

Incident Report - October 6, 2015

Incident #2015-102

Shibboleth Single Sign-On Service Outage

Summary

On the morning of October 6th, 2015 between approximately 7:20 am and 8:10 am the production Shibboleth Single Sign-On (SSO) service was not functioning correctly, preventing successful login for any users attempting to access a Queen's University Shibboleth SSO protected production website or service. Affected services included: Moodle, Liferay Portal (my.queensu.ca), SOLUS, PeopleSoft, and Ensemble Streaming among others. Any user who already had an active Shibboleth SSO session during this period should have been able to continue using the sites whose service providers they had authenticated with, however new logins would not have been possible during this period.

Impact

During the outage, any users attempting to login to a Queen's University Shibboleth SSO-protected production website would have been presented with a service outage notification page. Some of the production sites affected included: Moodle, Queen's Portal (my.queensu.ca), SOLUS, PeopleSoft, and Ensemble Streaming.

Users who already had an active session with a Shibboleth Service Provider would have been able to continue using the particular sites they had logged into, but would have been unable to log into other SSO-protected sites.

Examining the recorded statistics from the past few workdays, during this same time period we normally have approximately 600-700 unique logins.

Root Cause

This issue was the result of attempting to update the configuration files on our production Shibboleth Identity Provider (IDP). Based on the log output from the IDP nodes, it is unclear exactly what the issue was in the configuration, but it was due to a change in either attribute-filter.xml, attribute-resolver.xml, or relying-party.xml. As opposed to previous instances where there were errors with the IDP configuration files, in this instance the status and metadata pages for the IDP nodes were still loading. At this point, the configuration was loaded on the second production node, however, instead of fully testing the login process to the portal, an existing session browser session was just refreshed, which appeared fine.

Resolution

The updated configuration files were reverted to the previous working SVN revisions within five minutes of becoming aware of the issue, at approximately 8:10 am.

Communications (Internal)

There were three ITSC issues created in iTrack at approximately 7:36 am by nocol, in response to sermon marking the login to the various Moodle environments as being down. A telephone call was placed at approximately 8:00 am to the responsible ITS staff, and the configuration was reverted and the services accessible again by 8:10 am

ITSP Communication (External)

An External Notification was created at 8:08 am indicating that there was an issue logging into a number of Queen's services, which was updated by 8:22 am, indicating that the issues with the single sign-on service had been resolved.

Lessons Learned

Our standard procedure for configuration updates to the production Shibboleth IDP will be modified, such that the full login process and page load for the portal (my.queensu.ca) is tested in a separate browser or private browser window. As of October 7th, 2015, it was seen that there can still be severe issues even though the status and metadata pages for the IDP load successfully, and an existing browser tab logged into the portal could be refreshed without issue.

Action Items

- Modify Shibboleth IDP update and restart procedure for future changes, specifying page load of <https://my.queensu.ca> in a separate browser or new private browsing tab, preventing unnecessary service outages.