

DECEMBER 9-12



NEW ORLEANS LA

Grouper FoF (Fish of a Fin)

PRESENTER NAMES:

Chris Hyzer, Penn Shilen Patel, Duke Chad Redman, UNC Bill Thompson, Lafayette



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CORE TEAM







Grouper Team (alphabetical) - people who work on Grouper

- Carey Matt Black (Ohio State) general support
- Emily Eisbruch (Internet2) work group support
- Chris Hyzer (Penn) Grouper lead, API, WS, and UI
- Shilen Patel (Duke) API, loader, UI
- Chad Redman (UNC) Dev tools, UI
- Vivek Sachdeva (independent) API, WS, UI
- Bill Thompson (Lafayette College) GDG and Grouper Training Environment

Note: many others in Internet2 spend time working on Grouper



WHAT IS GROUPER





What is Grouper

- Central authorization
- Loading data from systems of record
- Groups
- Provisioning
- Deprovisioning
- Auditing
- Delegation and distributed management
- Permissions



Grouper and InCommon Trusted Access Platform

InCommon delivers a packaged suite of components (Shibboleth Identity Provider, **Grouper**, COmanage, midPoint) with a set of APIs to provide consistency and flexibility.

TIER provides the Grouper project:

Requirements for development

Funding

Architectural guidance

Standards to harmonize with other TIER products

Contributions in areas such as: packaging, plugins, administrative help, etc



ROADMAP AND SCHEDULING





Grouper Roadmap Schedule

- Finish development on Grouper v. 2.5
- Test 2.5
- Release 2.5 (2 months out)
- Low risk improvement patches in 2.5
- Work on 2.6
- Release 2.6 (Q4 2020)



Grouper Roadmap - 2.4 patches remaining

https://spaces.internet2.edu/display/Grouper/Grouper+Product+Roadmap

- SQL provisioning and syncing
- Asynchromous UI improvement
- Rule update for deprovisioning (effective non-group membership changes)



Grouper Roadmap - 2.5 release items

- Grouper enabled/disabled dates
- WS for point in time memberships
- Database changes for future 2.5 patches
- Better UI support for attributes on memberships
- WS for audits
- Improved paging in WS



Grouper Roadmap - 2.5 patches (long term)

- Support JSON in Grouper client
- Subject source configuration wizard GUI
- Random access change log
- Rules in the UI
- Provisioning framework harmonization
 - Integrate with connid provisioning framework?
- PSPNG integrate with provisioning UI
- PSPNG configuration wizard GUI
- PSPNG performance improvements
- Harmonize Azure AD provisioners
- WS authn for local entities, self provision WS credential
- Minimum group size
- Insert your item here



Grouper Roadmap - Containers

You will save time managing Grouper and the support burden will be reduced if you migrate to using the ITAP container

- When you upgrade to 2.5 you should start using the ITAP container
 - If you really don't want to, perhaps build a container and copy the file structure out to your server
- You should centralize your configuration in the database
- The grouper team will provide documentation and integration with the Grouper Installer for containers
 - What do you need?



Grouper Roadmap - Merged directory in Grouper?

- Grouper builds into various directories
- ITAP container has three main directories
 - /opt/grouper/grouper.ui
 - /opt/grouper/grouper.ws
 - /opt/grouper/grouper.apiBinary
- Imagine one directory
 - /opt/grouper/grouper.webapp
- That has UI/WS/daemon
- grouper.properties configs would enable / disable the ui / ws / daemon
- All plugins/jars would be there by default
 - Pspng, messaging, box, etc
- Do people want this? Would it make things less confusing? Ponder it?



COMMUNITY CONTRIBUTIONS





Community Contributions

https://spaces.at.internet2.edu/display/Grouper/Community+Contributions

2019 Updates from:

- University of Montana
- Penn
- UMBC
- UNC
- University of Illinois



CHRIS - PROGRESS SINCE GLOBAL SUMMIT



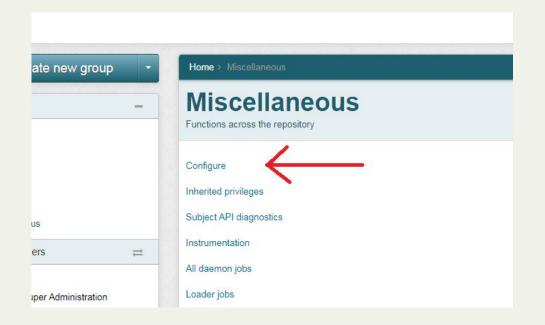


Configuration in UI

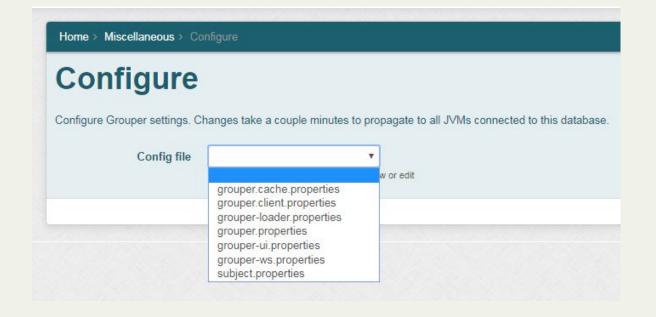
https://spaces.at.internet2.edu/display/Grouper/Grouper+configuration+in+the+database+and+Ul

- 6 config files in UI, need to add more (log4j? Externalized text?)
 - Grouper, subject, ui, ws, loader, cache
- Properties files are still there, you can use those if you like (not recommended)
- Metadata about each entry
- Documentation still largely in base properties file
- Auto-encrypt passwords (cannot see raw password)
- Wizards and better UI screen on schedule in future
- Can restrict by source IP address
- Import existing config files
- Does take some effort to consolidate
- Consolidate your configuration (fewer errors), make containerization easier





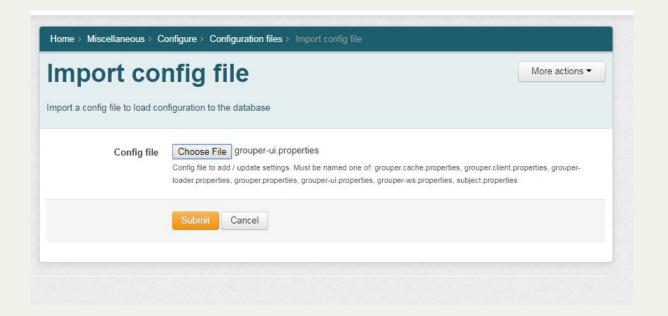






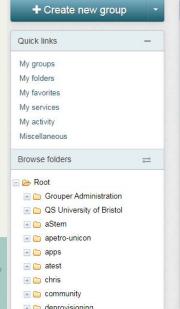
	loader.ldap.requireTopStemAsStemFromConfigGroup Type: boolean (true or false)	true by default the top folder for an Idap group of groups is the folder where the config group lives, set to false if you want to be able to provision groups to anywhere	grouper-loader.base.properties
	loader.ldap.defaultGroupFolder Type: text	groups: if you don't specify a groupNameExpression, groups will be loaded into this folder if this property doesn't exist, it will be groups: if it is blank, then there is no top level folder e.g. loader.groups	grouper-loader.base.properties
	loader.ldap.resultsTransformationDelimitedValueExampleDelimiter Type: text	- Delimiter used in the example edu.internet2.middleware.grouper.app.loader.ldap.LdapResultsTransformationDelimitedValueExample	grouper-loader.base.properties
	Ioader.allowStemDisplayNameChangesUnderStems Type: folder , multiple comma separated values	Comma separated list of stems under which the display name changes in stems are allowed. eg: loader.allowStemDisplayNameChangesUnderStems=school:courses:english, school:faculty	grouper-loader.base.properties
	Ioader.allowBlankGroupDescriptions Type: boolean (true or false)	false If a job creates or updates a group, and the job parameters do not compute a description, true if a blank description is allowed. If false, the description will be set to "(groupExtension) auto-created by grouperLoader".	grouper-loader.base.properties
	loader.fixIncludeExcludes Type: boolean (true or false)	false fix include excludes on each run	grouper-loader.base.properties
	loader.deleteGroupsNoLongerInSource Type: boolean (true or false)	false potentially delete groups that are no longer in the source system	grouper-loader.base.properties
	Auditing lifetimes		
	Auditing lifetimes Property name	Value	Configured in
	WHITES WAY WITH	Value 1825 number of days to retain db rows in grouper_audit_entry with no logged in user (loader, gsh, etc)1 is forever. suggested is 365 or five years: 1825. Default is -1 audit entries with no logged in user aren't really all that useful. There is point in time data still. So removing these shouldn't be a big deal	Configured in grouper-loader,properties Default value: -1
	Property name loader.retain.db.audit_entry_no_logged_in_user.days	1825 number of days to retain db rows in grouper_audit_entry with no logged in user (loader, gsh, etc)1 is forever. suggested is 365 or five years: 1825. Default is -1 audit entries with no logged in user aren't really all that useful. There is point in	grouper-loader.properties
	Property name loader.retain.db.audit_entry_no_logged_in_user.days Type: integer loader.retain.db.audit_entry.days	1825 number of days to retain db rows in grouper_audit_entry with no logged in user (loader, gsh, etc)1 is forever. suggested is 365 or five years: 1825. Default is -1 audit entries with no logged in user aren't really all that useful. There is point in time data still. So removing these shouldn't be a big deal 3650 number of days to retain db rows in grouper_audit_entry1 is forever. suggested is -1 or ten years: 3650 Some think its ok to remove all audit entries over 10 (or X) years, but will default this to never since even at large institutions there aren't that many records. These are audits for things people do on the UI or WS generally (as a different to records with no	grouper-loader, properties Default value: -1 grouper-loader, properties

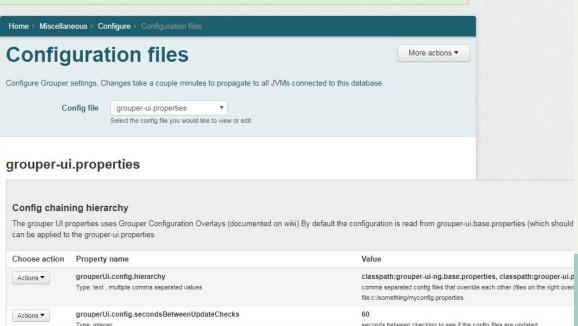
[21]



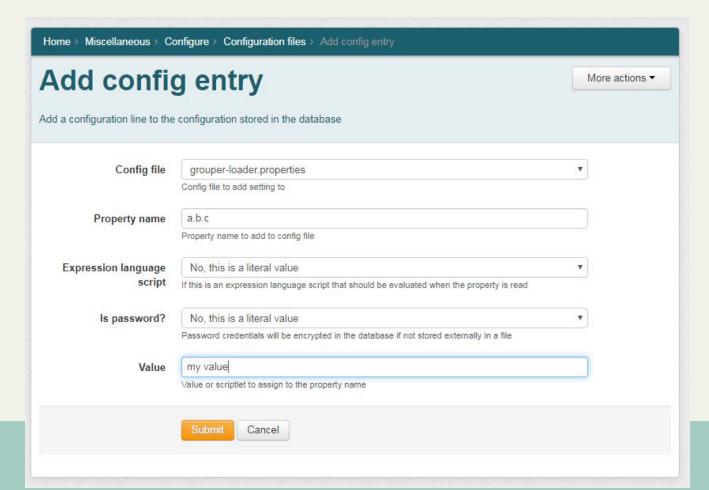














grouper-loader.properties

Config chaining hierarchy

Grouper loader uses Grouper Configuration Overlays (documented on wiki) By default the configuration is read from grouper-loader.base.properties (which should not be edited), and the grouper-loader.properties overlays the base settings. See the grouper-loader.base.properties for the possible settings that can be applied to the grouper.properties

Choose action	Property name	Value	Configured in		
Actions ▼	loader.config.hierarchy Type: text , multiple comma separated values	classpath:grouper-loader.base.properties, classpath:grouper-loader.properties, database:grouper comma separated config files that override each other (files on the right override the left) each should start with file: or classpath: e.g. classpath:grouper-loader.example.properties, file:c:/something/myconfig.properties	grouper-loader.base.properties		
Actions ▼	loader.config.secondsBetweenUpdateChecks Type: integer	60 seconds between checking to see if the config files are updated	grouper-loader.base.properties		
General settings					
Choose action	Property name	Value	Configured in		

Actions Value | loader.autoadd.typesAttributes | false | auto-add grouper loader types and attributes when grouper starts up if they are not there | Expression language | No, this is a literal value | val

Cancel

loader.use.transactions

false

grouper-loader.base.properties

Type: boolean (true or false)

grouper loader.base.properties

if a transaction should be used when loading groups. If not, then commits will happen as the group is loaded (and

Actions ▼ loader.use.membershipThreads
Type: boolean (true or false)

if should use threads in the loader for add/remove member

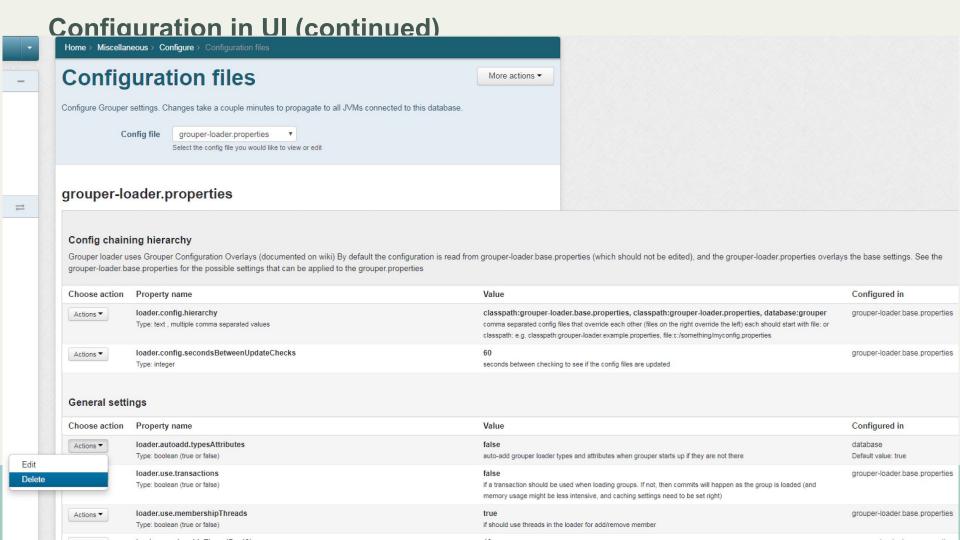
memory usage might be less intensive, and caching settings need to be set right)

grouper-loader.base.properties

database

Default value: true

Actions ▼



SQL provisioning

https://spaces.at.internet2.edu/display/Grouper/Grouper+SQL+database+provisioning

- Sync a database table/view from one database to another
- Does not have to be same database vendor
- Full / group / incremental
- Membership sync'ing to SQL via change log
- Not completely finished yet

When to use

- Sync a subject source table
- Sync memberships to a service for provisioning
 - Sync data to IdP for SAML entitlements
- Sync memberships to reporting database
- Sync data for loading purposes



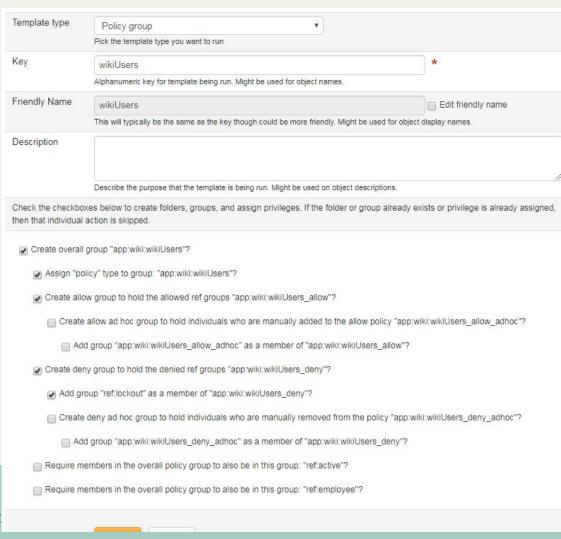
Template for policy group

https://spaces.at.internet2.edu/display/Grouper/Grouper+new+template+wizard+-+policy+groups

- New include/exclude/require
- Allow / deny groups
- Can have ad hoc groups
- Can auto add lock out group(s)

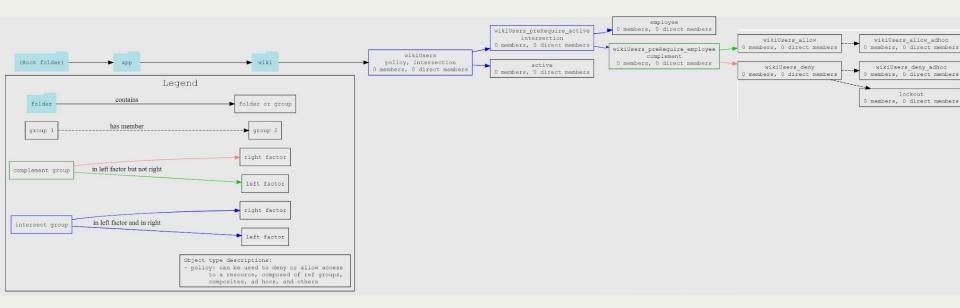


Template for policy group





Template for policy group





Schedule CSV to be SFTP'ed

https://spaces.at.internet2.edu/display/Grouper/Grouper+CSV+files+SFTP

- Construct a CSV with a SQL query
 - Can include memberships in columns
- Configure an SFTP site with password or public key
- Schedule the job



SHILEN PROGRESS SINCE GLOBAL SUMMIT

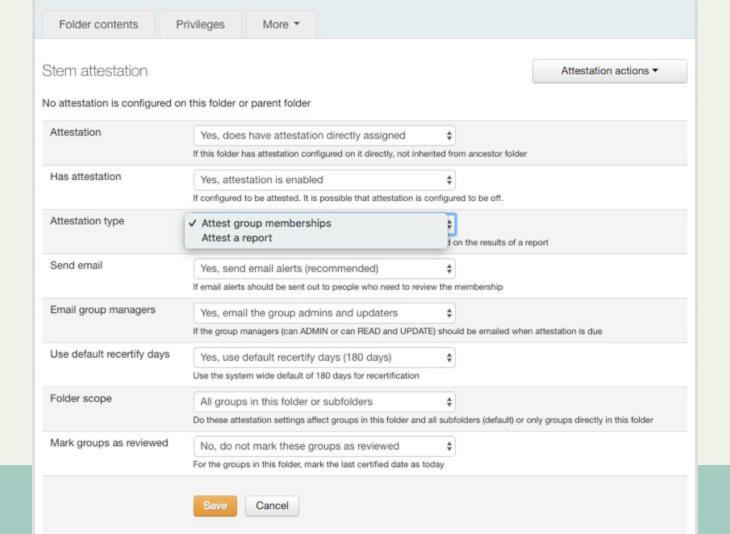




Attestation using reports

- Attestation and reports were two existing features of Grouper
- Initially attestation was only group-based (i.e. are the members of this group correct?)
- This is great in many cases but problematic in some as well
- New feature allows you to attest a report instead

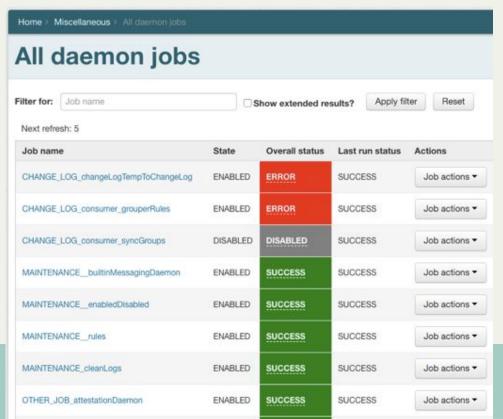






Improvements to All daemon jobs screen

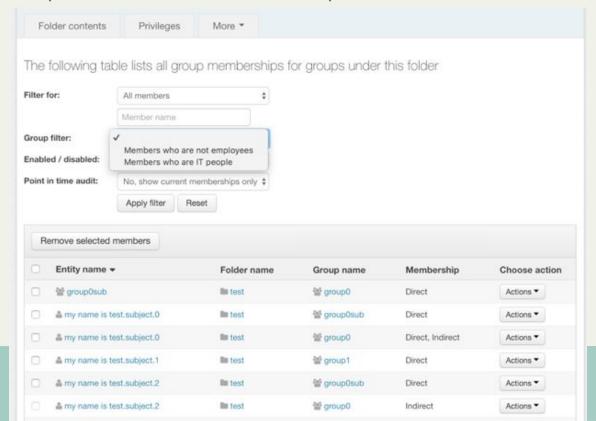
Overall status now based on diagnostics





Show and filter group memberships under a folder

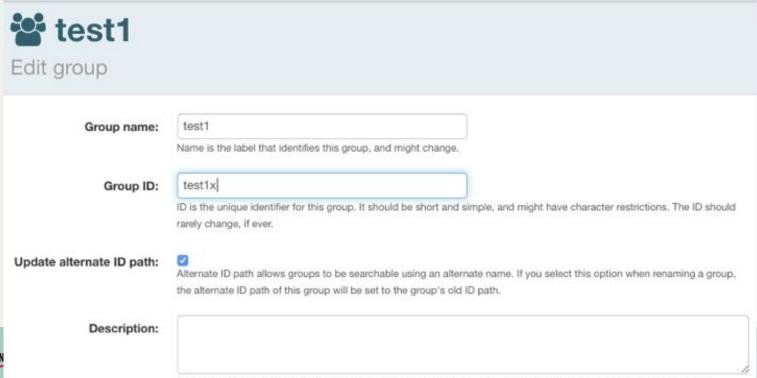
Shows all memberships under a folder with advanced options





Added alternate name to UI group/folder screens

Option to change alternate name and option to no longer set alternate name during group rename





Other Jiras

- Subject source improvements
- Case insensitive option for incremental loader
- Upgrade tasks job
- Bad effective group sets
- Performance improvements to change log processor



Disabling groups

- Currently memberships and attribute assignments are the only objects that can be disabled
- Expanding this functionality to include disabling groups
- Groups would have 3 new fields enabled flag, enabled time, disabled time
- When a group gets disabled, all memberships and attributes associated with that group also get disabled



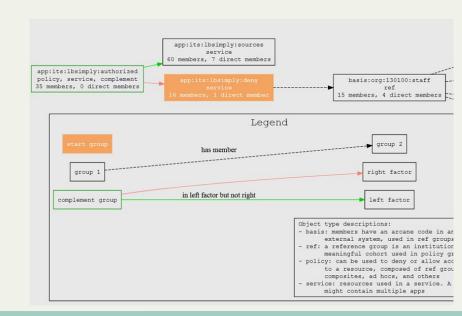
CHAD PROGRESS SINCE GLOBAL SUMMIT





Visualization Enhancements (from Initial Release)

- Membership and owner reverse direction
- Always show both factors of composite groups
- Optional legend
- Show group types if set
- Full screen option
- Circular references no longer crash system :)





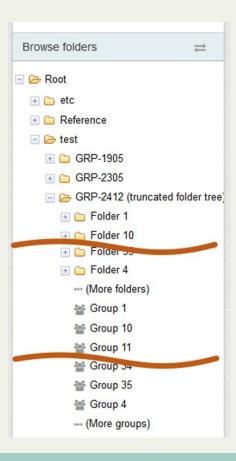
Updated Javadoc Site





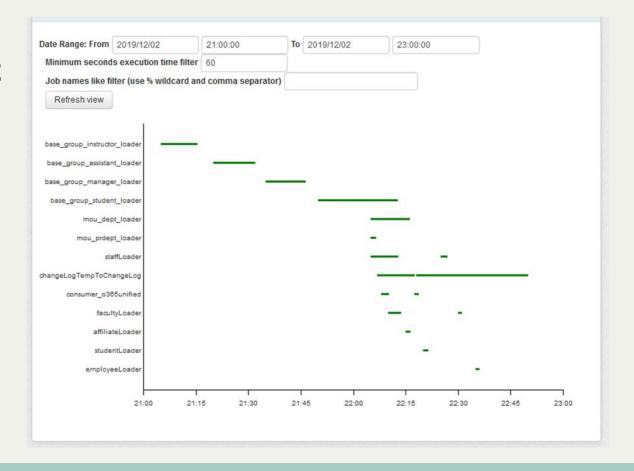
JIRA Bug (and enhancement) Roundup 2019

- GRP-2031: Export objects to gsh generates valid Groovy syntax
- GRP-2048: Folder navigator tree follows current object
- GRP-2412: Folder tree shows truncation
- GRP-2244: List loaders no longer set loaded=false for the groups of other jobs





Job History Chart (in progress)





TECHEX19

VIVEK PROGRESS SINCE GLOBAL SUMMIT





Custom SQL Reports

https://spaces.at.internet2.edu/display/Grouper/Grouper+reporting

- Configure reports on folders/groups
- Run any sql (select) statement
- CSV output
- Flexible scheduling via custom cron expression
- Reports can be stored in S3 or disk
- Contents of reports are encrypted
- Notifies users via email when report is available
- Automatic clean up after 30 days or when there are more than 100 instances



More actions ▼

More v

Members

Privileges

More ▼

Report on group

Report actions ▼

SQL reports that generate a CSV spreadsheets can be configured on this group. The system admin can add reports.

Report name	myReport
Description	my service users
Config type	SQL
Query	SELECT gm.subject_id, gm.name, gm.description FROM grouper_memberships_lw_v gmlv, grouper_members gm WHERE gmlv.group_name = 'testB:testGroup2' AND gmlv.member_id = gm.id AND gmlv.subject_source = 'jdbc' ORDER BY 1
Config format	CSV
Quartz cron	006**?
File name	usersOfMyService_\$\$timestamp\$\$.csv
Send email	Yes, send email when the report is ready

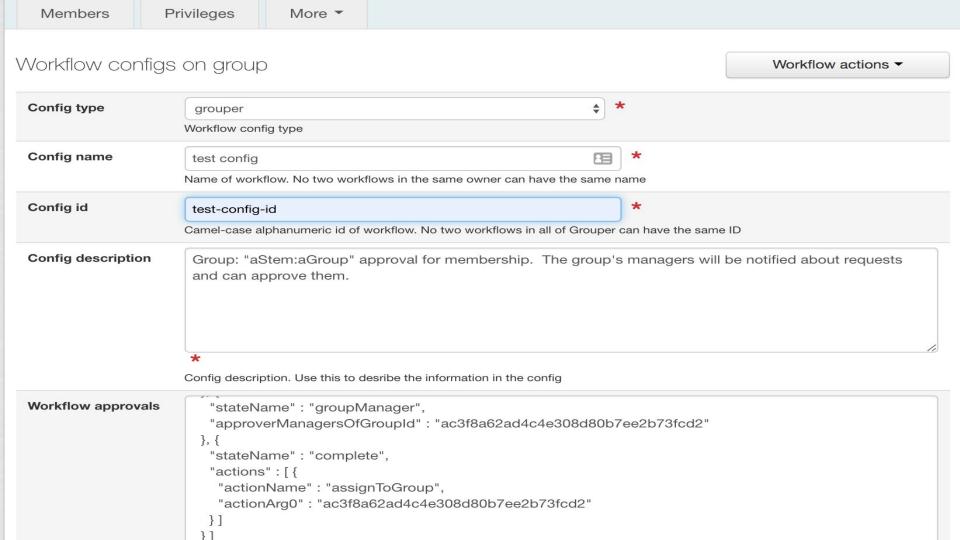


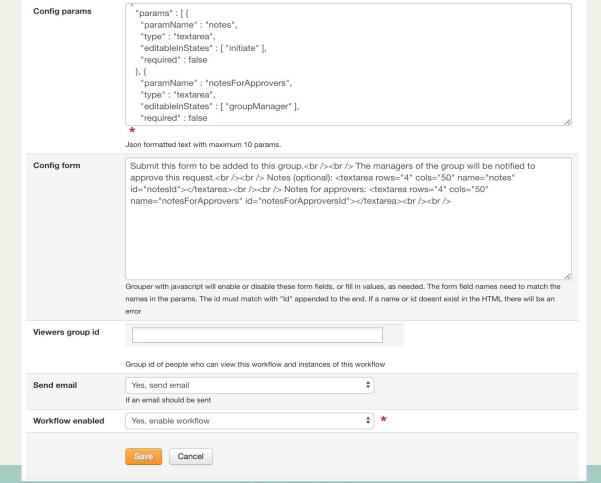
Grouper forms, workflow and approvals

https://spaces.at.internet2.edu/display/Grouper/Grouper+forms%2C+workflow+and+approvals

- Trigger workflow when requesting to join a group
- Admins and workflowEditors members configure workflow on groups
- Can configure custom html and fields to show on the request form
- Fields can be configured to be required or not
- Configure approval states via JSON
- Approval states must have `initiate` and `complete` state
- Configure visibility of html form elements at each state
- Full history is stored at each state in S3 or disk
- Users are notified via email when they have a pending action
- Reminder emails are sent in a digest form
- Approvers can see all the forms in their queue in Miscellaneous -> Forms -> Forms waiting for my approval
- Users can see all the forms they have submitted in Miscellaneous -> Forms -> My forms









TECHEX19



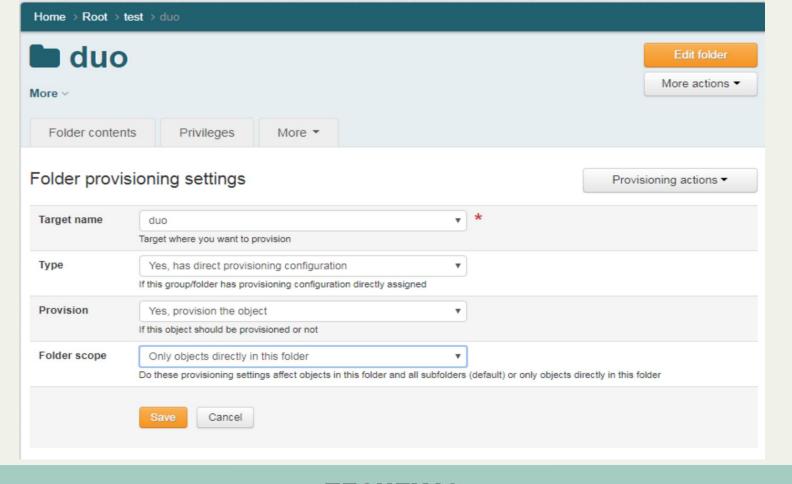
Cancel

Grouper Provisioning in UI

https://spaces.at.internet2.edu/display/Grouper/Grouper+provisioning+in+UI

- Configure provisioning in UI
- Configure targets via config file or database config
- Available for Duo connector
- PSPNG in the future







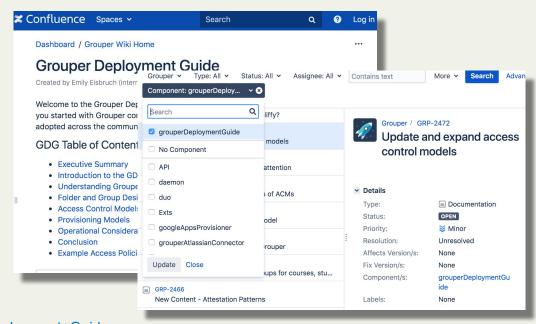
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Grouper Deployment Guide - wiki version

- Wiki version
- Updates for current release
- Focus on explanation/context
- Community feedback
- GDG JIRA component
- ACAMP session



https://spaces.at.internet2.edu/display/Grouper/Grouper+Deployment+Guide https://todos.internet2.edu/browse/GRP-2472?jql=project%20%3D%20GRP%20AND%20component%20%3D%20grouperDeploymentGuide



Grouper School

Grouper Training Environment Updates Learning modules and docker environments

University of Wisconsin-Madison June 2019 Temple University Nov 2019

Upcoming Grouper School University of North Carolina at Greensboro in April 2020.

Minneapolis September 2020



https://www.incommon.org/academy/grouper/



DISCUSSION

Additional text as needed



