

# Monitoring Configuration¶

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This document discusses specific configuration options for MMS Monitoring, including hardware monitoring with Munin-Node, using MMS Monitoring with SSL.

## Hardware Monitoring with Munin-Node¶

MMS Monitoring provides support for collecting and charting hardware statistics collected with Munin<sup>[1]</sup>. You must install the munin-node package on each the host system that you wish to monitor.

munin-node, and hardware monitoring is only available for MongoDB instances running on Linux hosts.

On Debian and Ubuntu systems, issue the following command to install munin-node:

```
sudo apt-get install munin-node
```

To install munin-node on Red Hat, CentOS, and Fedora systems, issue the following command:

```
yum install munin-node
```

For Red Hat and CentOS 6.8 systems, you will need to install the EPEL repository **before** installing munin-node. To install the EPEL repository, issue the following command:

```
rpm -Uvh http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
```

When installation is complete, ensure that munin-node:

- is running. Use the command, “munin” to confirm. If the process is not running, issue the command “/etc/init.d/munin-node start”.
- will start following the next system reboot. This is the default behavior on most Debian-based systems. Red Hat and related distributions should use the “chkconfig” command, to configure this behavior (i.e. “chkconfig munin-node”)

- is accessible from the system running the agent. munin-node uses port 4949, which needs to be open on the monitored system, so the agent can access this data source. Use the following procedure to test access:

```
telnet HOSTNAME 4949
fetch iostat
fetch iostat_ios
fetch cpu
```

Replace [HOSTNAME] with the hostname of the monitored system. Run these commands from the system where the Monitoring agent is running. If these “fetch” commands return data, then munin-node is running and accessible by the Monitoring agent.

On some platforms, munin-node does not have all required plugins enabled.

For CentOS, the munin-node package does not have the iostat and iostat\_ios plugins enabled. Use the following operation to enable these plugins:

```
sudo ln -s /usr/share/munin/plugins/iostat /etc/munin/plugins/iostat
sudo ln -s /usr/share/munin/plugins/iostat_ios /etc/munin/plugins/iostat_ios
sudo /etc/init.d/munin-node restart
```

If munin-node is running but inaccessible, make sure that you have access granted for the system running the Monitoring agent and that no firewalls block the port between munin-node and the Monitoring agent. You may find the munin-node configuration at /etc/munin-node/munin-node.conf, /etc/munin/munin-node.conf, or /etc/munin-node.conf, depending on your distribution.

Additional considerations:

- If you have numbered disk devices (e.g. /dev/sda1 and /dev/sda2) then you will need to configure support for numbered disk in the munin iostat plugin. Find the configuration file at /etc/munin/plugin-conf.d/munin-node or a similar path, and add the following value:

```
[iostat]
env.SHOW_NUMBERED 1
```

- If you have Munin enabled and do not have iostat data in your Munin charts, your munin-node may not have write access to required state files in its munin/plugin-state/ directory. See the munin-node plugin log (i.e. /var/log/munin/munin-node.log or

similar depending on your distribution) for more information.

The full path of this state directory depends on the system, but is typically `/var/lib/munin/plugin-state/`. Run the following command sequence to correct this issue:

```
touch /var/lib/munin/plugin-state/iostat-ios.state
chown -R username:group /var/lib/munin/plugin-state/
chmod -R 660 /var/lib/munin/plugin-state/
```

Replace `[username]` and `[group]` with the username and group that the munin-node process runs with.

- Add the host running the monitoring agent to the *allow* directive in the `/etc/munin-node/munin-node.conf` file. The *allow* directive lists hosts allowed to query the munin-node process. Otherwise, traffic from the MMS host will be allowed via firewall but will not be collected by munin.

If you encounter any other problems, check the log files for munin-node to ensure that there are no errors with Munin. munin-node writes logs files in the `/var/log/` directory on the monitored system.

1. <http://munin-monitoring.org/>