

Software Arch 6/23/2011

Attending: Ananthan (recorder), Beard, Geng, Hoover, Mills (Chair), Nakagama, Purger, Triggs, Yu

Agenda

1) R5.2 installation post-mortem and lingering issues (All)

- Existing warnings/errors on production system
- Patches needed
- Performance issues
- Lessons learned from release
- Other topics and items

2) Summer initiatives (All)

- XML-1 datastreams
- Handle server upgrade
- Thumbnails for manuscripts
- New storage system and servers installation
- Read-only/cold standby system

Updates

Chad and Kalaivani will be on vacation tomorrow through July 4th. Chad talked about the VMC project. Since the analytic tool is not installed on production, Chad has copied and configured the tool to get metadata from the production server but use the FLV datastream on the local file system on the development server. There will be a mixing of dev and production for the time being. They want to have 100 videos in total by the fall.

1. R5.2 installation post-mortem and lingering issues

Dave reported a few lingering warnings from. Jeffery will give Dave and Sho a list of book disseminator scripts that need to be removed. Dave will bundle up the error logs so that we can examine them on the development machine.

There are a few patches to address some of the issues uncovered in WMS and Faculty Deposit Module on the production server. We would like to do it in an orderly way if possible. The time frame will be tricky though. Yang leaves a week after the 4th, so we may want to do it the week after the 4th. The WMS patch could be pushed out today if needed, but other ones may take longer. We will try to push out the WMS patch today and the others after the 4th.

Chad is still working on the performance issue.

Tibor and Chad will send an email to RUL about the new release.

Tibor strongly recommends updating the software development principles. The process of new features for the next release should be codified in a way that will protect us from last minute "requirements". It should lead to smaller releases, quicker roll outs, etc. Unifying the platforms will help things.

R5.2 performance issues: Right now we use the root disk for almost everything. Dave has turned on binary logging and has been monitoring disk performance and iostats. Dave may want to try using a different disk for certain processes. We may want to analyze the log files to see if we can determine what is causing the writes to disk. We will move to the aliases on all the environments. Sho will turn off directory listings on lefty64.

Chad reported that the brief record display accesses two datastreams typically. He is rewriting the Get API to address performance issues.

Lessons learned:

- Separate software bundles
- Use aliases on all environment (rucore-dev, rucore-stage(?), rucore)
- Remove hardcoded reference in all code
- Deliver clean and clear README file

2) Summer initiatives

Tibor talked about the RFP for storage. All the purchases have been delivered by Monday -- Isilon mass storage system with 42 TBs expandable to 200 TBs. It will communicate with three servers--one dev server, one staging server, and one production server. TSB switches are being upgraded. TSB switches will have 10 times their current speed. The connectivity downtime will be affected only a few minutes. LT05 tape library will be attached to the staging server. We are not sure when this will be put into actual production. Isilon rep will come out in later July. Once set up, we will be able to decide about transferring the repository.

Dave talked about creating a read-only standby machine that could take over if necessary. Dave suggested that we might want to consider using a machine like the one we used that could be portable in case the TSB network went down. The read-only system will be used for planned and unplanned system maintenance. "Offsite mirroring" will be investigated to address network failure.

We need to define what different downtime scenarios. Tibor thinks we could use the SCC server rooms for standbys and build them here. Dave would like to get the staging server set up with real data before the Isilon fellow comes out in July. We may try to get everything working by Labor Day.

Chad will discuss the rest of the items with Ron and bring it back to the group.

Next meeting will be on July 7.