Repository Developmepnt and Testing Servers

There will be 2 Repository servers devoted to development

rep-devel2   is the name of the server where development will take place
rep-devel   is the name of the server where testing will take place.

Currently we are in a position where naming conventions of service URLs are opposite of what they need to be. This document and accompanying spreadsheet attempts to explain what is currently in use and the changes needed to make the switch happen.

One of the other goals envisioned is the elimination of some old unused directories on the "current development machine" and to try to align configuration paths and URLs between all Repository machines so that software delivery between servers becomes easier.

Server Names and Service URLs
The server name is given to the server when it is installed
The service URLs are the ones that are defined in the Apache Configuration and are used to access the website.
They do not have to be the same (and sometimes it would be better if they were not) but development of services can come before the service naming convention has been determined.

Our current naming scheme for the Repository servers has been:
  Production Repository   rep-prod.libraries.rutgers.edu
  Staging Repository   rep-staging.libraries.rutgers.edu
  Development Repository rep-devel.libraries.rutgers.edu
 When the newest one was asked for it was initially called
   rep-test.libraries.rutgers .edu then changed to rep- temp.libraries.rutgers.edu

Since after setup it was decided that "Testing" would take place on the server named rep-devel.libraries.rutgers.edu (the current one) and "Development" would take place on the new server named rep-test.libraries.rutgers.edu (or rep-temp) it led to a conflict.

To alleviate this we will cease using rep-test.libraries.rutgers.edu (or rep-temp) as server names and we will change the new server name to rep-devel2.libraries.rutgers.edu

Service URLs

While the spreadsheet goes into more detail we basically have two sets of service URLs. For Production the first set uses mss3.libraries.rutgers.edu with an Apache DocumentRoot of /home/httpd/html   which has symlinks for individual services into a /home/RS_## directory while the second set uses rucore.libraries.rutgers.edu with an Apache DocumentRoot of /home/httpd/html/rucore

For the purposes of the Development servers we have the following:

The new server with the first set using rep-temp.libraries.rutgers.edu with an Apache DocumentRoot of /home/httpd/html which has symlinks for individual services into /mellon/htdocs while the second one uses rucore-temp.libraries.rutgers.edu with and Apache DocumentRoot of /home/httpd/html/rucore

These will be changed to use the service URLs of rep-dev.libraries.rutgers.edu and rucore-dev.libraries.rutgers.edu respectively and DocumentRoot will be changed to /mellon/htdocs and /mellon/htdocs/rucore respectively. The use of the rep-temp.libraries.rutgers.edu and rucore-temp.libraries.rutgers.edu as service URLs will be retired by blocking access and removing the names from DNS.

The current development server with the first set using rep-devel.libraries.rutgers.edu with an Apache DocumentRoot of /mellon/htdocs while the second one uses rucore-devel.libraries.rutgers.edu with an Apache DocumentRoot of /mellon/htdocs/rucore

These will be changed to use the service URLs of rep-test.libraries.rutgers.edu and rucore-test.libraries.rutgers.edu   respectively
and the use of rep-devel.libraries.rutgers.edu and rucore-devel.libraries.rutgers.edu as service URLs will be retired by blocking access in Apache and/or removing them from DNS. rep-devel.libraries.rutgers.edu will still be used as the server name and stay registered in DNS

On the current development server the /home/httpd/html directory was created so that it could be used to mimic what rep-prod and what rep-staging use as a DocumentRoot. On this server there are other files and directories in /mellon/htdocs that need to be reviewed to see if they need to be represented in the new DocumentRoot.

Shibboleth and sp-key.pem and sp-cert.pem

The Shibboleth URL for the new server is set at
http://rep-temp.libraries.rutgers.edu/rucore/account/shib/
However the current keys in /etc/shibboleth sp-key.pem and sp-cert.pem
are for rep-test.libraries.rutgers.edu
So right now this is why a Shibboleth URL of rep-test.libraries.rutgers.edu
will work for this server, but not one of rep-temp.lbraries.rutgers.edu

We are changing the current rep-temp server name to rep-devel2 and we are going to use a Shibboleth service URL of https://rucore-dev.libraries.rutgers.edu/rucore/account/shib
For this I will need to generate new sp-key.pem and sp-cert.pem files for rucore-dev.libraries.rutgers.edu, send them to be added to the Shibboleth identity provider, add them into the local /etc/shibboleth/shibboleth2.xml file, and restart shibd.

The Shibboleth URL for the current development server is set at
 https://rep-devel.libraries.rutgers.edu/rucore/account/shib/
and matches the /etc/shibboleth/sp-key.pem and sp-cert.pem files.   So it works properly.

We are not changing the rep-devel server name but we are changing the service URL used by Shibboleth. It is going to use https://rucore-test.libraries.rutgers.edu/account/shib
For this I will need to generate new sp-key.pem and sp-cert.pem files for rucore-test.libraries.rutgers.edu, send them to be added to the Shibboleth identity provider, add them into the local /etc/shibboleth/shibboleth2.xml file, and restart shibd.

Note: Up until this point the only Shibboleth URLs that have worked properly are the ones that were generated based on server names that are related to the keys we have been sending to the Identity provider. This is the first time we will be sending URLs that are DNS aliases that point to the server name. As such it may take some experimentation to be able to get the new Shibboleth service URLs working properly.

Software configur*ation* changes

Server Name changes on current rep-temp DH
Reconfigure postfix to use new server name DH
Apache configuration changes for service URL changes   DH
Apache configuration changes for DocumentRoot paths   DH
Shibboleth reconfiguration DH

dlr/EDIT and /mellon/includes/incs.*   JT
cgi-bin/solr cgi-bin/dlr   JT
dlr/EDIT/notifications   JG
stats JG
rufd   JG
dwms_config, aa_config   YY
rucore/account   YY/CM
rucore configs   CM
portal configurations CM
….

Developers will also have to think if the databases their code uses contains any server name or service URL that is being changed or phased out and make the appropriate changes there as well.

DNS changes required
New
rep-devel2.libraries.rutgers.edu -> 128.6.218.97
rep-dev.libraries.rutgers.edu DNS CNAME alias -> rep-devel2.libraries.rutgers.edu
rucore-dev.libraries.rutgers.edu DNS CNAME alias -> rep-devel2.libraries.rutgers.edu

Changes
rep-test.libraries.rutgers.edu from   -> 128.6.218.97
   to DNS CNAME alias -> rep-devel.libraries.rutgers.edu   128.6.218.101
rucore-test.libraries.rutgers.edu from DNS CNAME rep-test.libraries.rutgers.edu
   to DNS CNAME alias -> rep-devel.libraries.rutgers.edu 128.6.218.101

Deletions
rep-temp.libraries.rutgers.edu
rucore-temp.libraries.rutgers.edu
rucore-devel.libraries.rutgers.edu
rucore2-devel.libraries.rutgers.edu

When work will be done

Do we need a two week bake period for 7.5.2 ? I don't think so. - NO
We need to make sure everyone understands and agrees to the plan outlined here.
  Signoff by all developers Monday 2/16
Both the current rep-temp and rep-devel will be out of play until work for both is complete
  Once agreed upon DNS requests will be sent to Ed Smith (1 day Mon 2/16)
  Work by sysadmin will start on Mon 2/16 pm or Tue 2/17 am.
  Once sysadmin is done developers can start their parts Tue 2/17 pm – Wed 2/18 pm
Shibboleth work could take some extra time as it requires external intervention
  Once DNS entries have been made email will be sent to the Shib Identity Provider 2/16
  It shouldn't hold up the rest of the work from starting.
Should external testers be used? Wed 2/18 - Thu 2/19
So hopefully by Thurs 2/18 pm - 2/19 we will be done.

This is being done now so that RS 7.6 will be able to be developed on the new development server (rep-devel2.libraries.rutgers.edu) and then packaged and delivered for installation on the test server (rep-devel.libraries.rutgers.edu)

We will need to discuss how this happens sometime before the packaging and/or delivery and setup of RS 7.6.2 is started.