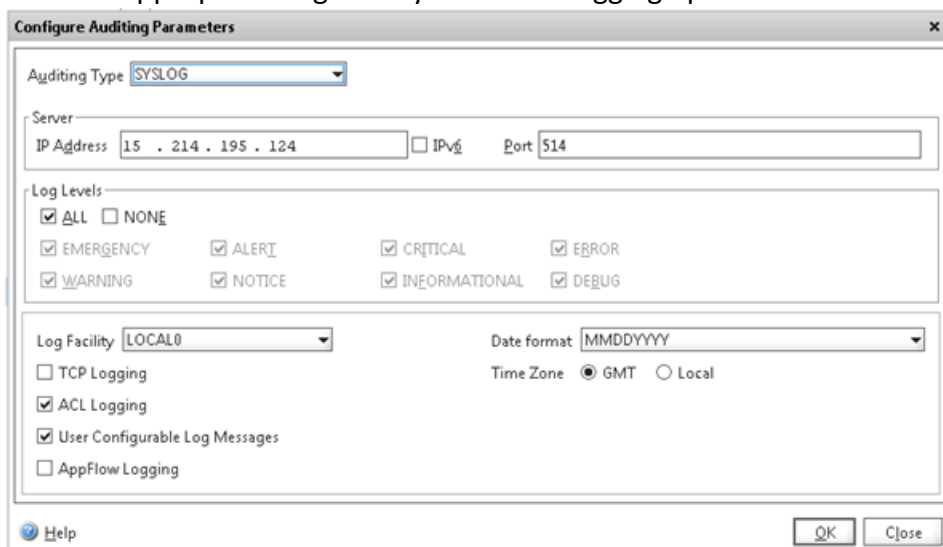
1. Login to Citrix NetScaler.
2. From the left pane, select **System** and **Auditing**. Click **Change global auditing settings**.




3. Select SYSLOG as the **Auditing Type** and add the IP address and port number of the syslog server under **Server**. Select ALL log levels or select specific log levels to be

included.

4. Select the appropriate Log Facility and other logging options as desired.



 **Note:** The date format must be MMDDYYYY to be parsed correctly.

5. Click **OK** to save your configuration and close the Configure Auditing Parameters window.
6. Click **Save** to save running configuration.

Configuring the Syslog SmartConnectors

The types of ArcSight Syslog SmartConnectors are:

- Syslog Daemon
- Syslog Pipe
- Syslog File

The Syslog Daemon SmartConnector

The Syslog Daemon SmartConnector is a syslogd-compatible daemon designed to work in operating systems that have no syslog daemon in their default configuration, such as Microsoft Windows. The SmartConnector for Syslog Daemon implements a UDP receiver on port 514 (configurable) by default that can be used to receive syslog events. Use of the TCP protocol or a different port can be configured manually.

If you are using SmartConnector for Syslog Daemon, add the following statement in the `rsyslog.conf` file to forward device events so that Syslog Daemon will start receiving events: `*.* @@(remote/local-host-IP):514`

Sample example: `local1.warning @@10.0.0.1:514`



Note: You can either use `*.*` to read all Syslog events or you can filter specific events by replacing regex with the specific event name. For example: `*.* @@(remote/local-host-IP):514` and `local1.warning @@10.0.0.1:514`



Note: Use `@@` to send events over a TCP connection and use `@` to send events over an UDP connection.

If you are running SmartConnector for Syslog Daemon on the same machine, you must provide the IP address of the local host. If you want to forward events to other machines, you must provide the IP address of the same.



Note: Messages longer than 1024 bytes may be split into multiple messages on syslog daemon; no such restriction exists on syslog file or pipe.

The Syslog Pipe and File SmartConnectors

When a syslog daemon is already in place and configured to receive syslog messages, an extra line in the syslog configuration file (`rsyslog.conf`) can be added to write the events to either a *file* or a system *pipe* and the ArcSight SmartConnector can be configured to read the events from it. **In this scenario, the ArcSight SmartConnector runs on the same machine as the syslog daemon. Therefore, you must do additional configurations for the ArcSight syslog file or syslog pipe SmartConnectors in the system where all Syslog Daemon SmartConnector configurations are done.**

The **Syslog Pipe** SmartConnector is designed to work with an existing syslog daemon. This SmartConnector is especially useful when storage is a factor. In this case, syslogd is configured to write to a named pipe, and the Syslog Pipe SmartConnector reads from it to receive events.

The **Syslog File** SmartConnector is similar to the Pipe SmartConnector; however, this SmartConnector monitors events written to a syslog file (such as `messages.log`) rather than to a system pipe.

Configuring the Syslog Pipe or File SmartConnector

This section provides information about how to set up your existing syslog infrastructure to send events to the ArcSight Syslog Pipe or File SmartConnector.

The standard UNIX implementation of a syslog daemon reads the configuration parameters from the **/etc/rsyslog.conf** file, which contains specific details about which events to write to files, write to pipes, or send to another host. First, create a pipe or a file; then modify the **/etc/rsyslog.conf** file to send events to it.

For syslog pipe:

1. Create a pipe by executing the following command: `mkfifo /var/tmp/syspipe`
2. Add any of the following line to your **/etc/rsyslog.conf** file based on the operating system:
 - `*.debug /var/tmp/syspipe`
 - `*.debug |/var/tmp/syspipe`
3. After modifying the file, restart Syslog Daemon either by executing the scripts **/etc/init.d/syslogd stop** and **/etc/init.d/syslogd start**, or by sending a `configuration restart` signal.
 - On RedHat Linux, execute: `service syslog restart`
 - On Solaris, execute: `kill -HUP `cat /var/run/syslog.pid``

This command forces Syslog Daemon to reload the configuration and start writing to the pipe you just created.

For syslog file:

1. Create a file or use the default for the file into which log messages are to be written.
2. After editing the **/etc/rsyslog.conf** file, ensure to restart the syslog daemon as described above.
3. When you follow the SmartConnector Installation Wizard, you will be prompted for the absolute path to the syslog file or pipe you created.

Installing the SmartConnector

The following sections provide instructions for installing and configuring your selected SmartConnector.

Installing Syslog

Install this SmartConnector (on the syslog server or servers identified in the Configuration section) using the SmartConnector Installation Wizard appropriate for your operating system. The wizard will guide you through the installation process. When prompted, select one of the following Syslog connectors (see Configure the Syslog SmartConnectors in this guide for more information):

- Syslog Daemon
- Syslog Pipe
- Syslog File

Because all Syslog SmartConnectors are sub-connectors of the main syslog SmartConnector, the name of the specific Syslog SmartConnector you are installing is not required during installation.

The Syslog Daemon connector listens on port 514 (configurable) for UDP syslog events by default. You can configure the port number or use the TCP protocol manually. The Syslog Pipe and Syslog File connectors read events from a system pipe and file, respectively. You can select the appropriate connector as per the Syslog infrastructure setup.

Preparing to Install Connector

Before you install any SmartConnectors, make sure that the Micro Focus ArcSight products with which the connectors will communicate have already been installed correctly (such as ArcSight ESM or ArcSight Logger).

For complete product information, refer to the *Administrator's Guide to ArcSight Platform* guide, available on [ArcSight Documentation](#).

If you are adding a connector to the ArcSight Management Center, see the *ArcSight Management Center Administrator's Guide* for instructions.

Start the installation procedure from step 3.

Before installing the SmartConnector, make sure that the following are available:

- Local access to the machine where the SmartConnector is to be installed
- Administrator passwords

Installing and Configuring the SmartConnector by Using the Wizard

The installation steps described in this section are specific to the Citrix NetScaler Syslog Connector. For detailed installation steps or for manual installation steps, see SmartConnector Installation and User Guide.

To install and configure the Citrix NetScaler Syslog Connector:

1. Start the installation wizard.
2. Follow the instructions in the wizard to install the core software.
3. Specify the relevant [Global Parameters](#), when prompted.
4. Select a Syslog Deamon or Syslog File connector from the **Type** drop-down, then click **Next**.

Because all syslog SmartConnectors are sub-connectors of the main syslog SmartConnector, a specific name is not required during installation.

5. Specify the following information depending on the type SmartConnector that you are installing:

For Syslog Deamon, specify the following parameters:

Syslog Daemon Parameters	Network port	The SmartConnector for Syslog Daemon listens for syslog events from this port.
	IP Address	The SmartConnector for Syslog Daemon listens for syslog events only from this IP address, apart from the default (ALL) to bind to all available IP addresses.

	Reading Events Real Time or Batch	Specify whether to read files in batch mode or real-time mode. In batch mode, all files are read from the beginning.
	Action Upon Reaching EOF	This option applies to Batch Mode only. Specify None , Rename , or Delete as the action to be performed to the file when the connector finishes reading and reaches end of file . For the real-time mode, retain the default value None .
	File Extension If Rename Action	This option applies to Batch Mode only. Specify the extension to be added to the file name if the action on reaching the end of file is specified as Rename . The default value is Processed , which adds a <code>.processed</code> extension.

For Syslog File Type, specify the following parameters:

Syslog Pipe Parameter	Pipe Absolute Path Name	Specify an absolute path to the pipe, or accept the default value: <code>/var/tmp/syspipe</code> .
Syslog File Parameters	File Absolute Path Name	<p>Specify the full path name for the file from which this connector will read events. The following are default values:</p> <ul style="list-style-type: none"> • Solaris: <code>\var\adm\messages</code> • Linux: <code>\var\log\messages</code> <p>You can use a wildcard pattern in the file name.</p> <p>In the real-time mode, rotation can occur only if the file is over-written or removed from the folder. The real-time processing mode assumes the following external rotation:</p> <ul style="list-style-type: none"> • Date format log rotation: The device creates a new log at a specified time in the with the naming convention <code>filename.timestamp.log</code>. The connector detects the new log and terminates the reader thread to the previous log after the processing is complete. The connector then creates a new reader thread to the new <code>filename.timestamp.log</code> and begins processing that file. To enable this log rotation, specify timestamp in <code>yyyy-MM-dd</code> date format. For example, <code>filename.yyyy-MM-dd.log</code> • Index log rotation: The device writes to indexed files in the following format: <code>filename.log.001</code>, <code>filename.log.002</code>, <code>filename.log.003</code>, and so on. At startup, the connector processes the log with highest index. When the device creates a log with a greater index, the connector terminates the reader thread to the previous log after processing completes, creates a thread to the new log, and begins processing that log. To enable this log rotation, use an index format, as shown in the following example: <code>filename'%d,1,99,true'.log</code>; Specifying <code>true</code> indicates that the index can be skipped. For example, if 5 appears before 4, processing proceeds with 5 and will not read 4. Use of <code>true</code> is optional.
	Reading Events Real Time or Batch	Specify whether to read files in batch mode or real-time mode. In batch mode, all files are read from the beginning.
	Action Upon Reaching EOF	This option applies to Batch Mode only. Specify None , Rename , or Delete as the action to be performed to the file when the connector finishes reading and reaches end of file. For the real-time mode, retain the default value None .
	File Extension If Rename Action	This option applies to Batch Mode only. Specify the extension to be added to the file name if the action on reaching the end of file is specified as Rename . The default value is Processed , which adds a <code>.processed</code> extension.

6. Select a [destination and configure parameters](#).
7. Specify a name for the connector.
8. If you have selected ArcSight Manager as the destination, the certificate import window for the ArcSight Manager is displayed. Select **Import the certificate to the connector from destination** and click **Next**. (If you select **Do not import the certificate to connector from destination**, the connector installation will end.) The certificate is imported and the **Add connector Summary** window is displayed.
9. Select whether you want to [run the connector as a service or in the standalone mode](#).
10. The connector cannot detect the network drive when running as a service on a Windows platform. This problem does not occur when the connector and IIS Server are installed on the same host.
11. Complete the installation.
12. [Run the SmartConnector](#).

For instructions about upgrading the connector or modifying parameters, see [SmartConnector Installation and User Guide](#).

Device Event Mapping to ArcSight Fields

The following section lists the mappings of ArcSight data fields to the device's specific event definitions. See the *ArcSight Console User's Guide* for more information about the ArcSight data fields.



Note: If you use MySQL JDBC driver 5.1.38, then the connector does not receive events. Therefore, use MySQL JDBC driver version 5.0.8.

Citrix NetScaler Mappings to ArcSight Fields

ArcSight ESM Field	Device-Specific Field
Additional data	PID1
Agent (Connector) Severity	Very High = EMERGENCY, ALERT; High = WARNING, VARIABLE, CRITICAL; Medium = NOTICE, ERROR, Error; Low = INFO, DEBUG, Informational, Debug
Destination Address	Destination Ipv4 Address
Destination Host Name	Destination HostName
Destination Port	Destination Port Number
Destination Service Name	Destination Service Name
Detect Time	DateTime
Device Address	DeviceAddress
Device Custom Date 1	End Time
Device Custom IPv6 Address 1	Device IPv6 Address
Device Custom String 1	Object
Device Custom String 2	Monitor
Device Custom String 3	Field
Device Custom String 4	Device
Device Custom String 6	Script
Device Event Class ID	Action
Device Host Name	One of (DeviceHost, DeviceHost1)
Device Process ID or Old File ID	PID2

ArcSight ESM Field	Device-Specific Field
Device Product	'NetScaler'
Device Severity	INFO
Device Vendor	'Citrix'
Message	Message
Name	Action
Source Service Name	Service

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