
Micro Focus Security

ArcSight Micro Focus Security

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SmartConnector for Linux Audit File

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SmartConnector for Linux Audit File

This guide provides information for installing the SmartConnector for Linux Audit File and configuring the device for event collection. Linux auditd is the userspace component to the Linux Auditing System that is responsible for writing audit records to the disk.

Product Overview

The Linux auditd daemon is similar to network-based intrusion detection systems and host-based intrusion detection systems and can help you detect violations of your security policies. It however, does not enforce security policies. Because the audit daemon is part of the Linux kernel, it is included in most major Linux distributions by default.

Supported versions for Linux auditd to collect events from Red Hat Enterprise Linux (RHEL) are:

6.4, 6.5, 6.7, 7.1, 7.2, 7.4, 7.5, 7.6, 8.1, 8.2, and 8.3

Installing the SmartConnector

The following sections provide instructions for installing and configuring the Linux Audit File SmartConnector.



Connector Appliance or ArcSight Management Center supports mounting for Network File System (NFS) and CIFS (Windows) shares. When you install this connector on one of these devices, establish a CIFS mount on the device before adding the connector. Provide this share name during connector configuration. For more information, see **Remote File Systems** in the Connector Appliance or ArcSight Management Center Administrator's Guide.

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, and start the installation procedure from [step 3](#).

Before installing the SmartConnector, ensure that you have the following:

- 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 Linux Audit File Connector. For detailed installation steps or for manual installation steps, see [SmartConnector Installation and User Guide](#).

To install and configure the Linux Audit File 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. From the **Type** drop-down list, select **Linux Audit File** as the type of connector, then click **Next**.
5. Enter the required SmartConnector parameters to configure the SmartConnector, then click **Next**.

Parameter	Description
Log File Name	Enter the path to and name of the log file. The default value is /var/log/audit/audit.log.

6. Select a [destination and configure parameters](#).
7. Specify a name for the connector.
8. Select whether you want to [run the connector as a service or in the standalone mode](#).
9. Complete the installation.
10. [Run the SmartConnector](#).

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



When using Windows authentication, after completing the connector installation, if running on a Windows Server, change the service account to use the Windows account that should log in to the database. The connector will use the account used to start the service, regardless of the account value setting entered in the connector setup process.

Configuration

For complete information about the Linux auditd daemon, see the man pages for `auditd`, `auditd.conf`, and `auditctl`. You can access these man pages by running the `man auditd` or `man auditctl` commands, from the command line of your Linux system.

- `auditctl` is responsible for controlling the status and some basic system parameters of `auditd`. Using audit rules, `auditctl` controls which components of your system are subjected to the audit and to what extent they are audited. Audit rules can be passed to `auditd` on the `auditctl` command line as well as by composing a rule set and instructing `auditd` to process this file.
- `auditd` has built-in functions to watch access attempts to files without needing to monitor the applicable system calls. Administrators can add rules by amending the provided configuration files or at run time using the command line. The default location for the audit daemon rules in `/etc/audit/audit.rules`.

`auditd` adds events to the audit log file as they occur. By default, the system stores audit logs in `/var/log/audit/`.

Before you can start generating audit logs and processing them, configure how the daemon is started in the `/etc/sysconfig/auditd` configuration file and configure how the audit system functions once the daemon has been started in `/etc/audit/auditd.conf`.

Configuring Event Merging

The Linux Audit system provides a way to track security-relevant information on the system. Based on pre-configured rules, Linux Audit generates log entries to record as much information as possible about the events happening on your system. These events often contain multiple sub-events that can span multiple lines. The event merging feature aggregates the related sub-events into one large event with a concatenated long message.

To enable event merging:

1. Set up Linux Audit connector. See [Installing the SmartConnector](#).
2. Edit the `fcg.version` parameter in the `agent.properties` file (located in the `$ARCSIGHT_HOME/current/user/agent` folder) as follows: `agents[0].fcg.version=1`
3. [Run the SmartConnector](#).

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.

Linux Audit Mappings to ArcSight Fields

ArcSight ESM Field	Device-Specific Field
Application Protocol	proto
Destination Address	One of (daddr,laddr,dst)
Destination Mac Address	dmac
Destination Port	One of (dest, dport, lport)
Destination Process ID	One of (egid,opid)
Destination Process Name	One of (exe, comm, cmd ,ocomm)
Destination Service Name	One of (com, ocomm, grantors)
Destination User ID	One of (auid, new auid, old auid, old-auid, ouid)
Destination User Name	One of (new-seuder, acct, OUID)
Destination User Privilege	new-role
Device Action	op
Device Custom Number 1	calipso_doi
Device Custom Number 2	One of (oses,ses,new ses, oldses,old-ses)
Device Custom Number 3	uid
Device Custom String 1	One of (dev, old, nsec)
Device Custom String 2	One of (key, calipso_type, new, sec)
Device Custom String 3	One of (success, res)
Device Custom String 4	One of(syscall,SYSCALL,op)
Device Custom String 5	subj
Device Custom String 6	One of (terminal, tty)
Device Event Category	type

SmartConnector for Linux Audit File

Device Event Mapping to ArcSight Fields

ArcSight ESM Field	Device-Specific Field
Device Event Class ID	One of (res, type, both (type, res))
Device Host Name	node
Device Inbound Interface	inif
Device Outbound Interface	outif
Device Process Name	'auditd'
Device Product	'auditd'
Device Receipt Time	timestamp
Device Vendor	'Unix'
Device Version	One of (ver, kernel)
Event Destination	ProcessId egid
Event Outcome	One of (result, res, __simpleMap(success, "yes=Successful", "no=Failed"))
Event Reason	One of (reason, cause)
External ID	callid
File Hash	One of (proctitle, data, cmd, fp)
File ID	One of (watch_inode, cap_fver, sw)
File Name	One of (path, name, watch, obj)
File Path	cwd One of (cwd, root_dir)
File Permission	One of (mode, perm)
File Size	ksize
Flex String 2	One of (ppid, direction)
Message	msg
Name	One of (res, type, both (res, type), 'Linux Audit Message')
Old File Hash	mac
Old File ID	All of (a0, a1, a2, ...)
Old File Name	cipher
Old File Path	cmdline
Request URL	pfs
Source Address	One of (addr, saddr, src)
Source Host Name	hostname
Source Mac Address	smac

ArcSight ESM Field	Device-Specific Field
Source Port	One of (sport, rport)
Source Process ID	One of (pid, Spid, spid)
Source User ID	One of (saudit, uid, oauid,AUID)
Source User Name	One of (user, old-seuser, EUID,OAUID)
Source User Privileges	One of (old-role, EGID)



Note: The connector will not receive events if MySQL JDBC driver 5.1.38 was used when you configured it. To fix this issue, apply MySQL JDBC driver 5.0.8.

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