

Patricia Méndez Lorenzo (CERN, IT/GS-EIS) ALICE T1/T2 tutorial for site admins

### Outlook



- SAM and FCR: General Implementation
- SAM for ALICE: Requirements and Implementation
- SAM and MonaLisa
- Alarm System
- Summary

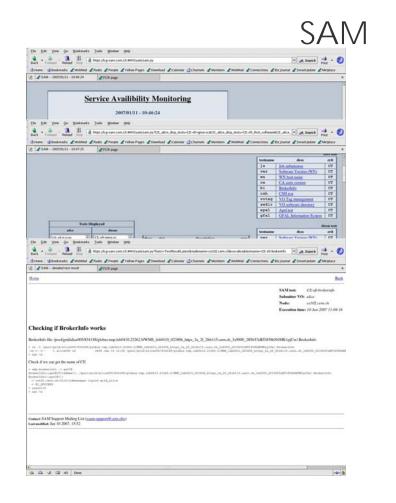
## SAM and FCR infrastructure



- SAM: Service Availability Monitoring
  - Grid Services Monitoring System updated each Xh
  - Publication of the status of each Grid service based in
    - Standard tests defined by services team
    - Special test suites defined by VOs
  - Filtered by VOs and visible for all VO members

- FCR: Freedom of Choice for Resources
  - Access to the services tests
  - Availability to "black" or "white" sites that should appear in the VO BDII
  - Access ensured to certain persons only
  - Definition of Critical Tests
    - VO based decision

### SAM and FCR interfaces



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## SAM and FCR for ALICE



#### SAM

- Used as monitoring system to check VOBOXES and LCG-CE
  - Specific ALICE tests for VOBOXES while standard ops tests for the LCG-CE
  - For the moment ONLY LCG-CE is considered in ALICE a critical sensor for availability calculation purposes
- We have established a new infrastructure onto SAM to fulfilled ALICE requirements

#### FCR

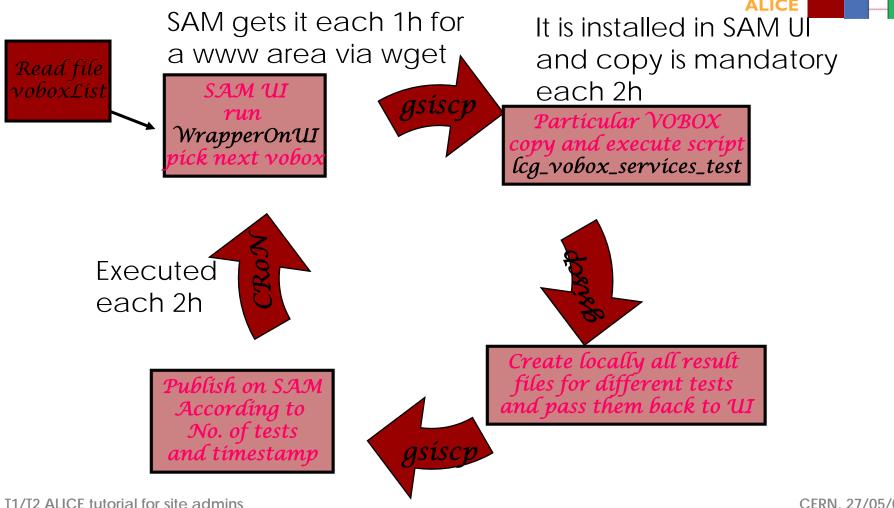
- Not used to black list any site
  - ALICE has already its own mechanism
- Set up for LCG-CEs and VOBOXES
  - For LCG-CE and VOBOXES we use it to define the list of Critical Tests

# ALICE implementation in SAM



- Implementation for VOBOXES
  - SAM developers implemented special sensors for VOBOXES
- Complete freedom; ALICE decides:
  - The test suite to run in VOBOXES
  - The VOBOXES to check
  - The Critical Tests set
  - All these parameters can be changed at any moment
- Implementation and visualization in MonaLisa
  - Interface SAM-MonaLisa
- Alarm system
  - Direct notification of problems to the sites

### SAM implementation for VOBOXES



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## Registration of VOBOXES in SAM DB

- VOBOXES have to be registered in SAM DB in order to be monitored. This excludes:
  - Native Alien Sites
  - Several sites which have not yet been registered in the GOCDB
- SAM developers implemented a registration procedure which ensures the freedom required by ALICE
  - ALICE creates the list of VOBOXES and put it in a www area
  - This list can be changed as much as needed
  - Each 1h a tool read that file and register new entries
  - Also deletes old entries not monitored for 1 week

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### The control wrapper



Installed in the SAM UI

- Set of tools to manage the control of the test suite execution
  - Take the VOBOXES names from the list included in the www area
  - Launch the test suite to each site
  - Collect the results back
  - Publish the results in SAM
  - Executed each 2h as a cron
  - Ensure timeouts in the case a VOBOX is not accessible
  - All operations are grid-certificate based
    - The user proxy is also refreshed by the SAM cron

### The test suite

Included in *Icg\_sam\_vobox\_test placed* in SAM UI



- This script can be modified at any moment
  - the control wrapper copies it each time to all VOBOXES and also executes it
- Collects the results locally following a SAM readable infrastructure

testName: VOBOX-gsiscp

testAbbr: gsc

testTitle: Status of the gsiscp service

envName: VOBOX-12345

nodename: vobox.ct.infn.it

testname: VOBOX-gsiscp

envName: VOBOX-12345

voname: alice

status: 10 (10="OK")

detaileddata: ...

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Definition file

Env file

Results file

10: OK

- 40: Warning
- 50: Error

### List of tests



- VOBOX: Tests checking proxies issues
  - Proxy renewal service of the VOBOX
  - User proxy registration
  - VOBOX registration within the MYPROXY server
  - Proxy of the machine
  - Duration of the delegated proxy
  - Access to the software area

### LCG-CE:

- Access to the software area
- Job submissions (via specific SAM WMS placed at CERN)



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AM page

Interfaced with MonaLisa, SAM results can be seen from the native ALICE system

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| ALICE Repository                | SAM Tests         |                             |                         |                |                              |                |               |                            |           |                   |  |
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Visible also from the generic UI in Dashboard (Pablo's talk)

### The alarm system



- The SAM developers have created a tool able to send emails and SMS to the contacts persons at each site in the case that the CT fails
- We have installed it and tested from the SAM UI at CERN: and it works (also with phones abroad)
- Its implementation is trivial: In the cron job which launch the current SAM tests suite
- It needs just a config file that contains:
  - Name of VOBOX Contact person mail Phone

### **Current Status**

- SAM infrastructure for ALICE was created together with Vikas Singhal and the SAM experts few years ago
- It needs immediately an upgrade in terms of infrastructure and tests
  - In order to ensure a good level of monitoring which can be trustable by the site admins
  - It will be in place before the real data taking this year and site admins will follow the upgrades through the ALICE TF lists and meetings
  - Creating together with the Dashboard team an infrastructure to provide information of jobs submitted via CREAM-CE

