

NetWitness[®] Platform

Linux Event Source Log Configuration Guide

Linux

Event Source Product Information:

Vendors: [Red Hat Enterprise](#), [Debian](#), [Novell](#)

Event Source: Linux

Versions:

- Red Hat: 3.x, 4.x, 5.x, 6.0, 7.x, 8.x, 9.x
- Almalinux 9.x
- Novell SuSE Linux Enterprise 9, 10, 10.2, 11, 12.x, and 15
- Debian GNU/Linux 3.1 and 4.0

Note: NetWitness supports the major version. In case of any configuration changes or logs not parsing in a minor version, please open a case in the NetWitness Community Portal for support.

NetWitness Product Information:

Supported On: NetWitness Platform 12.4.1 and higher

Note: Linux is supported from NetWitness Platform XDR 12.4.1. However, NetWitness recommends you to update NetWitness Platform to the latest version.

Event Source Log Parser: rhlinux

Collection Method: Syslog

Event Source Class.Subclass: Host.UNIX

Contact Information

NetWitness Community at <https://community.netwitness.com> contains a knowledge base that answers common questions and provides solutions to known problems, product documentation, community discussions, and case management.

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To configure your version of Linux, perform the following tasks:

- Follow the appropriate configuration instructions for your Linux vendor:
 - [Configure Novell SuSE 15 SP2](#)
 - [Configure Novell SuSE 10.2](#)
 - [Configure Other Linux Versions](#)
- If you use Red Hat Linux, you must also perform the following tasks:
 1. [Configure Auditd on Red Hat Linux](#)
 2. [Configure WTMP Logs for Red Hat Linux](#)
 3. [Configure the iptables Service](#)
- [Configure NetWitness Platform](#)

Configure Novell SuSE 15 SP2

Perform the steps specified in SuSE System Analysis and Tuning Guide, [System Log Files](#), to collect SuSE 15 SP2 logs.

Configure Novell SuSE 10.2

You can use either UDP or TCP. Follow the appropriate instructions for the protocol that you are using.

Configure UDP

To configure SuSE Linux using UDP:

1. On the Linux appliance, log on as **root**.
2. Open the `/etc/syslog-ng/syslog-ng.conf.in` file.
3. At the end of the file, add the following lines:

```
# send everything to log host
destination loghost {
    udp ("xxx.xxx.xxx.xxx" port (yy) );
};
log {
    source (src);
    destination (loghost);
};
```

where:

- `xxx.xxx.xxx.xxx` is the IP address of the NetWitness Log Decoder or Remote Log Collector.
 - `yy` is the port number on which the NetWitness Log Decoder or Remote Log Collector is listening for incoming syslog messages.
4. Run the following commands:

```
SuSEconfig --module syslog-ng
/etc/init.d/syslog restart
```

Note: If you have Novell SuSE 9 or earlier, you must stop and start the service by running these commands:

```
/etc/init.d/syslog stop
/etc/init.d/syslog start
```

Configure TCP

Perform the following steps on the Linux event source to configure SuSE Linux to send syslog in TCP packets.

To configure SuSE Linux 10.2 to send syslog in TCP packets:

1. On the Linux machine, log on as **root**.
2. Open the `/etc/syslog-ng/syslog-ng.conf` file.

3. At the end of the file, add the following lines:

```
# send everything to log host
destination loghost {
    tcp("xxx.xxx.xxx.xxx" port(yy));
};
log {
    source(src);
    destination(loghost);
};
```

where:

- xxx.xxx.xxx.xxx is the IP address of the NetWitness Log Decoder or Remote Log Collector.
- yy is the port number on which the NetWitness Log Decoder or Remote Log Collector is listening for incoming syslog messages.

4. Run the following commands:

```
SuSEconfig --module syslog-ng
/etc/init.d/syslog start
```

Configure Other Linux Versions

To configure any other Linux version:

1. On the Linux appliance, open the `/etc/syslog.conf` file in a text editor. If you are using Redhat Linux 6.0 or higher, open `/etc/rsyslog.conf`.
2. To configure the event source to log all messages of debug level and higher to the syslog server, add the following line:

```
*.debug @xxx.xxx.xxx.xxx
```

where `xxx.xxx.xxx.xxx` is the IP address of the NetWitness Log Decoder or Remote Log Collector.

3. Save the file, and close the text editor.
4. To restart the syslog service, depending on your version of Linux, run the following command:
 - For Redhat Linux 6.0:

```
service rsyslog restart
```
 - For other versions of Linux:

```
service syslog restart
```

Configure Auditd on Red Hat Linux

If you use redhat linux, you must configure auditd, Follow the below steps to forward the auditd log to Netwitness log decoder or remote log collector

1. Enable the audit dispatcher syslog plugin by editing **plugins.d/syslog.conf**, setting the active option to yes, and also the syslog facility and priority in the args option:

RHEL 7 and earlier

```
[root@r79 ~]# vi /etc/audit/plugins.d/syslog.conf
active = yes
args = LOG_INFO LOG_LOCAL3
```

RHEL 8 and later

In RHEL 8 and later the audisp-syslog plugin is required to be installed separately, and the location of the plugin configuration file is **/etc/audit/** instead of **/etc/auditp/**

```
[root@r88 ~]# dnf install audispd-plugins
[root@r88 ~]# vi /etc/audit/plugins.d/syslog.conf
active = yes
args = LOG_INFO LOG_LOCAL3
```

2. Edit syslog configuration **/etc/rsyslog.conf** and add a line sending local3.info log records to the Netwitness logdecoder/log collector

```
[root@client ~]# vi /etc/rsyslog.conf
#[...]
local3.info @<Netwitness logdecoder/log collector IP address>
# Log anything (except mail) of level info or higher.
# Don't log private authentication messages!
*.info;mail.none;authpriv.none;cron.none /var/log/messages
```

3. Restart the syslog daemon and audit services:

RHEL 6

```
[root@r610 ~]# service rsyslog restart
Shutting down system logger: [ OK ]
Starting system logger: [ OK ]
[root@r610 ~]# service auditd restart
Stopping auditd: [ OK ]
Starting auditd: [ OK ]
```

RHEL 7 and later

```
[root@r79 ~]# systemctl restart rsyslog
[root@r79 ~]# service auditd restart
Stopping logging: [ OK ]
Redirecting start to /bin/systemctl start auditd.service
```

4. Verify the logdecoder/log collector is receiving audit messages from the client:

```
[root@remote ~]# tail -f /var/log/messages
...
Sep 2 08:16:07 client auditd[31740]: Started dispatcher:
/sbin/audispd pid: 31742
Sep 2 08:16:07 client audispd: af_unix plugin initialized
Sep 2 08:16:07 client audispd: syslog plugin initialized
Sep 2 08:16:07 client audispd: audispd initialized with q_depth=80
and 2 active plugins
Sep 2 08:16:07 client audispd: node=client.example.com type=DAEMON_
START msg=audit(1314969367.616:317): auditd start...
```

Configure WTMP Logs for Red Hat Linux

To configure WTMP logs for Red Hat Linux:

1. Create a new directory named *\$Home/wtmp*, where *\$home* is your home directory.
2. Download the **nicwtmp.sh** script NetWitness Link: [Linux](#).
3. Place the **nicwtmp.sh** file in the **wtmp** directory.
4. Schedule the script to run as a Cron task every hour. For instructions, see the [Red Hat Linux Product Documentation](#), or search the web for how to schedule a cron job on RHEL.

Configure the iptables Service

Note: Before configuring the iptables service, you must configure Red Hat Linux as described in [Other Linux Configuration Instructions](#).

To configure the iptables service to obtain syslog events:

1. To check the status of the iptables service, open a command prompt, and run the following command:

```
iptables status
```

If the iptables service is not running, to start the service type the following command:

```
iptables start
```

2. To enable iptables to send logs through syslog, insert a LOG rule just before the rule from which you want to collect logs. Follow these steps:

- a. To log an event, run the following command:

```
# /sbin/iptables -I <ipchain_name> <rule-id/serial no> -j LOG --log-level 7
```

- b. To add a prefix to the log, run the following command:

```
# /sbin/iptables -I <ipchain_name> <rule-id/serial no> -j LOG --log-level 7 --log-prefix "<any desired prefix>"
```

- c. To save the new LOG rule, type the following command:

```
iptables-save
```

Configure NetWitness Platform



Perform the following steps in NetWitness Platform:

- [Ensure the Required Parser is Enabled](#)
- [Configure Syslog Collection](#)

Ensure the Required Parser is Enabled

If you do not see your parser in the list while performing this procedure, you need to download it in NetWitness Platform Live.

Ensure that the parser for your event source is available:





1. In the **NetWitness** menu, select  (Admin) > **Services**.
2. In the **Services** grid, select a Log Decoder, and from the **Actions** () menu, choose **View > Config**.
3. In the **Service Parsers Configuration** panel, search for your event source, and ensure that the **Config Value** field for your event source is selected.

Note: The required parser is **rhlinux**.



Configure Syslog Collection

Note: You only need to configure Syslog collection the first time that you set up an event source that uses Syslog to send its output to NetWitness. You only need to configure either the Log Decoder or the Remote Log Collector for Syslog, not both.

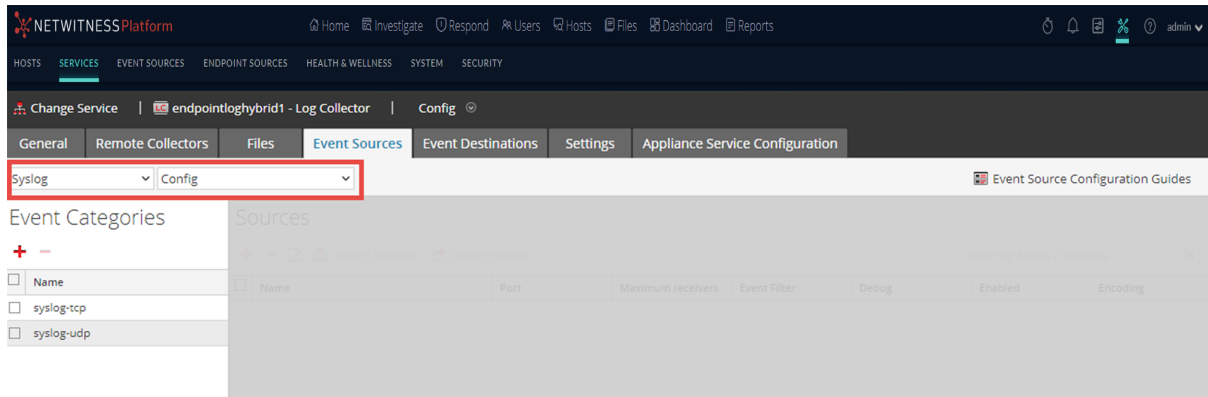
To configure Log Decoder for Syslog Collection

1. In the NetWitness Platform menu, select  (Admin) > **Services**.
2. In the **Services** grid, choose a Log Decoder and from the **Actions** () menu, choose **View > System**.
3. Depending on the icon you see, do one of the following:
 - If you see  **Start Capture**, click the icon to start capturing Syslog.
 - If you see  **Stop Capture**, you do not need to do anything; this Log Decoder is already capturing Syslog.

To configure Remote Log Collector for Syslog Collection

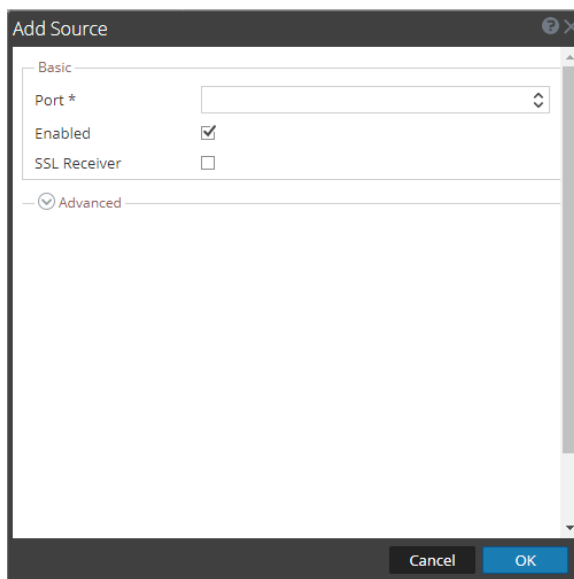
1. In the NetWitness Platform menu, go to  (Admin) > **Services**.
2. In the **Services** grid, select a Remote Log Collector and from the **Actions** () menu, choose **View** > **Config** > **Event Sources**.
3. Select **Syslog / Config** from the drop-down menu.

The **Event Categories** panel displays the Syslog event sources that are configured, if any.



4. In the **Event Categories** panel toolbar, click **+**.
The **Available Event Source Types** dialog will appear.
5. Choose either **syslog-tcp** or **syslog-udp**. You can set up either or both, depending on the needs of your organization.
6. Choose the **New Type** in the **Event Categories** panel and click **+** in the **Sources** panel toolbar.

The **Add Source** dialog will appear.



7. Enter **514** for the port and choose **Enabled**. Optionally, configure any of the Advanced parameters as necessary.

Click **OK** to accept your changes and close the dialog box.

After you configure one or both syslog types, the Log Decoder or Remote Log Collector collects those types of messages from all available event sources. You can continue to add Syslog event sources to your system without a need to do any further configuration in NetWitness Platform.

Getting Help with NetWitness Platform

Self-Help Resources

There are several options that provide you with help as you need it for installing and using NetWitness:

- See the documentation for all aspects of NetWitness here: <https://community.netwitness.com/t5/netwitness-platform/ct-p/netwitness-documentation>.
- Use the **Search** and **Create a Post** fields in NetWitness Community portal to find specific information here: <https://community.netwitness.com/t5/netwitness-discussions/bd-p/netwitness-discussions>.
- See the NetWitness Knowledge Base: <https://community.netwitness.com/t5/netwitness-knowledge-base/tkb-p/netwitness-knowledge-base>.
- See the documentation for Logstash JDBC input plugin here: <https://www.elastic.co/guide/en/logstash/current/plugins-inputs-jdbc.html>.
- See Troubleshooting section in the guides.
- See also [NetWitness® Platform Blog Posts](#).
- If you need further assistance, [Contact NetWitness Support](#).

Contact NetWitness Support

When you contact NetWitness Support, please provide the following information:

- The version number of the NetWitness Platform or application you are using.
- Logs information, even source version, and collection method.
- If you have problem with an event source, enable **Debug** parameter (set this parameter to **On** or **Verbose**) and collect the debug logs to share with the NetWitness Support team.

Use the following contact information if you have any questions or need assistance.

NetWitness Community Portal	https://community.netwitness.com In the main menu, click Support > Case Portal > View My Cases .
International Contacts (How to Contact NetWitness Support)	https://community.netwitness.com/t5/support/ct-p/support
Community	https://community.netwitness.com/t5/netwitness-discussions/bd-p/netwitness-discussions

Feedback on Product Documentation

You can send an email to feedbacknwdocs@netwitness.com to provide feedback on NetWitness Platform documentation.