

# WLCG SITE NAGIOS PLUGIN

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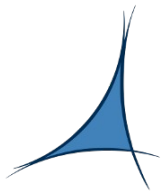
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# Introduction

- SAM tests are used to check the Site Availability/Reliability
- Since Jan. 2014, these tests are used to compare the WLCG targets, for each of the experiments
- It is a very important tool to know the status of every experiment tests on every site, at any time



# Current Nagios Plugin at PIC

- Bash script downloads nagios pages for each individual check
- After parsing it, it get status of the given check
- It sends status to local Nagios system

## SAM Nagios

```

Current Status: OK (for 5d 3h 53m 58s)
Status Information:
td603.pic.es: OK: Success
GLExec_LOCATION=/usr
gLExec found at /usr/sbin/glexec
Looking for id in /usr/lib64/qt-3.3/bin
Looking for id in /bin
Looking for id in /usr/bin
Payload set to /usr/bin/id -a
uid=20009(atpilot009) gid=50057(atpilot) groups=50057(atpilot),1307(atlas)

Performance Data:
Current Attempt: 1/2 (HARD state)
Last Check Time: 04-08-2014 15:42:04
Check Type: PASSIVE
Check Latency / Duration: N/A / 0.000 seconds
Next Scheduled Check: N/A
Last State Change: 04-03-2014 11:51:27
Last Notification: N/A (notification 0)
Is This Service Flapping? N/A
In Scheduled Downtime? NO
Last Update: 04-08-2014 15:45:16 (0d 0h 0m 9s ago)

Active Checks: DISABLED
Passive Checks: ENABLED
Obsessing: ENABLED
Notifications: ENABLED
Event Handler: ENABLED
Flap Detection: DISABLED

```

## Nagios HTML Parsing script

```

...
...
# Wget check URL
/usr/bin/wget --timeout=5 -q --no-
check-certificate
--certificate=$certificate --private-
key=$key --ca-directory=/etc/grid-
security/certificates/ "https://
$1/nagios/cgi-bin/extinfo.cgi?
type=2&host=$2&service=$3" -O /tmp/SAM.
$date.$nagios.$host.$checkn
...
...

```

## PIC Nagios

```

OK (for 5d 3h 10m 2s)
OK - 5 plugins checked, 5 ok
[ 1] ce07_cms_wnglexec Status td657.pic.es: OK: Success Information: Ran at 2014-04-08 11:29:32
[ 2] ce08_cms_wnglexec Status td648.pic.es: OK: Information: Success
[ 3] ce09_cms_wnglexec Status td615.pic.es: OK: Success Information: Ran at 2014-04-08 11:29:32
[ 4] ce10_cms_wnglexec Status td533.pic.es: OK: Success Information: Ran at 2014-04-08 11:29:34
[ 5] ce11_cms_wnglexec Status td645.pic.es: OK: Success Information: Ran at 2014-04-08 11:29:32
check_multi::check_multi::plugins=5 time=8.000000
1/3 (HARD state)
04-08-2014 15:38:45
ACTIVE
0.166 / 8.208 seconds
04-08-2014 15:53:45
04-03-2014 12:38:45
N/A (notification 0)
NO (0.00% state change)
NO
04-08-2014 15:48:46 (0d 0h 0m 1s ago)
None

```

# Weaknesses

- Static
  - Every added or removed check requires an action (to add a new service check to local nagios system)
- It needs valid certificates
- Made by PIC for PIC
  - It is not generic

# New Nagios Plugin

- Bash script downloads JSON files for each of the experiment's SAM (SUM) dashboard
- After parsing it, it get status of each individual check in a given profile
- It sends status to local Nagios system

Link to data

Dashboard JSON

```
{
  "data": {
    "siteName": [
      "T1_ES_PIC"
    ],
    "results": [
      {
        "sitename": "T1_ES_PIC",
        "flavours": [
          {
            "hosts": [
              {
                "metric": [
                  {
                    "status": "OK",
                    "timestamp": "2014-04-09T09:43:15Z",
                    "age": 0,
                    "Abbr": 2,
                    "metric_name": "emi.cream.CREAMCE-JobSubmit"
                  }
                ]
              }
            ]
          }
        ]
      }
    ]
  }
}
```

Nagios Plugins LCG SAM

```
...
...
# Get JSON content using input
args
json=$(wget -qO - "http://dashb-
$vo-
sum.cern.ch/dashboard/request.py/1
atestresultssmry-sumjson?
profile=$profile&flavour=$flavour&
site=$site")
...
```

PIC Nagios

```
WARNING (for 0d 23h 55m 53s)
CREAM-CE: WARNING

HOSTS
=====
CREAM-CE
ce07.pic.es: WARNING
ce08.pic.es: WARNING
ce09.pic.es: WARNING
ce10.pic.es: WARNING
ce11.pic.es: WARNING

PROBLEMS
=====
CREAM-CE - ce07.pic.es - org.cms.WN-xrootd-access: W
CREAM-CE - ce08.pic.es - org.cms.WN-xrootd-access: W
CREAM-CE - ce09.pic.es - org.cms.WN-xrootd-access: W
CREAM-CE - ce10.pic.es - org.cms.WN-xrootd-access: W
CREAM-CE - ce11.pic.es - org.cms.WN-xrootd-access: W
```

# Strengths

- Dynamic and easy to use
  - If there is a check removed from the list, it won't require any action to work correctly
- No need for authentication
- Made by PIC for all of the WLCG sites
  - Generic: It works for all experiments, for all sites
- The only requirement is jq package (JSON processor) in the machine where the plugin is installed
  - <http://stedolan.github.io/jq/>

# Options

- For the moment we have a list of four kind of arguments
- Mandatory *(Only one can be specified)*
  - VO: Experiment to check
  - Profile: Type of criticality to check
  - Site: Name of the site for this VO
- Optional *(It can be specified one, multiple, or none)*
  - Flavour: Host type to check  
*(CREAM-CE, SRMv2, etc)*



# Usage

```

yum install nagios-plugins-lcgsam
/usr/lib64/nagios/plugins/check_lcgsam
    -v cms \
    -p CMS_CRITICAL_FULL \
    -s T1_ES_PIC \
    -f CREAM-CE
  
```

Current Status: **WARNING** (for 0d 23h 55m 53s)

Status Information:

CREAM-CE: WARNING

HOSTS  
=====

CREAM-CE  
ce07.pic.es: WARNING  
ce08.pic.es: WARNING  
ce09.pic.es: WARNING  
ce10.pic.es: WARNING  
ce11.pic.es: WARNING

PROBLEMS  
=====

CREAM-CE - ce07.pic.es	org.cms.WN-xrootd-access: W
CREAM-CE - ce08.pic.es	org.cms.WN-xrootd-access: W
CREAM-CE - ce09.pic.es	org.cms.WN-xrootd-access: W
CREAM-CE - ce10.pic.es	org.cms.WN-xrootd-access: W
CREAM-CE - ce11.pic.es	org.cms.WN-xrootd-access: W

Overall status

Status of every specific host of this flavour/s

Link/s to the problem/s

Host/s with problem/s

## Nagios Plugin LCG SAM

Service Availability Monitoring for LCG sites



## Nagios Plugin for LCG SAM

### Overview

This is a Nagios plugin to check Service Availability Monitoring required test meant to be used by the sites forming [ALICE](#), [ATLAS](#), [CMS](#) and [LHCb](#) experiments.

This check uses the dashboard data for these experiments based on the Nagios Site Usability tests (SUM).

### Authors

Mindcrafted by Pablo Saiz ([CERN](#)) and Pepe Flix ([PIC](#)). Handcrafted by Jordi Casals ([PIC](#)).

<http://jcasals.github.io/nagios-plugins-lcg-sam>

# Calling for feedback

We developed this plugin to improve our current check, but we did it to be used on all WLCG sites for ALICE, ATLAS, CMS and LHCb experiments.

We would like to know your opinion and suggestions to improve the new system.

Please send feedback to PIC staff

[jcasals@pic.es](mailto:jcasals@pic.es) - [jflix@pic.es](mailto:jflix@pic.es)