Infrastructure - Authentication, Private/Public Data, Roles, Ownership, Group Membership - Requirements

Use Cases Depending on this Infrastructure

- Use Case 1.1: Build a virtual collection – Description | Requirements
- Use Case 1.2: Tag scholarly information resources to support reuse – Description | Requirements

Requirements List

Item	Overall Progress	Priority	Developer	Description	Dependencies	Comments
User Authentication						
Infrastructure						
			TBA	Provide connection to local universities authentication system (e.g. Shibboleth at Cornell)	Authentication service provided by each university.	Hydra has been successfully integrated with LDAP, CAS, and Shibboleth.
			TBA	Establish means for submitting credentials to authentication system		
			TBA	Establish means for getting confirmation from authentication system that user is authenticated and globally unique id to use for this user in local applications		
Model						
			TBA	Concept of a user.		Should any information about users be stored in the triple store beyond relationships to a URI constructed from the user's globally unique id? If so, what is the ontology to use for modeling user information in triples?
			TBA	Establish database table to hold Globally Unique User ID (i.e., from university authentication system), and additional information, such as roles and group membership.		
User Interface						
			TBA	Create login widget for use in applications? OR Establish forward and return protocol to local university's login page.		
Roles						
Infrastructure						
			TBA	RMDB or triple store		• Is this database shared between universities? • Is this database queryable by other universities? • Is the schema shared between universities? • Is the database shared between applications at a university? • Is the code for this common infrastructure plugable in multiple applications?
Model						
			TBA	Establish database table to hold definitions of Roles (e.g. Role ID, Role Name, Role Description).	RMDB for Roles and Groups	Model in traditional relational database vs. modeling in triple store? Possibly model in RMDB because roles are application specific and not part of the open linked data model.
			TBA	Low level CRUD operations for Role Definitions.	RMDB for Roles and Groups	

			TBA	Establish database table to hold user-role pairings (e.g. User ID, Role ID)	RMDB for Roles and Groups	Model in traditional relational database vs. modeling in triple store? Possibly model in RMDB because roles are application specific and not part of the open linked data model.
			TBA	Low level assignment /deassignment methods • for a single user to/from a role • for a set of users to/from a role • for a single user to/from several roles	RMDB for Roles and Groups	
			TBA	Query whether a user has a role.	RMDB for Roles and Groups	
User Interface						
			TBA	UI for CRUD for Role Definitions.	Establishment of the model and low level methods	Does Hydra have the concept of user roles and related UIs for CRUD? Exploring sufia and hydra-role-management.
			TBA	UI for assigning/deassigning one or more roles for a specific user.	Establishment of the model and low level methods	Does Hydra have the concept of user roles and related UIs for assignment/deassignment?
			TBA	UI for assigning/deassigning one or more users for a specific role.	Establishment of the model and low level methods	
Ownership						
Infrastructure						
			TBA			
Model						
			TBA	Establish ownership model (e.g. <user's URI> <owns> <item's URI> VS <item's URI> <ownedBy><user's URI>)	Selection of ownership ontology defining the <owns> and /or <ownedBy> predicates.	Model in triple store seems easiest since ownership of an item is core and removes the requirement that all items be repeated in another store.
User Interface						
			TBA	UI for assigning ownership to an object.		This may be too application specific to have a general UI for ownership assignment.
Group Membership						
Infrastructure						
			TBA	RMDB or triple store		See questions in the comments for this item under Roles section above.
Model						
			TBA	Establish database table to hold definitions of Groups (e.g. Group ID, Group Name, Group Description).	RMDB for Roles and Groups	Model in traditional relational database vs. modeling in triple store? Possibly model in RMDB because groups are application specific and not part of the open linked data model.
			TBA	Low level CRUD operations for Group Definitions.	RMDB for Roles and Groups	
			TBA	Establish database table to hold user-group pairings (e.g. User ID, Group ID)	RMDB for Roles and Groups	Model in traditional relational database vs. modeling in triple store? Possibly model in RMDB because groups are application specific and not part of the open linked data model.
			TBA	Low level assignment /deassignment methods • for a single user to/from a group • for a set of users to/from a group • for a single user to/from several groups	RMDB for Roles and Groups	
			TBA	Query whether a user is a member of a group.	RMDB for Roles and Groups	
User Interface						

			TBA	UI for CRUD for Group Definitions.	Establishment of the model and low level methods	Does Hydra have the concept of groups and related UIs for CRUD?
			TBA	UI for assigning/deassigning one or more groups for a specific user.	Establishment of the model and low level methods	Does Hydra have the concept of user membership in groups and related UIs for assignment /deassignment?
			TBA	UI for assigning/deassigning one or more users for a specific group.	Establishment of the model and low level methods	
Public VS. Private Data Beyond That Defined in the Library Catalog						
Infrastructure						
			TBA	Establish a triple store to hold public data at each university. Holds... • catalog bibliographic works • digital resources • annotations (free form, controlled vocabulary, virtual collections tag)		• Is this application specific data stored in the same triple store as Library Catalog triples? • Does it depend on the application data being stored (e.g. public annotations which extend the catalog entry are stored, but group membership of users is not)?
			TBA	Establish a triple store to hold private data at each university. Holds... • any catalog bibliograph work marked private • any digital resource marked private • annotations marked private		Still need to identify what will be kept private. Each application may have its own definition, but hopefully, we will have best practices established with recommendations for determining which data to hold private and procedures for operating with private data.
Model						
			TBA			
User Interface						
			TBA			

RMDB for Roles and Groups