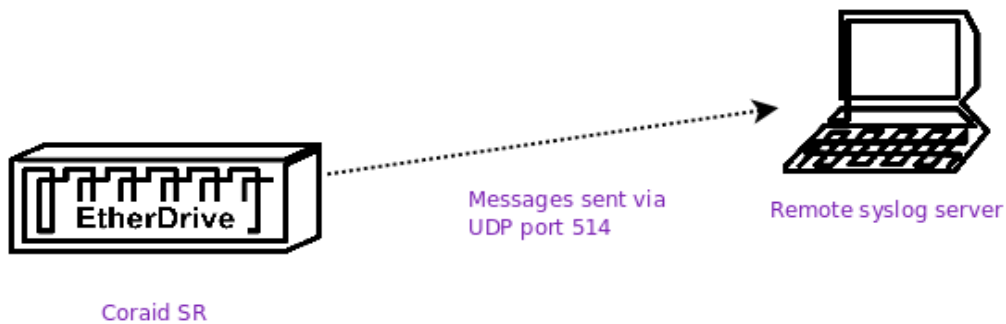


How to log to a remote host via syslog

Objective

Coraid's SR storage boxes have the ability to log to remote hosts. This could be any remote server, including the host server that the SR is connected to over the network. This is helpful in order to be informed of failures on the SR or configuration changes. These instructions are mainly geared to be OS agnostic, but are intended for most Unix/Linux/BSD/OS X distributions. If you would like a guide for syslog-ng, please visit our [syslog-ng documentation](#). If you are using Windows, please try [Kiwi](#).



Resolution

1. Configure the SR to log to a remote host

To start, log into the Coraid SR via cec and configure it to log to your remote syslog server. If you need help with configuring cec, please visit our [cec documentation](#). Generally speaking, the SR will not have an IP address. But, for syslog to work, the Coraid SR needs an IP address. This is not a pingable, accessible IP address, but is used only for the syslog daemon. In this configuration example, we assign the SR an IP of 192.168.0.15 and the remote syslog server that we will be logging to is 192.168.0.8.

```
LD shelf 2> syslog -c
Configuring syslog. Enter IP addresses in dotted notation.
Local interface is in the format ether[0-9].
IPv4 destination address []: 192.168.0.8
IPv4 source address [205.185.197.30]: 192.168.0.15
Local syslog interface [ether0]: ether1
Configuration successful.
LD shelf 2> syslog -p
destination IP: 192.168.0.8
source IP: 192.168.0.15
local interface: ether1
```

2. Configure syslog to allow remote logging

Note that the following example utilizes the syslog convention on a CentOS/Red Hat system – the

actual location of your syslog configuration file(s) may vary depending on your distribution. Consult the syslog documentation for your particular distribution if you notice a variance.

On the remote syslog server, edit the `/etc/sysconfig/syslog` file and add the `-r` option to the `SYSLOGD_OPTIONS` configuration. This line should look similar to this:

```
SYSLOGD_OPTIONS="-r -m 0"
```

Then, as an important step, make sure to restart the `syslog` or `syslogd` service.

3. Remove network barriers

Now that the syslog server is running and accepting remote logging, make sure that any firewall (whether on the remote syslog server or on the network) is allowing UDP port 514. This is the port that the SR uses for logging.

4. Test SR logging

Finally, use the `syslog` command on the SR to test the setup. Here we are sending a syslog message from the SR:

```
LD shelf 2> syslog Hello World!  
Hello World!
```

And here we are receiving it on the remote syslog server:

```
[root@syslogServer ~]# tail /var/log/messages | grep Hello  
Sep 11 12:46:54 192.168.0.15 shelf_2 Hello World!
```

This demonstrates that syslog is working and that the SR and the remote syslog server are communicating properly.

5. Examples of SR log events

Here are some examples of some logging events that could happen on an SR.

One failed disk in RAID 5 or 10 with spare allocated:

```
Sep 11 13:12:58 192.168.0.15 shelf_2 raid device 7.0.0 has failed  
Sep 11 13:12:58 192.168.0.15 shelf_2 spare 2.20 allocated for 7.0.0  
Sep 11 13:12:58 192.168.0.15 shelf_2 beginning recovery of disk 7.0.0
```

One failed disk in RAID 5 or 10 without spare allocated (or spare is too small):

```
Sep 11 13:18:40 192.168.0.15 shelf_2 raid device 7.0.0 has failed  
Sep 11 13:18:40 192.168.0.15 shelf_2 aborted recovery of disk 7.0.0  
Sep 11 13:18:40 192.168.0.15 shelf_2 no spare large enough for 7.0.0
```

Failure of a RAID:

```
Sep 11 13:35:04 192.168.0.15 shelf_2 raidshield: unrecoverable error on disk 7.0.1 at block 1547078
Sep 11 13:35:04 192.168.0.15 shelf_2 raid device 7.0.1 has failed
Sep 11 13:35:04 192.168.0.15 shelf_2 unrecoverable failure on raid 7.0
Sep 11 13:35:04 192.168.0.15 shelf_2 warning: config save error for 7.0.1
```

Soft disk failures fixed by RAIDShield. These may be indications of a pending disk failure:

```
Sep 11 14:25:32 192.168.0.15 shelf_2 raidshield: corrected error on disk
1.0.7 at block 1141029
Sep 11 14:35:32 192.168.0.15 shelf_2 raidshield: corrected error on disk
1.0.7 at block 1075163
Sep 11 14:35:33 192.168.0.15 shelf_2 raidshield: corrected error on disk
1.0.7 at block 1075164
```

6. E-mailing upon critical issues

There are two different ways to receive e-mails when critical events happen on the SR. For syslog, you can follow [this direction](#) for a syslog workaround, as it is not supported natively. Or, you can use Syslog-ng, another iteration of syslog, which supports e-mail alerts. Please visit our [syslog-ng documentation](#) for more information.

Additional Information

If you are having difficulty setting up anything contained within this document, please contact us at support@coraid.com. For more information, please reference the [SR software user manual](#) or the man pages within your system via the command:

```
user@server:~$ man syslogd
```

If you have any questions or comments regarding this documentation please let us know at support@coraid.com.

©2008 [Coraid, Inc.](#)