Guidelines for RODs for evaluation of nagios-based monitoring

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ver. 0.4

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1   Motivation

Regional Operators need to evaluate suitability of new nagios-based monitoring infrastructure for their daily work, and this should be done in a consistent way. This document describes the general rules for RODs, scope and proposes criteria on which we base acceptance. Our goal is to make sure that the tools and the operations support process is working without any disturbances after switching to new nagios-based monitoring infrastructure.

2   Scope of the exercise

RODs should focus on detecting and reporting discrepancies between results of **critical** tests. ROD should compare if there are differences between results in:

- SAM-based monitoring
- nagios-based monitoring (the one which is run from instances at CERN) .

The test is considered critical when it raises an alarm in dashboard. The current list of tests raising an alarm in SAM and nagios are listed in [2] and [3].

Please note that in current nagios setup at CERN the list of services raising critical tests is limited to: sRMv2, CE, and sBDII. Thus you will **NOT** notice alarms for MyProxy, LFC, MonBox, VOBOX (gsissh).

3   What is discrepancy?

During a period of, say four days, the SAM and Nagios monitoring should give a consistent view for all monitored services. Discrepancies caused by one off errors like incidentally failing tests are

allowed, provided that they do not occur significantly (say twice as often or more) more in Nagios than in SAM. Persistent discrepancies are not allowed. Note that since the frequency of Nagios tests may differ from the SAM tests, the frequency of the SAM tests is leading. Suppose SAM issues 48 tests for a service during 24 hours, this would mean one SAM test every half hour. So 4 failed nagios tests and one successful SAM test in one half hour would count as one discrepancy. A persistent discrepancy would be two or more consecutive discrepancies.

4 Tools to be used

Operators are using dashboards for their daily work. A consistent view of both dashboards is the major requirement. Currently we have SAM-based dashboard and nagios-based dashboard in place. They are available at:

- https://operations-portal.in2p3.fr/

- https://operations-portal.in2p3.fr/nagios

However for more detailed investigation we will use monitoring tools interfaces directly i.e.

- for SAM we will use

    ◦ SAM-based gridview

        ▪ http://gridview.cern.ch/GRIDVIEW/same_index.php

    ◦ SAM history

        ▪ https://lcg-sam.cern.ch:8443/sam/sam.py

        ▪ http://gridview.cern.ch/GRIDVIEW/same_index.php

- for nagios-based monitoring

    ◦ nagios web interface

        ▪ in particular availability views https://sam-ce-roc.cern.ch/nagios/ (replace your federation acronym inside this link, "ce" in the example)

    ◦ MyEGEE portal (optional)

        ▪ https://sam-ce-roc.cern.ch/myegee/about and select 'Resource Summary' and in the "Profile Selection" the 'ROC_CRITICAL' profile

RODs should examine problems at the level of individual services run on a node (in order to detect problems which could be masked by another instance of the same service being OK at the checking time while the other is actually failing) .

ROD does not have to analyze why the discrepancy is there if the case does not match these which were validated, see 5.1 below).

5 Procedure

1. Any discrepancy should be checked for being categorized as validated at:

https://forge.in2p3.fr/boards/8/topics/show/39.

2. Non-validated discrepancies should be reported to the ALL RODs discussion mailing list (project-eu-egee-sa1-cic-on-duty@cern.ch) for discussion and then will be forwarded (by Cyril) to OAT.

3. Validated discrepancies should be documented (by Marcin) at link from bullet 1 above.

Please note that there are some "known issues" with the nagios-based monitoring which are documented by CERN's nagios team at [4]. These may be a source of "validated discrepancies".

6   Timeline

RODs have 3 full days for testing starting from **Tuesday** 9.02.2010 14.00 CET till **Friday 12.02.2010, 12.00** CET where a report should be filled (contents of section 7 below) and sent to ALL RODs mailing list (project-eu-egee-sa1-cic-on-duty@cern.ch). Then the COD leader will evaluate reports and prepare conclusions to SA1 coordination meeting on 16.02.2010.

7   Report

These are results from the evaluation of nagios-based monitoring done by federation {FEDERATION_NAME}

7.1 Dashboard

Federation "to be filled"	Validation (OK/NOK)	Comments (if blocking item)	Date of check
Alarms Handling: Open, mask, close			
Tickets Handling: Open, update			
Escalation process			
Handover report			
Metrics			

7.2 Monitoring infrastructure

Federation "to be filled"	Validation (OK/NOK)	Comments (if blocking item)	Date of check
Discrepancy level			
Usability of nagios-based monitroring infrastructure for ROD work			

7.3 Other comments

FILL_HERE_IF_ANY

8 References

1. Nagios vs. SAM discrepancy for T1 sites:
   https://twiki.cern.ch/twiki/bin/view/EGEE/SAMNagiosComp

2. Services raising critical alarm in SAM
   https://twiki.cern.ch/twiki/bin/view/LCG/SAMCriticalTestsForCODs

3. Services raising critical alarm in nagios
   https://twiki.cern.ch/twiki/bin/view/LCG/MDDBProfilesSAM#ROC_SAM_critical

4. Summary of ROC nagioses evaluation (CERN instances)

https://twiki.cern.ch/twiki/bin/view/LCG/SAMNagiosEvaluationSummary