The DSpace Course

Module – User management and authentication options
Module objectives

By the end of this module you will:

- Understand the concepts of authentication and authorization
- Fully understand user and group management in DSpace
- Have added and removed users from groups
- Have a high level understanding of some advance authentication options
Two important concepts:

- **Authentication (AuthN)**
  - The process of establishing the identity of a user

- **Authorization (AuthZ)**
  - The granting of privileges to a user to perform an action on a resource
User creation and management

- **User creation**
  - Covered in module ‘An introduction to users and groups’

- **User management**
  - **Modify users**
    - Administer menu -> E-People -> Select E-person -> Edit
  - **Delete users**
    - Administer menu -> E-People -> Select E-person -> Delete...

**Administer EPeople**

Choose an action:
- Referential integrity
  - Database theory of relational databases
  - Data cannot be deleted if it referred to elsewhere
  - So...
  - Users cannot be deleted if they own anything
    - Submitted items
    - Items in a workflow
    - Items part way through submission
  - This maintains the integrity of the data
Group management

- Administer menu -> Groups
- Create new groups ‘Create New Group’ button
- ‘Edit’ or ‘Delete’ groups
- Users or groups can be members of groups

**Group Editor**

Please note that you do not need to manually add users to the "anonymous" group - all users are members implicitly.

Warning - if you try to delete a group that is referred to by an authorization policy or is a workflow group you will get an internal server error.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Edit</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Anonymous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Item authorizations

- Edit an item’s authorizations
  - Edit an item

- Assign policies to:
  - The item
    - It’s bundles
    - It’s files

- Policies assigned to groups not users
  - ANONYMOUS group for anonymous access
Collection authorizations

- Edit a collection’s authorizations
  - Edit a collection

- Collection administrators can act as administrators for a collection (edit items)

- Assign policies to the collection:
  - READ / WRITE / ADD / REMOVE
  - DEFAULT_ITEM_READ / DEFAULT_BITSTREAM_READ
  - COLLECTION_ADMIN
Practical exercise: edit group membership

- Create a new user
  - [dspace]/bin/create-administrator
- Log in to ensure they are an administrator
- Remove them from the Administrator group
- Log back in to ensure the user is not an administrator anymore
Alternative authentication systems - LDAP

- **LDAP**
  - Lightweight Directory Access Protocol
  - Most institutions run an LDAP system to provide a central user password system
  - Active Directory has an LDAP interface
  - Users can be created using LDAP queries
  - Passwords not stored in DSpace
Shibboleth

- A devolved authentication system
- Allows users to log in to systems outside their institution
- A user’s local institution performs the authentication
IP authentication

- IP address of user (no login required)
- If the IP address matches (e.g. is ‘on campus’) then the user becomes a member of a special group (e.g. ‘Internal-users’).
- That group can be assigned privileges
- Can be used to protect internal resources, and fallback to a requiring a login
  - Stackable authentication
These slides have been produced by:

- Stuart Lewis & Chris Yates
- Repository Support Project
  - http://www.rsp.ac.uk/
- Part of the RepositoryNet
- Funded by JISC
  - http://www.jisc.ac.uk/