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WMS 3.1 Pilot Home Page

- Start Date: Fri 13 Feb 2009
 - End Date: Thu 26 Feb 2009
 - Description: Pilot Service of gLite WMS 3.1 @ CERN, SCAI CNAF
 - Coordinator: Nick Thackray
 - Contact e-mail: na
 - Status: Closed
-

Description

The pilot is based on two main streams of activity.

The first stream is hosted at CNAF and SCAI. It has the goal to validate the version shipped with gLite3.1 PPS Update43. This phase is not supposed to last very long and will finish ideally few days later the release of the corresponding software to production

The second stream is hosted at CERN-PROD . One or more WMSs based on the version what is released with gLite 3.1 PPS are run in support to the Alice production system. The goal is to debug the "performance decay" observed by that VO at CERN during last Christmas' break

Use cases

In both streams the application model is the same: the newly installed services are deployed in production and kept under observation without any special solicitation from the VOs.

Objective and metrics

Planning

Constraints and milestones

Initial plan

Technical documentation

Installation Documentation

CERN (using quattor)

OTHER SITES (using yum)

The version currently used in the pilot is the one distributed with gLite3.1 PPS Update 43 (see release notes)
Plus the following patches:

- PATCH:2802 [↗](#)
 - ◆ Repository URL:
<http://grid-deployment.web.cern.ch/grid-deployment/glite/cert/3.1/patches/2802/> [↗](#)

Configuration Instructions

Pilot Layout

List of available 3.1 WMSs (+ supported VOs)

CERN

Outside CERN

- wms002.cnaf.infn.it cms
- wms003.cnaf.infn.it cms
- wms005.cnaf.infn.it cms
- wms011.cnaf.infn.it cms
- wms012.cnaf.infn.it cms
- wms014.cnaf.infn.it cms
- wms015.cnaf.infn.it cms
- wms017.cnaf.infn.it cms

- egee-rb-09.cnaf.infn.it alice

- glite-wms2.scai.fraunhofer.de ops, dteam, dech, alice, cms

Tasks and actions:

Actions for SA1 are tracked via the [TASK:9038](#) available from the [PPS task tracker](#)

Tasks for other participants are tracked here

Assigned to	Due date	Description	State	Closed	Notify
Main.CERN_PPS	2007-03-05	Example Action Item		2008-04-16 AntonioRetico	edit

Results

Evaluation by CNAF service operators

"WMS 3.1.100 (patch 1841+ patch2562) fixes a lot of bugs present in the previous releases. Many improvements in stability and reliability are now achieved. In terms of performance, for bulk submission with bulk match making enabled this version of the WMS (and LB) can handle the same number of jobs as before. It was tested at a constant rate of 30 kjob/day for 5 days on proper hardware (8/16 GB ram and good disks, separate servers for WMS and LB).

Each CMS pilot WMSs at CNAF in the last two months received a number of jobs well below that tested threshold (up to 10-15 kjob/day) and no backlog were ever observed.

Very different performance can be reached in case of single jobs submission (used for example in the ALICE and CDF dedicated WMSs).

Backlogs, in particular in input to the WM component, were observed in case of sustained rate greater than 0.1Hz.

The WMS 3.1.100 can alleviate this issue, giving the possibility to enable the so called pre-filtered ISM (the information supermarket - a sort of local cache of the BDII). Only the CE queues that support some defined VOs (those enabled in the WMS) are inserted in the ISM, so that the matchmaking is performed against a smaller number of entries, improving the overall performance of the WMS.

In one of the ALICE dedicated pilot WMS at CNAF the pre-filtered ISM was enabled and no backlog were formed since then, but the rate was never above 5kjob/day, with peaks of 0.18Hz. However the same daily number of jobs on another pilot ALICE WMS with no filtered ISM leads to a small backlog in input the WM component when a rate of 0.15HZ was sustained for few hours.

Next WMS release, the WMS 3.2, improving the parallelism in the WM component will also improve the MM performance even without the pre-filtered ISM."

Feedback from the experiments

Comments and issues from operations

Recommendation for Deployment in production

History

Fri 13 Feb 2009 : Pilot Home page created

Tue 17 Feb 2009 : list of rpms provided at CERN

Tue 17 Feb 2009 : installation requested to external sites

Fri 20 Feb 2009 : Installation at SCAI completed

Fri 20 Feb 2009 : Application of PATCH:2802 [↗](#) to info provider requested

Thu 26 Feb 2009: WMS 3.1 released to production

This topic: LCG > PpsPilotWMS31

Topic revision: r8 - 2009-03-04 - AntonioRetico



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