Identity and Access Management Renewal

Introducing SAML to the Campus Infrastructure April 16th, 2015

Sean Mason: sean.mason@uwaterloo.ca: x42511

Where are we now?

- Batch Identity Data Processing
- LDAP (Active Directory) Authentication
- CAS Web Application Single Sign-on

Why use SAML?

- The Cloud
 - Many vendors support the SAML protocol
 - Avoid provisioning identity data in the cloud
- Identity Data Transfer
 - Communicate identity data in real-time, rather than batch transfer
 - Active directory cannot store sensitive user attributes
 - Active directory should not store users that are not part of the campus community

Why start with an identity provider?

- Identity lifecycle changes are coming to address:
 - Current lifecycle problems. For example, instructors
 - Improved student applicant handling
 - Graduate student applications OUAC
 - Prospective student handling
- Introduce services that will help mitigate these changes before they are introduced to give systems time to adapt

What do I need to migrate?

- A SAML service provider
 - A trusted component of the authentication infrastructure for the university
 - Service provider metadata
- An understanding of the SAML authentication protocol
- A list of required attributes

When?

- A pilot identity provider is deployed and being used by:
 - Concur
 - Lynda.com
- Production ready instance to be launched this summer
- Migration planning discussions with ISS may begin at any time

Definitions

- Identity Provider (IdP): A service that maintains a data store of users to which known authentication mechanisms are offered. Constructs assertions for requesting service providers
- Service Provider (SP): Represents a target web application. Consumes assertions from the IdP
- SAML Assertion (Token): An XML response from the IdP constructed for the requesting SP which contains the configured identity information about the authenticated user
- Metadata: XML that describes an SP or an IdP that is exchanged between the two in order to configure their integration

Resources

- How a SAML authentication environment fits together: https://wiki.shibboleth.net/confluence/display/CONCEPT/FlowsAndConfig
- Getting started with the Shibboleth service provider: https://wiki.shibboleth.net/confluence/display/SHIB2/NativeSPGettingStarted
- "Shibbolize" an application: https://wiki.shibboleth.net/confluence/display/SHIB2/NativeSPEnableApplication