January 25 2013 Technical Working Group Call

Attendees

Jimmy Vuccolo (Penn State)

Michael Gettes

Arnie Miles

Jim Leous

Nate Klingenstein

Khalil

Ann West

Agenda

Agenda:

1. Project manager

2. Unicon

3. Report from Nate and Jimmy regarding CPR

4. Pending VM deployment

5. Architectural diagram for the pilot

6.Other

Discussion Items

Announced Tim Cameron will be starting on Monday as Project Manager. Unicon is starting next week as well to provide technical support. Jimmy reported on CPR. He has it running locally interacting with OpenLDAP. He just got a new revision of the user interface up and running. Nate found bugs, trace results forwarded to development group. Also did initial load testing using jmeter, which allows load testing of the performance of the services. Numbers aren't all that spectacular because of the equipment it is on. Message queue technology is Active MQ. Using standard JNDI calls, nothing OpenLDAP specific.

We are considering 5 LDAP servers and 5 IdP's. Possibly a distinct LDAP cluster and IdP cluster, possibly everything running on every machine. 2 "trial" machines at first for configuration and load testing, expanding up to 10+ for load testing. One perceived downside to RedHat 389 is that the hostname matters. Firing up a new instance to expand capacity can't be fully automated. Puppet and other provisioning scripts?

Are the trial VM's single CPU or multi CPU? Immediate response is that the "small instance" is single CPU.

Jimmy discussed the database backend choice as a function of performance and fault tolerance. Jimmy is thinking PostGres. Michael is against Oracle. Michael suggested Nate and Jimmy investigate DB choices. Open source is a preference if possible. At scale, 3 or 4 front-end machines for CPR. How many database servers?

Avoid all forms of technology lock-in! (e.g. database choice)

Nate prepared the architectural diagrams. They mock up the various flows through the systems.

Action Items

Nate: Summary of VM requirements for now and the near term for load testing. Michael will help.

Nate and Jimmy look at database options

Jimmy start thinking about database structure.

Nate will ask Khalil to check on MS Azure load balancers. Have Todd join a tech call.