

OMD (Open Monitoring Distribution)

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OMD Overview



❄ I wanted to give everyone a quick look at OMD (Open Monitoring Distribution). <http://omdistro.org/start>

❄ What is it?

- ❑ An easy-to-install monitoring package
- ❑ A new way to deploy Nagios and related components into a single package (RPM)
- ❑ Provides Nagios like tests, a rule-based system to configure with, automatic graph creation, high-performance (1 minute interval monitoring), customizable alerting and mapping.

Installation



- ❄ It is pretty easy to install. For CentOS(RHEL,SL) it is available as an RPM.
 1. Make sure EPEL is installed. rpm -Uvh "http://download.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm"
 2. Then to get OMD use rpm -Uvh http://labs.consol.de/repo/stable/rhel6/x86_64/labs-consol-stable.rhel6.noarch.rpm
 3. Finally: 'yum -y install omd-1.10'
- ❄ I set up OMD and MaDDash for WLCG perfSONAR monitoring and install details are at: <https://twiki.cern.ch/twiki/bin/view/LCG/MadDashWLCG>

Setup OMD



❄ On CentOS 6.x we need to fix a problem in OMD:

- ❑ In CentOS 6.4 there is a small issue with pathing in /usr/bin/omd. On line 794 You want to add the following highlighted red text....

```
“file(“/etc/fstab”, “a+”).write(“tmpfs /opt%s tmpfs  
noauto,user,mode=755,uid=%s,gid=%s 0 0\n” % \“
```

❄ Then we can setup a new ‘site’ in OMD. As ‘root’ you need to run: ‘omd setup’ to prepare OMD.

- ❑ Pick a name for your monitoring site. NOTE: this name will be used to create a new user of the same name which must not already exist! ‘omd create <SITENAME>’
- ❑ Start it: ‘omd start <SITENAME>’

Configure OMD



- ❄ To configure the site you could use the WATO interface on the web or you can login and use command line tools.
 - ❑ For now, login as root on the new system and 'su - <SITENAME>' to become the new site owner/user. The "root" of the site is in /omd/sites/ which is /omd/sites/<SITENAME> in our case.
- ❄ The easiest way to use/configure OMD is to exploit check_mk. The configuration files are in /omd/sites/<SITENAME>/etc/check_mk and sub-directories. The main file is appropriately called main.mk. Any files ending in .mk will be included. The 'wato' subdirectories are for WATO (Web Administration Tool).

Example Deployment



- ❄ We have setup OMD for monitoring AGLT2 and have deployed an instance at UM and MSU
 - ❑ <https://omd.aglt2.org/atlas/omd/>
 - ❑ <https://omd-msu.aglt2.org/aglt2msu/omd/>
 - ❑ (Login AGLT2-guest/USAtlas)

- ❄ We additionally have a deployment for the WLCG perfSONAR-PS monitoring at:
 - ❑ https://maddash.aglt2.org/WLCGperfSONAR/check_mk/index.py?start_url=%2FWLCGperfSONAR%2Fcheck_mk%2Fdashboard.py
(User WLCGps, pw given on call)

- ❄ I will try to provide a “tour” during the call using these

Example Check_MK Monitoring



An example of the type of monitoring is shown below for AGLT2s Vmware management instance.

http://omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dhost%26host%3Dumvmgmt%26site%3Domd-um

omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dhost%26host%3Dumvmgmt%26site%3Domd-um

Check_MK 1.2.4 Services of Host umvmgmt, UM 122 rows AGLT2.guest (quest) 10:47

Tactical Overview
 Hosts: 358 Problems: 1 Unhandled: 1
 Services: 8941 Problems: 29 Unhandled: 29

Quicksearch

Views
 Dashboards
 Hosts
 All hosts
 All hosts (Mini)
 All hosts (tiled)
 Favourite hosts
 Host search
 Hostgroups
 Services
 Servicegroups
 Business Intelligence
 Problems
 Addons
 Other

Bookmarks
 Add Bookmark

umvmgmt

State	Service	Icons	Status detail	Age	Checked	Perf-O-Meter
WARN	VM atgrid-s15-old		WARN - power state: poweredOff, defined on [umvm01.aglt2.org]	2014-03-11 18:02:42	40 sec	
OK	Check_MK		OK - Agent version 5.5, execution time 19.2 sec	2014-03-14 05:23:34	59 sec	19.2s
OK	Check_MK inventory		OK - no unchecked services found	2014-03-11 18:38:54	2 min	
OK	ESX CPU		OK - demand is 0.643 Ghz, 2 virtual CPUs	2014-02-25 12:53:28	40 sec	
OK	ESX Heartbeat		OK - Heartbeat status is green	2014-03-13 03:44:16	40 sec	
OK	ESX Memory		OK - Host: 7.42GB, Guest: 1.12GB, Ballooned: 0.00B, Private: 7.24GB, Shared: 778.00MB	2014-02-25 12:53:28	40 sec	7.4GB
OK	ESX Name		OK - umvmgmt	2014-02-25 12:53:28	40 sec	
OK	fs_AFS_SYSDISK_MD3600i		OK - 79.1% used (217.37 of 274.8 GB), (levels at 89.00/97.00%), trend: +8.43MB / 24 hours, uncommitted: 29.62 GB, provisioning: 89.9%	2014-02-25 12:53:28	40 sec	79.12% (+10.78%)
OK	fs_AFS_vicepg_MD3600i		OK - 83.5% used (932.66 of 1116.8 GB), (levels at 90.00/96.00%), trend: +517.80kB / 24 hours, uncommitted: 371.11 GB, provisioning: 116.7%	2014-02-25 12:53:28	40 sec	83.52% (+33.23%)
OK	fs_AFS_vicepg_SUN		OK - 99.9% used (998.96 of 999.8 GB), (levels at 100.00/101.00%), trend: +15.40kB / 24 hours, uncommitted: 0.00 GB, provisioning: 99.9%	2014-02-25 12:53:28	40 sec	99.92% (+0.00%)
OK	fs_AFS_vicepf_MD3600i		OK - 89.4% used (998.15 of 1116.8 GB), (levels at 95.00/97.00%), trend: +32.54MB / 24 hours, uncommitted: 726.38 GB, provisioning: 154.4%	2014-02-25 12:53:28	40 sec	89.38% (+65.04%)
OK	fs_AFS_vicepf_SUN		OK - 0.1% used (0.96 of 999.8 GB), (levels at 95.00/97.00%), trend: 0.00B / 24 hours	2014-02-25 12:53:28	40 sec	0.10%
OK	fs_AFS_vicepg_MD3600i		OK - 89.5% used (999.95 of 1116.8 GB), (levels at 95.00/97.00%), trend: 0.00B / 24 hours, uncommitted: 921.02 GB, provisioning: 172.0%	2014-02-25 12:53:28	40 sec	89.54% (+82.47%)
OK	fs_AFS_vicepg_SUN		OK - 0.1% used (0.96 of 999.8 GB), (levels at 95.00/97.00%), trend: 0.00B / 24 hours	2014-02-25 12:53:28	40 sec	0.10%
OK	fs_Head01_DB_MD3000i		OK - 0.3% used (0.95 of 278.8 GB), (levels at 90.00/96.00%), trend: 0.00B / 24 hours	2014-02-25 12:53:28	40 sec	0.34%
OK	fs_Head02_DB_MD3000i		OK - 70.7% used (28.09 of 39.8 GB), (levels at 90.00/96.00%), trend: +18.04kB / 24 hours	2014-02-25 12:53:28	40 sec	70.66%
OK	fs_NFS_MSU		OK - 8.3% used (699.22 of 8377.4 GB), (levels at 90.00/96.00%), trend: +716.00MB / 24 hours	2014-02-25 12:53:28	40 sec	8.35%
OK	fs_UMFS02_NFS_MD3000i		OK - 25.9% used (144.31 of 557.8 GB), (levels at 90.00/96.00%), trend: 0.00B / 24 hours, uncommitted: 7.21 GB, provisioning: 27.2%	2014-02-25 12:53:28	40 sec	25.87% (+1.29%)
OK	fs_UMVM01_LocalVMwareR0		OK - 9.5% used (25.82 of 272.0 GB), (levels at 90.00/96.00%), trend: +1.58B / 24 hours, uncommitted: 0.25 GB, provisioning: 9.6%	2014-02-25 12:53:28	40 sec	9.49% (+0.09%)
OK	fs_UMVM01_OSDisk		OK - 6.5% used (8.78 of 134.8 GB), (levels at 90.00/96.00%), trend: -2.78MB / 24 hours	2014-02-25 12:53:28	40 sec	6.52%
OK	fs_UMVM02_LocalVMwareR0		OK - 9.0% used (24.55 of 272.0 GB), (levels at 90.00/96.00%), trend: +2.25MB / 24 hours, uncommitted: 20.48 GB, provisioning: 16.8%	2014-02-25 12:53:28	40 sec	9.03% (+7.53%)

Adding Hosts to Monitor in OMD



- ❄ Adding hosts to monitor is easy. Just add a line to the `~/etc/check_mk/conf.d/wato/hosts.mk` file OR add it via the WATO (Web Administration Toolkit) OR add a new file like `<hostname>.mk` somewhere in the `~/etc/check_mk` tree.

Content example:

```
all_hosts += [  
    'umvmgt|tcp|lan|um|prod|vmware|vcenter',  
]
```

Note the line starts with a hostname, then “tags” separated by ‘|’

- ❄ Next just “inventory” the host:

- ❑ `'cmk -I umvmgt'` # This auto-discovers services

- ❄ Reload CMK to get it in place: `'cmk -R'`

- ❄ Check your webinterface:

`http://<hostname>/<SITENAME>/check_mk/`

Service Discovery



- ❄ The 'check_mk' rule-based config component of OMD knows an extensive list (520) services to automatically find and configure monitoring for ('cmk -L' shows them)
- ❄ Requires either 'snmp' or a check_mk_agent installed...

```
OMD[atlas]:~/etc/check_mk/conf.d$ cmk -L
Available check types:
```

Name	plugin type	perf-data	in-vent.	service description
3ware_disks	tcp	no	yes	RAID 3ware disk %s
3ware_info	tcp	no	yes	RAID 3ware controller %s
3ware_units	tcp	no	yes	RAID 3ware unit %s
ad_replication	tcp	no	yes	AD Replication %s
aironet_clients	snmp	yes	yes	Average client signal %s
aironet_errors	snmp	yes	yes	MAC CRC errors radio %s
aix_lvm	tcp	no	yes	Logical Volume %s
aix_multipath	tcp	no	yes	Multipath %s
akcp_sensor_drycontact	snmp	no	yes	Device %s
akcp_sensor_humidity	snmp	yes	yes	Humidity Sensor - %s
akcp_sensor_temp	snmp	yes	yes	Temperature %s
alcatel_power	snmp	no	yes	Power Supply %s
apache_status	tcp	yes	yes	Apache %s Status
apc_aru_airflow	snmp	yes	yes	APC ARU Airflow
apc_aru_fans	snmp	yes	yes	APC ARU Fan Status
apc_aru_power	snmp	yes	yes	APC ARU Power Status
apc_aru_sysinfo	snmp	no	yes	APC ARU SysInfo
apc_aru_temps	snmp	yes	yes	APC ARU Temperatures

Tour URLs



❄ Dell OMSA monitoring:

http://omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dservicedesc%26service%3DDell%2520OMSA

❄ Hostgroups:

http://omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dhostgroups

❄ Servicegroups:

http://omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dsvvcgroups

❄ Hosts:

http://omd.aglt2.org/atlas/check_mk/index.py?start_url=%2FAtlas%2Fcheck_mk%2Fview.py%3Fview_name%3Dallhosts

Discussion/Questions



Questions or Comments?