

Metacat - Bug #2175

Metacat Performance: Upgrading hardware setup

09/05/2005 11:37 AM - Saurabh Garg

Status:	Resolved	Start date:	09/05/2005
Priority:	Normal	Due date:	
Assignee:	Jing Tao	% Done:	0%
Category:	metacat	Estimated time:	0.00 hour
Target version:	1.8	Spent time:	0.00 hour
Bugzilla-Id:	2175		

Description

Following things have to be done in regards to the upgrading of hardware setup

-> Have to install a new ESA metacat server with Postgres as the db.

-> Upgrade KNB metacat server to ecoinfo2 with Postgres on it.

-> check docs on ecoinfo == docs on ecoinfo2 (This includes the revisions and the deleted documents. Bug# 2136)

(The above are from the ESA tasklist)

Notes from Matt's email regarding Metacat and ldap setup:

Basically, we want LDAP and metacat to be a failsafe system, which means eliminating single points of failure. Our proposed solution is to basically make both NCEAS and LTER house identical copies of all information and services and act as failover points for each other. The setup is slightly different for ldap and metacat so I'll talk about both of them separately.

LDAP

ldap1.ecoinformatics.org resides at NCEAS
master for the NCEAS, UCNRS, and some other trees
slave for LTER trees
slave for KNP tree, PISCO tree, etc
ldap2.ecoinformatics.org resides at LTER
master for LTER
slave for other domains

Matt and James agreed to work with Sid, Duane, and Jing to get this replication and referral system working.

ldap.ecoinformatics.org

Uses DNS round-robin to point at both of those servers and redirect clients to one or the other in a load-balanced and failover way. For this to work we need to make sure that DNS caching won't delay failover to the other host in event of a net failure. Colby and Mark will experiment with various DNS failover/load balancing techniques and propose a solution to this group.

Metacat

Basically, same setup as now, except we need to install identical set of skins and default skin on both the NCEAS and LTER metacats. The NCEAS metacat will be renamed 'knb1.ecoinformatics.org' and the LTER metacat will become 'knb2.ecoinformatics.org'. Both of these will be used in a round robin (as for ldap) based on the address knb.ecoinformatics.org which will be modified to resolve to both the knb1 and knb2 hosts (and will need to be moved in a way that doesn't cause downtime).

In normal operation, requests for access will be distributed between both hosts. In the event of a failure, DNS will redirect hosts to the alternate

address that remains accessible. During a failure, documents with a home server on the inaccessible host will not be editable (because a lock for the document will be inaccessible). Otherwise, all other functions will be present.

This will mean that the NCEAS and LTER servers will be treated as a single integrated system, and upgrades and changes will need to be synchronized carefully between them. Also, access logs will be split between them because requests will be regularly routed to both servers.

Related issues:

Blocked by Metacat - Bug #1879: Metacat Performance: Summary

New

01/18/2005

History

#1 - 01/19/2006 11:24 AM - Saurabh Garg

Retargeting this for release 1.7 as this is not related 1.6 release and colby is in the middle of doing all the changes required.

#2 - 01/19/2006 11:43 AM - Saurabh Garg

The new setup should have TLS between metacat and ldap. If there is a problem in that, then bug#468 should be reopened.

#3 - 08/02/2006 10:08 AM - Saurabh Garg

In the Metacat meeting on 27th July, Will pointed out that the configuration of having two metacat servers as failovers of each other could be a problem as we do not know how to handle sessions. A client might start a session with the first server and then the next request from the client might be forwarded to the other server. In this scenario the request sent to second server will fail. Hence we will have to figure out a way of transferring sessions between servers.

#4 - 11/09/2007 04:06 PM - Jing Tao

Move to release 1.7.1

#5 - 03/27/2013 02:19 PM - Redmine Admin

Original Bugzilla ID was 2175