Groups, Roles, and Privileges

Tom Barton
University of Chicago



Outline

- Why use an access management tool?
- Essential concepts by way of Grouper
- Implementation examples

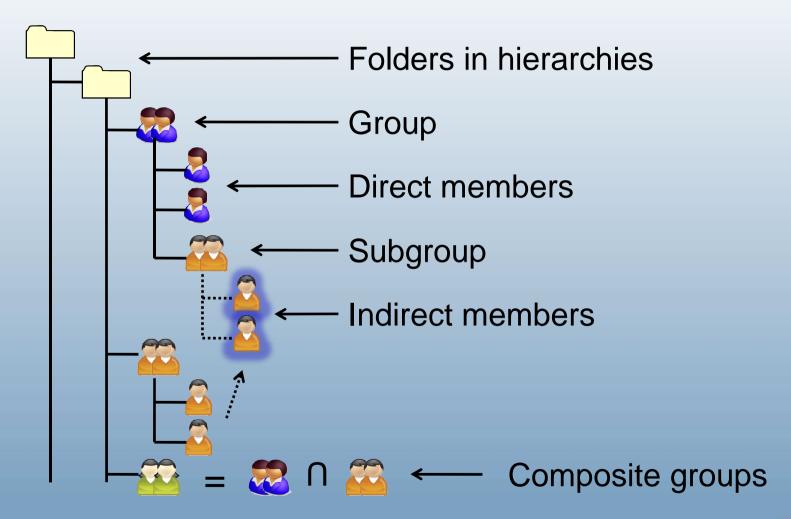


Why use an access management tool?

- Lower cost by factoring access management out of individual applications
- Simplify & make consistent by using the same group or role in many places
- Let the right people manage access, directly, with no IT required
- See who can access what, in one place
- Reduce risk by automatically removing access



Grouper: core concepts



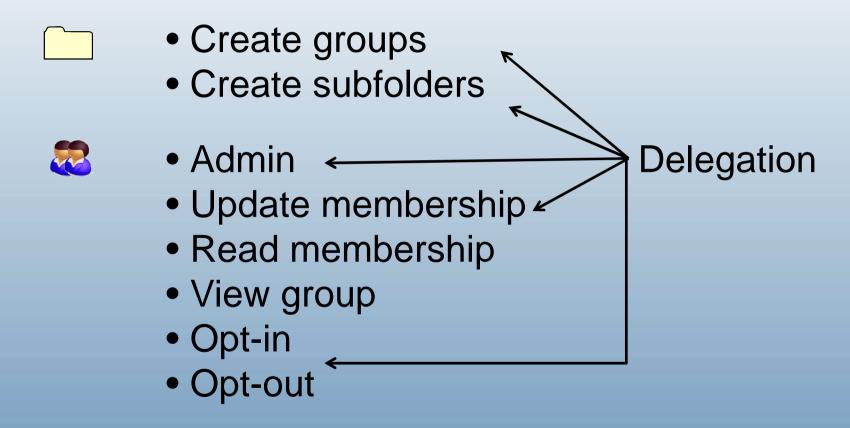








Security & delegation in Grouper



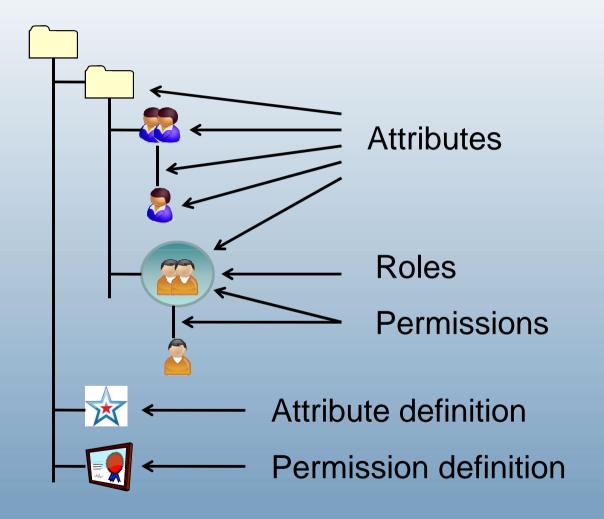


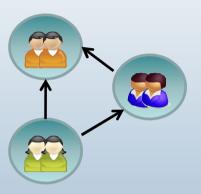
What's in a Grouper group?

- Folder name
- Names one short, one display
- GUID globally unique identifier
- Description
- Members opaque Subject references
- Privilegees opaque Subject references
- Operational attributes
- Site-defined attributes



Beyond groups





Role inheritance

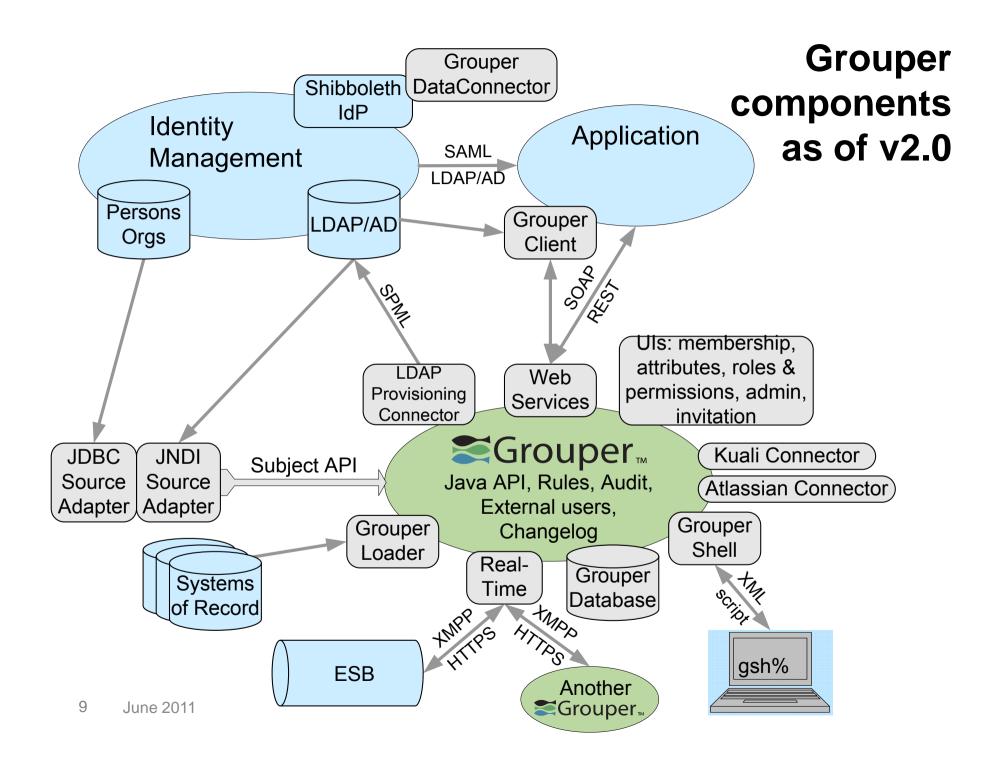
Delegation model extends that for Groups



Access management lifecycle support

- Membership start & end times (optional)
- Move or copy folders, groups, etc
- User audit
- Point in time audit
- Rules





Access management is a process: making authZ more than authN

- Start out with a single LDAP attribute
 - affiliation
- Get central IT out of the loop
 - distributed management
 - exceptions
 - departmental apps
- Increase integration of access management
 - Direct app integration with web services
 - ESB/SOA, REST/SOAP
 - Roles & privileges to support larger, deeper apps



EXAMPLES



Tom Barton's UChicago group memberships

Log out Act as self Welcome Thomas Barton My memberships 0 My enrollment My memberships To find groups in which you are a member, you Join groups - Browse the groups hierarchy - List your groups My responsibilities - Search for groups by name Manage groups Browse or list groups () Show folders and groups Create groups Showing 1-50 of 74 items My tools Explore Showing 1-50 of 74 items Search **Group workspace La** Grouper Administration:can_impersonate **La** Grouper Administration:provisioner admins **Entity workspace \$\$** Grouper Administration:Wheel Group Help 11 The University of Chicago: Applications: Bulkmail: users 11 The University of Chicago: Applications: Cmail: users: authorized The University of Chicago:Applications:Cmail:users:eligible_factor 11 The University of Chicago: Applications: Confluence: NSIT: Directors 11 The University of Chicago: Applications: Confluence: NSIT: esx **\$\$** The University of Chicago:Applications:Confluence:NSIT:Everyone 11 The University of Chicago: Applications: gnetid: admins 11 The University of Chicago: Applications: lists: admin-leadershipgroup:subscribers Grouper is sponsored by The University of Chicago: Applications: lists: cnet-authn: subscribers 11 The University of Chicago: Applications: lists: directors: subscribers 11 The University of Chicago: Applications: lists: era-news: subscribers * The University of Chicago: Applications: lists: fact: subscribers

Memberships become LDAP attributes

dn: uid=tbarton,ou=people,dc=uchicago,dc=edu

ucismemberof: uc:org:nsit:integration:techag

ucismemberof: uc:org:nsit:srdirs

ucismemberof: uc:org:nsit:integration:iteco:wr

ucismemberof: uc:applications:confluence:NSIT:esx

ucismemberof: uc:org:nsit:integration:iteco:rd

uclsMemberOf: uc:applications:vpn:authorized

ucismemberot: uc:org:library:gnet:admins

ucismemberof: uc:applications:gnetid:admins

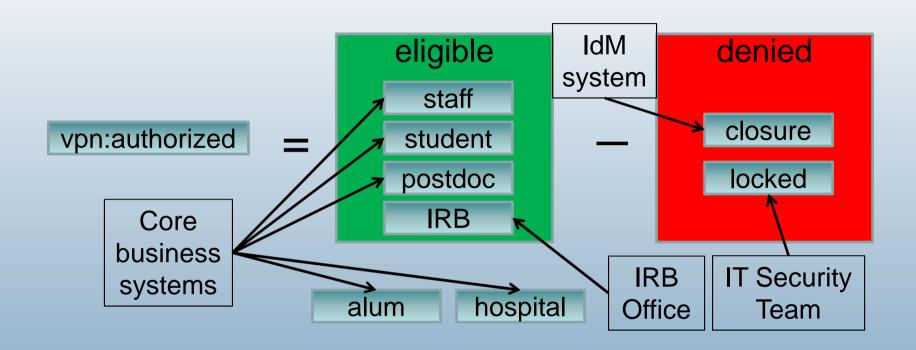
ucismemberof: uc:applications:wireless:authorized

ucismemberof: uc:applications:cmail:users:authorized

ucismemberof: uc:reference:affiliations:effective:staff



UChicago VPN simple delegation example



Different groups, different authorities. VPN only uses "vpn:authorized".



UChicago applications managed by Grouper, so far

aams

Ad Astra

Bulkmail

Business Objects Enterprise

Chalk

CityRyde

Cmail

cnet

Confluence

Directory Administration

dmca

Facilities SIMS

gnetid

grouper

im

isx

IT Ecosystem

Lab School

LDAP

lists

Mail Forwarding

Microsoft Exchange

modem pool

myUChicago

online directory

password expiration

rt

Service Now shibboleth

Statements portlet

SVN

tank

UC Groups

unifiedcomm

uPoV Monitor

versions

voip

vpn

web hosting

webproxy

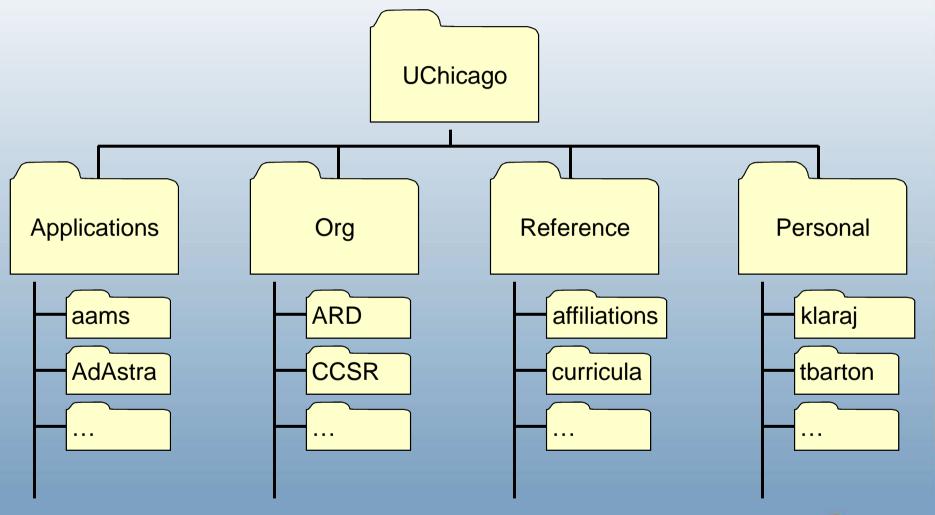
Webshare

webspace

wireless

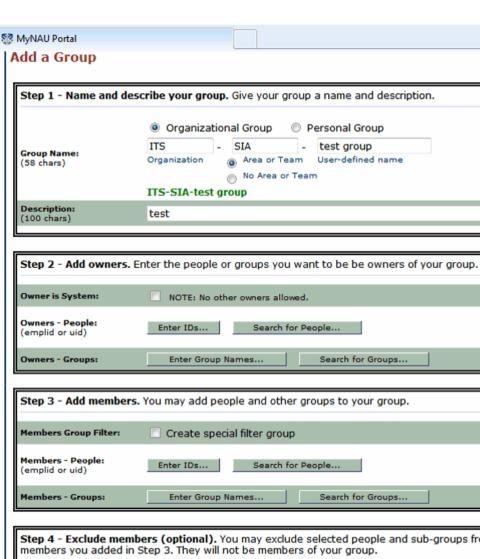


Distributed management: keep it straight





Northern Arizona's Add a Group Portlet



Step 4 - Exclude members (optional). You may exclude selected people and sub-groups from the members you added in Step 3. They will not be members of your group.

Excluded People: (emplid or uid)

Enter IDs... Search for People...

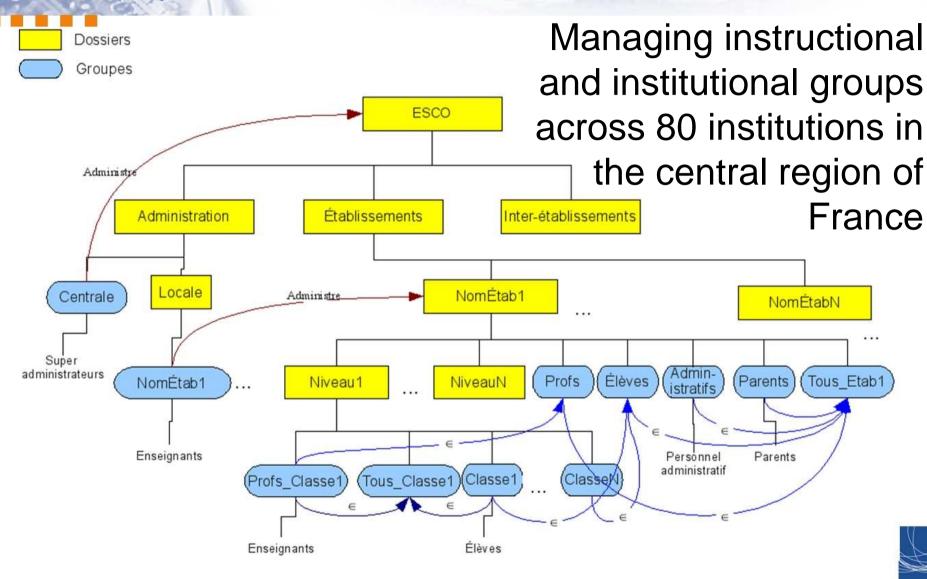
Excluded Groups: Enter Group Names... Search for Groups...

Step 5 - Add your group. Review the information you have entered, especially the group name, since it cannot be changed once the group is added. Then click the *Add Group* button to add this group.

Reset



Grouper: Extrait de l'arborescence à créer







recia



1 SURFfederatie SAML





1 SURFteams (grouper)



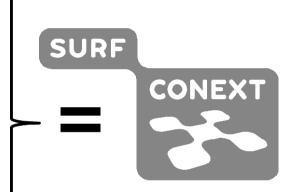


② OpenSocial





① Collaboration tools



SURFnet's national scale collaboration platform

Thanks!

Further questions?

Infosheets, mail lists, wiki, downloads, etc: www.internet2.edu/grouper

Grouper demo server: https://grouperdemo.internet2.edu/

