



Enabling Grids for E-scienceE

# quattor

## Monitoring in QWG

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[www.eu-egee.org](http://www.eu-egee.org)



Information Society  
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- **High-level aim is to only describe monitoring once for each class of machines (WNs, web servers, ...)**
  - Include node-specific monitoring from machine type tpls
  - Generate as much as possible from existing info
- **Configuration also needed on server**
  - Use nlist with entries like this:
    - `escape("machine1.example.com"),`  
`nlist("type", "WN", "monitoring", "yes")`
  - Populate nlist using regexps
- **Support hierarchy**
  - Cluster aggregates similar nodes (e.g. WNs)
  - Super-cluster aggregates clusters (e.g. Non-grid)

- **“Nagios” Configuration Generator**
  - WLCG Grid Services Monitoring Working Group
  - Generates Nagios configuration for local and remote probes
    - Remote probes – SAM/ENOC NPM down collector results
  - gLite style meta packages egee-NAGIOS and egee-NRPE exist
  - YAIM module glite-yaim-nagios has been written
    - Configures Nagios to test your Site using NCG utilities
- **Template added to QWG for Nagios NCG services**
  - Currently adds services for SAM and NPM remote tests
  - Adds extra services to variables used by NCM Nagios component
- **To use:**
  - include {‘standard/monitoring/nagios/ncg\_services’}
  - Set variables...

- **NAGIOS\_SERVER\_HOSTNAME**
  - Hostname of Nagios monitoring server
- **SAM\_TESTS ?= nlist("CE", list("CE-host-cert-valid", "CE-sft-job",...), "SE", list("SRM-put",...));**
  - Service descriptions generated for all tests in list
  - Extra tests should be added to these lists,
  - default is all critical tests
- **SAM\_VOS ?= list("OPS")**
  - List of VOs for tests
  - Service added for each VO in list e.g.,
    - CE-sft-job-OPS
- **SAM\_ROOT\_URL ?= "https://lcg-sam.cern.ch:8443/sam/sam.py"**
  - Location of SAM server, default is EGEE server
- **NCG\_CELIST ?= list(CE\_HOST)**
  - List of CEs
- **NCG\_SELIST ?= list(SE\_HOST)**
  - List of SEs

- **/etc/nagios/services.cfg**

```
define service {
    service_description      CE-sft-job-OPS
    ...
    service_groups          remote, SAM, OPS
    ...
    check_command            ncg_check_passive
    ...
    host_name                gridgate.cs.tcd.ie
}
```

- **/etc/nagios/servicedependencies.cfg**

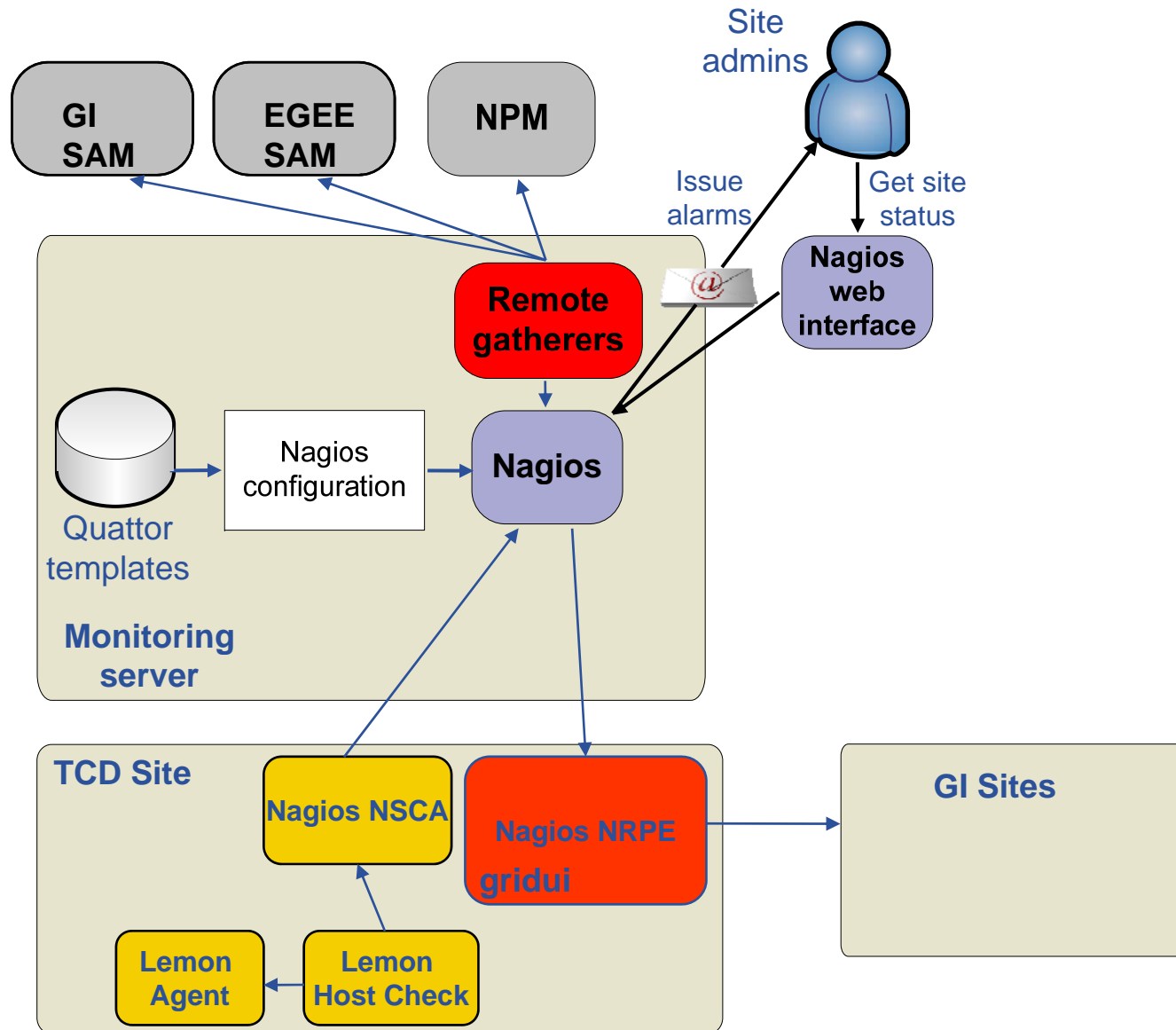
```
define servicedependency {
    service_description      SAM-Gather
    ...
    dependent_service_description  CE-sft-job-OPS
    ...
    host_name                cagraidsvr23.cs.tcd.ie
    dependent_host_name      gridgate.cs.tcd.ie
}
```

- **/etc/nagios/serviceextinfo.cfg**

```
define serviceextinfo {
    service_description      CE-sft-job-OPS
    notes_url                https://lcg-sam.cern.ch:8443/sam/sam.py?funct=TestResultLatest...
    host_name                gridgate.cs.tcd.ie
}
```

- **2 active services added**
  - SAM-Gather
  - NPM-Gather
- **Both use NCG plugins**
  - gather\_sam
  - gather\_npm
- **Need access to SAM programmatic interface**
  - Return test results as passive service check results
  - All services depend on these completing successfully

- **Lemon + Nagios host monitoring**
  - Nagios/Lemon quattor configured
    - Nagios => active network checks
    - Lemon => host checking via lemon metrics
  - Extra Nagios services:
    - Lemon
    - RLBackup
    - NCM
- **Lemon results fed into Nagios**
  - Cron executes lemon-host-check
  - Output sent to nagios via nsca
  - Exception results in Lemon service failure





**Nagios**

**General**

- Home
- Documentation

**Monitoring**

- Tactical Overview
- Service Detail
- Host Detail
- Hostgroup Overview
- Hostgroup Summary
- Hostgroup Grid
- Servicegroup Overview
- Servicegroup Summary
- Servicegroup Grid
- Status Map
- 3-D Status Map
- Service Problems
- Host Problems
- Network Outages

Show Host:

- Comments
- Downtime
- Process Info
- Performance Info
- Scheduling Queue

**Reporting**

- Trends
- Availability
- Alert Histogram
- Alert History
- Alert Summary
- Notifications
- Event Log

**Configuration**

- View Config

**Current Network Status**  
 Last Updated: Wed Oct 22 12:18:39 IST 2008  
 Updated every 90 seconds  
 Nagios® - [www.nagios.org](http://www.nagios.org)  
 Logged in as /C=IE/O=Grid-Ireland/OU=cs.tcd.ie/L=RA-TCD/CN=Stuart P. Kenny

- [View Status Overview For This Service Group](#)
- [View Status Summary For This Service Group](#)
- [View Service Status Grid For This Service Group](#)
- [View Service Status Detail For All Service Groups](#)

**Host Status Totals**

Up	Down	Unreachable	Pending
125	0	6	4
<b>All Problems</b>		<b>All Types</b>	
6		135	

**Service Status Totals**

Ok	Warning	Unknown	Critical	Pending
104	0	0	5	3
<b>All Problems</b>		<b>All Types</b>		
5		112		

### Service Status Details For Service Group 'LEMON'

Host	Service	Status	Last Check	Duration	Attempt	Status Information
<a href="#">cagraidsvr06.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	PENDING	N/A	1d 0h 28m 26s+	1/4	Service is not scheduled to be checked...
<a href="#">cagraidsvr10.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:09	19d 0h 48m 32s	1/4	No exceptions detected
<a href="#">cagraidsvr12.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:09	5d 21h 28m 30s	1/4	No exceptions detected
<a href="#">cagraidsvr16.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	CRITICAL	22-10-2008 12:15:03	0d 22h 18m 36s	4/4	255 exceptions detected ()
<a href="#">cagraidsvr17.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	CRITICAL	22-10-2008 12:15:14	1d 0h 13m 19s	4/4	1 exceptions detected (exception.swap_full)
<a href="#">cagraidsvr18.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:11	11d 8h 43m 22s	1/4	No exceptions detected
<a href="#">cagraidsvr19.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:10	0d 0h 53m 28s	1/4	No exceptions detected
<a href="#">cagraidsvr20.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:09	28d 22h 43m 37s	1/4	No exceptions detected
<a href="#">cagraidsvr23.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:08	6d 9h 28m 24s	1/4	No exceptions detected
<a href="#">gridgate.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	CRITICAL	22-10-2008 12:15:11	0d 0h 3m 28s	1/4	1 exceptions detected (exception.bdiislapd)
<a href="#">gridinstall.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	CRITICAL	22-10-2008 12:15:10	5d 23h 3m 31s	4/4	1 exceptions detected (exception.spma_error)
<a href="#">gridmon.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:10	9d 2h 18m 30s	1/4	No exceptions detected
<a href="#">gridmonbox.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:09	0d 1h 18m 30s	1/4	No exceptions detected
<a href="#">gridstore.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:10	0d 10h 13m 29s	1/4	No exceptions detected
<a href="#">gridui.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	CRITICAL	22-10-2008 12:15:18	1d 1h 43m 19s	4/4	1 exceptions detected (exception.portmap_wrong)
<a href="#">gridwebcom.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	PENDING	N/A	1d 0h 28m 26s+	1/4	Service is not scheduled to be checked...
<a href="#">wn001.grid.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:10	28d 22h 43m 38s	1/4	No exceptions detected
<a href="#">wn002.grid.cs.tcd.ie</a>	<a href="#">Lemon agent state</a>	OK	22-10-2008 12:15:10	28d 22h 43m 38s	1/4	No exceptions detected

Done cagraidsvr23.cs.tcd.ie **33 hosts unreachable** **13 unknown services** **8 critical services**