

Detailed Monitoring for WLCG perfSONAR-PS Instances

The WLCG perfSONAR-PS deployment task force is evaluating MaDDash and OMD for us in monitoring all our perfSONAR-PS instances. Some details on the initial testing deployment are documented at <https://twiki.cern.ch/twiki/bin/view/LCG/MadDashWLCG>

We have the possibility to augment the WLCG perfSONAR-PS monitoring by leveraging some additional capabilities of the OMD (<http://omdistro.org/start>) deployment being tested. The **Checkmk** component of OMD has some agents that can be installed from RPM. If perfSONAR-PS host managers can install these we can get additional monitoring easily in place.

NOTE: If sites may have configured extra security via `/etc/hosts.allow` and `/etc/hosts.deny` they need to verify the needed services they enable below are allowed!

Enabling Check_MK agent Monitoring

To install the check_mk-agents on a perfSONAR-PS host, do the following:

- Login as `root` on the host
- Install the check_mk-agent and check_mk-agent-logwatch rpms via `yum`
 - ◆ `yum install http://mathias-kettner.de/download/check_mk-agent-1.2.4p5-1.noarch.rpm`
 - ◆ `yum install http://mathias-kettner.de/download/check_mk-agent-logwatch-1.2.4p5-1.noarch.rpm`

NOTE: The Checkmk download links above use an old address. New versions are available from <https://checkmk.de/download.php>

- Make sure any firewall allows access from the WLCG OMD test instance at `maddash.aglt2.org` (192.41.231.110) and from the OSG monitoring subnet (129.79.53.0/24).
 - ◆ `-A INPUT -m state --state NEW,ESTABLISHED -m tcp -p tcp --dport 6556 -s 192.41.231.110/32 -j ACCEPT`
 - ◆ `-A INPUT -m state --state NEW,ESTABLISHED -m tcp -p tcp --dport 6556 -s 129.79.53.0/24 -j ACCEPT`
- Update your `/etc/check_mk/logwatch.cfg` file to properly track the perfSONAR-PS logs. (Download example to customize from `logwatch.cfg`)
- Notify Shawn McKee that you have these installed on your host(s) so the monitoring config can be updated.

Enable SNMP Monitoring

We can also get additional information via `snmp` if sites are willing to deploy it. Here are the steps:

- Login as `root` on the host
- Install `net-snmp` via `yum`: `yum install net-snmp`
- Make sure `snmpd` will start with system
 - ◆ `chkconfig snmpd on`
- Configure `/etc/snmp/snmpd.conf` to allow the readonly community 'WLCGperfSONAR' by adding:
 - ◆ `rocommunity WLCGperfSONAR`
- Ensure any firewalls allow access to UDP port 161 from `maddash.aglt2.org` (192.41.231.110) and the OSG monitoring subnet (129.79.53.0/24). Here is an example line for `iptables`:
 - ◆ `-A INPUT -m state --state NEW,ESTABLISHED -p udp -m udp -s 192.41.231.110/32 --dport 161 -j ACCEPT`
 - ◆ `-A INPUT -m state --state NEW,ESTABLISHED -p udp -m udp -s 129.78.53.0/24 --dport 161 -j ACCEPT`
- Start `snmpd` via `'service snmpd start'`

- Notify Shawn McKee that you have enabled snmp monitoring access so the OMD configuration for your host(s) can be updated

Enable Dell Open Manage Server Administrator (OMSA) (For Dell Servers)

If you have a perfSONAR-PS node deployed on Dell server hardware we can monitor even more details if you install and enable Dell OMSA. Here are the steps (assumes you enabled SNMP above):

- Login as `root` on the host
- Configure to use the Dell OMSA repo:
 - ◆ `wget -q -O - http://linux.dell.com/repo/hardware/latest/bootstrap.cgi` |
`bash`
- Install OMSA via yum
 - ◆ `yum install srvadmin-all`
 - ◆ Once this finishes, log out and then log back in to make sure your environment/path is correct.
- Install OpenIPMI via yum
 - ◆ `yum install OpenIPMI`
- Source the appropriate setup:
 - ◆ `source /etc/profile.d/srvadmin-path.sh`
- Enable ipmi
 - ◆ `srvadmin-services.sh enable ipmi`
- Confirm that the `smuxpeer` is setup to pass OMSA information via snmp
 - ◆ Check that the `/etc/snmp/snmpd.conf` file contains a line like the one below. If not, add it
 - ◆ `smuxpeer .1.3.6.1.4.1.674.10892.1`
- Restart snmpd: `service snmpd restart`
- Start OMSA: `srvadmin-services.sh start`
- Verify that snmp can see the Dell OIDs:
 - ◆ This requires the `snmpwalk` utility. Either go to a host which has it installed or install `yum install net-snmp-utils`
 - ◆ `snmpwalk -v2c -c WLCGperfSONAR <host> 1.3.6.1.4.1.674.10892.1` (Where `<host>` is your host FQDN)
- Notify Shawn McKee that OMSA is installed so the OMD configuration for your host(s) can be updated

Send any questions or comments to Shawn.

-- ShawnMcKee - 28 Jan 2014

- `logwatch.cfg`: Logwatch configuration file for `check_mk-agent-logwatch`

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