Logger SmartConnector™ Configuration Guide for

Snort Syslog

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ArcSight
An HP Company

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The network information used in the examples in this document (including IP addresses and hostnames) is for illustration purposes only.

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Revision History

Date	Description
05/15/2011	Update to guide for Logger v.5.1.
11/09/2010	Editorial update.
09/20/2010	First release of Logger SmartConnector documentation supporting Logger v.5.0 – Downloadable Version.

Logger SmartConnector for Snort Syslog

ArcSight Logger is a log management solution optimized for extremely high event throughput, efficient long-term storage, and rapid data analysis. This SmartConnector supports Logger 5.0 Downloadable Version.

This guide provides information for installing the SmartConnector for Snort Syslog and configuring the device for syslog event collection. Snort versions 2.8 and 2.9 are supported.

Product Overview

Snort's open source network-based intrusion detection system (NIDS) performs real-time traffic analysis and packet logging on Internet Protocol (IP) networks. Snort performs protocol analysis, content searching, and content matching. The program can also be used to detect probes or attacks, including, but not limited to, operating system fingerprinting attempts, common gateway interface, buffer overflows, server message block probes, and stealth port scans.

The SmartConnector for Snort Syslog forwards Snort-generated events to the ArcSight ESM Manager. See the section "Device Event Mapping to ArcSight Data Fields" later in this document for the specific events mapped to fields in the ArcSight database.

Configuration

To configure the device:

1. Locate and open the main Snort configuration file to edit:

   ```
   <Snort_home>/etc/snort.conf
   ```

2. Locate the `# syslog` section.

3. Comment out the following line. Change from:

   ```
   output alert_syslog: host=<hostipaddress>:514, LOG_AUTH LOG_ALERT
   ```

   to

   ```
   #output alert_syslog: host=<hostipaddress>:514, LOG_AUTH LOG_ALERT
   ```

4. Add the following line under the line you commented out.

   ```
   output alert_syslog: host=<hostipaddress>:514, LOG_AUTH LOG_ALERT
   ```

   where `<hostipaddress>` is the IP address of your syslog host.

5. Start Snort with the `-s` option; for example:

   ```
   C:\Snort>bin\snort -c etc\snort.conf -s
   ```

See the *Snort User's Guide*, `alert.syslog` section for more details on configuring syslog output.

Configure the Syslog SmartConnectors

The three 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 the SmartConnector for Syslog Daemon, simply start the connector, either as a service or as a process, to start receiving events; no further configuration is needed.

Messages longer than 1024 bytes are 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 (`syslog.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.**

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.

Configure 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/syslog.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/syslog.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 the following line to your **/etc/syslog.conf** file:

```
*.debug  /var/tmp/syspipe
```

For syslog pipe on Linux, use:

```
*.debug  |/var/tmp/syspipe
```

3 After you have modified the file, restart the 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:

```
service syslog restart
```

This command forces the syslog daemon to reload the configuration and start writing to the pipe you just created.

For syslog file:

Create a file or use the default for the file into which log messages are to be written. The default is `var/log/messages`

After editing the `/etc/syslog.conf` file, be sure to restart the syslog daemon as described above.

When you follow the SmartConnector Installation Wizard, you will be prompted for the absolute path to the syslog file or pipe you created.

Install the SmartConnector

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 *Configuring the Syslog SmartConnector* in this guide for more information):

Syslog Daemon
Syslog Pipe
Syslog File

All three syslog connectors are supported for installation on Linux platforms. The syslog daemon connector is also supported for installation on Windows platforms.

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 by default listens on port 514 (configurable) for UDP syslog events; you can configure the port number or use of the TCP protocol manually. The syslog pipe and syslog file connectors read events from a system pipe or file, respectively. Select the one that best fits your syslog infrastructure setup.

SmartConnector Installation

Before installing the SmartConnector, be sure the following are available:

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

Unless specified otherwise at the beginning of this guide, this SmartConnector can be installed on all ArcSight supported Linux and Windows platforms; for the complete list, see the SmartConnector Product and Platform Support document.

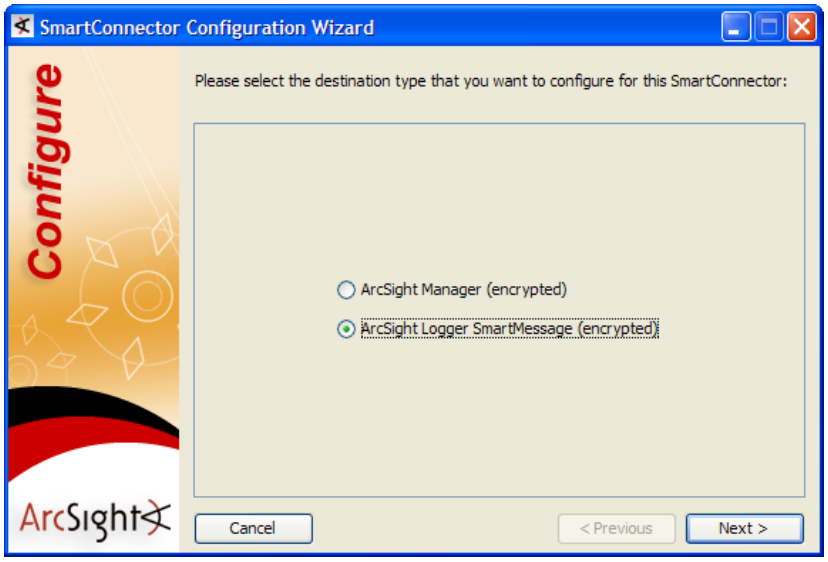
1. Download the ArcSight executable for your operating system from the ArcSight Customer Support Site per the instructions provided in the connector release notes.
2. Start the ArcSight SmartConnector Installer by running the executable.

When Installing a Syslog Daemon SmartConnector in a UNIX environment, run the executable as 'root' user.

Follow the Installation Wizard through the following folder selection tasks and installation of the core connector software:

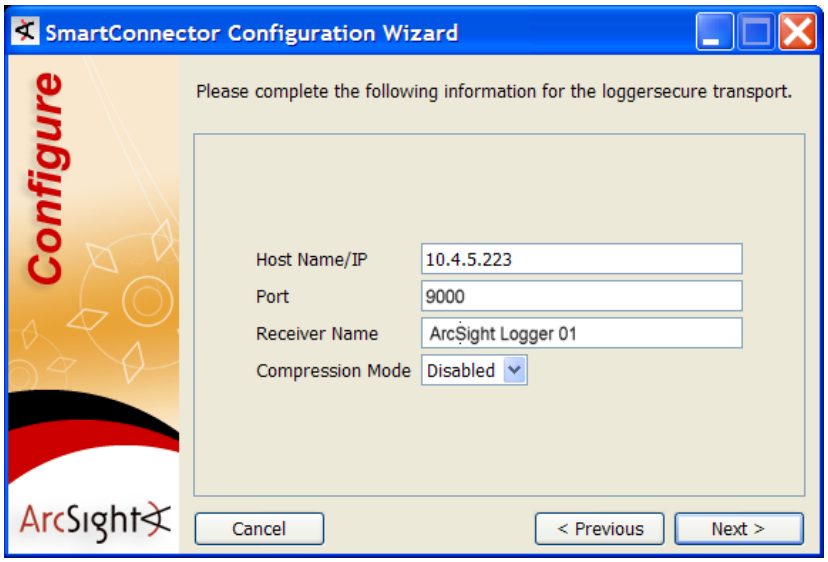
Introduction
Choose Install Folder
Choose Install Set
Pre-Installation Summary
Installing...

3. When the destination window is displayed, make sure **ArcSight Logger SmartMessage (encrypted)** is selected and click **Next**.



4. Before proceeding with step 5, set up the **SmartMessage Receiver** from the Logger appliance (see the *ArcSight Logger Administrator's Guide* for detailed instructions).

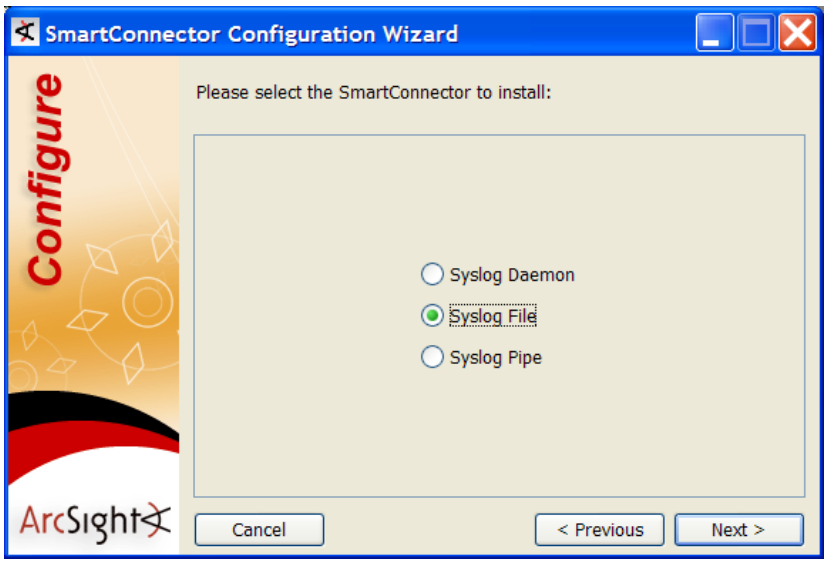
5 From the Configuration Wizard, enter the Logger **Host Name/IP**, make sure the **Port** number is **9000**, and enter the **Receiver Name**. This setting should match the Receiver name you created in the previous step so that Logger can listen to events from this SmartConnector. Click **Next**.



6 Depending upon your platform, choose between the required connector types.

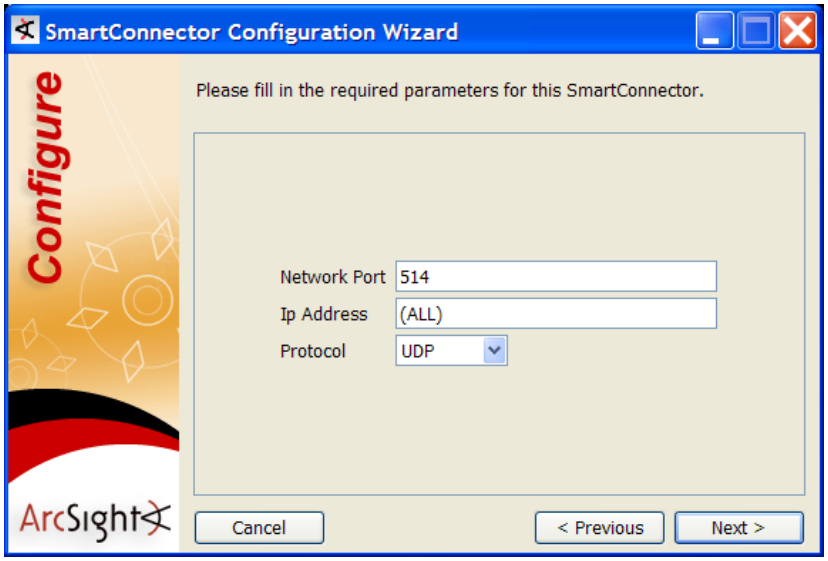
For **Windows** platforms, **Syslog Daemon** is the only available option.

For **Linux** platforms, select **Syslog Daemon**, **Syslog File**, or **Syslog Pipe**.



7 Enter the required SmartConnector parameters to configure the SmartConnector, then click **Next**.

For **Syslog Daemon**:

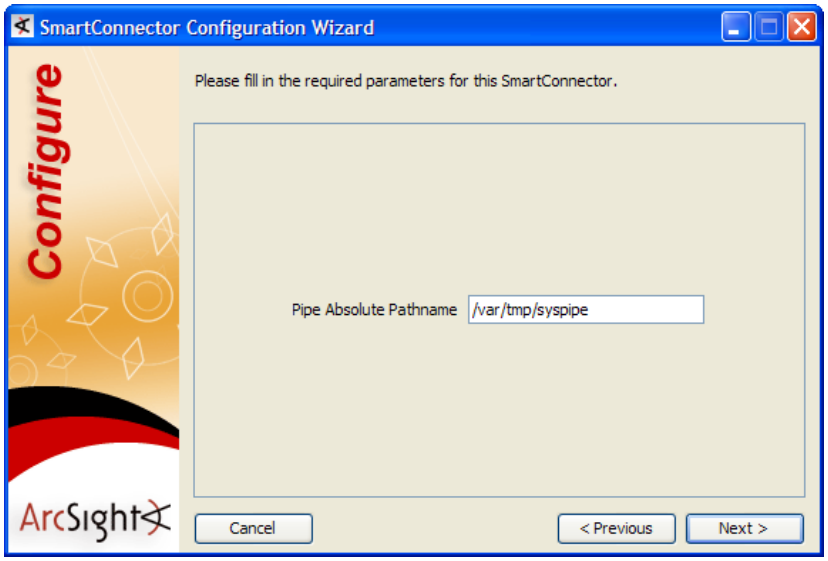


Syslog Daemon Parameters	*Network port*	The SmartConnector for Syslog Daemon listens for syslog events on this port.
	IP Address	The SmartConnector for Syslog Daemon listens for syslog events only on this IP address (accept the default (ALL) to bind to all available IP addresses).
	Protocol	The SmartConnector for Syslog Daemon uses the selected protocol (UDP or Raw TCP) to receive incoming messages.

For **Syslog File**:

Syslog File Parameter	*File Absolute Path Name*	Absolute path to the file, or accept the default: /var/log/messages

For **Syslog Pipe**:



Syslog Pipe Parameter	*Pipe Absolute Path Name*	Absolute path to the pipe, or accept the default: /var/tmp/syspipe

8 Enter a name for the SmartConnector and provide other information identifying the connector's use in your environment. Click **Next**.

9 Read the SmartConnector summary and click **Next**. If the summary is incorrect, click **Back** to make changes.

10 When the SmartConnector completes its configuration, click **Next**. The Wizard prompts you to choose whether you want to run the SmartConnector as a process or as a service.

If you choose **Yes**, to run the SmartConnector **as a service**, the Wizard prompts you to define service parameters for the SmartConnector.

If you choose **No**, to run the SmartConnector as a **standalone application**, go to step **11**.

11 After making your selections, click **Next**. The Wizard displays a dialog confirming the SmartConnector's setup and/or service configuration.

12 Click **Finish**.

For some SmartConnectors, a system restart is required before the configuration settings you made take effect. If a **System Restart** window is displayed, read the information and initiate the system restart operation.

Save any work on your computer or desktop and shut down any other running applications (including the ArcSight Console, if it is running), then shut down the system.

To uninstall the connector, or for connector upgrade instructions, see the *SmartConnector User's Guide*.

Run the SmartConnector

SmartConnectors can be installed and run in standalone mode, on Windows platforms as a Windows service, or on UNIX platforms as a UNIX daemon, depending upon the platform supported. On Windows platforms, SmartConnectors also can be run using shortcuts and optional Start menu entries.

If installed standalone, the SmartConnector must be started manually, and is not automatically active when a host is re-started. If installed as a service or daemon, the SmartConnector runs automatically when the host is re-started. For information about connectors running as services or daemons, see the *ArcSight SmartConnector User's Guide*.

For connectors installed standalone, to run all installed SmartConnectors on a particular host, open a command window, go to `$ARCSIGHT_HOME\current\bin` and run: `arcsight connectors`

To view the SmartConnector log, read the file: `$ARCSIGHT_HOME\current\logs\agent.log`

To stop all SmartConnectors, enter `Ctrl+C` in the command window.