

## Use Case – Grouper

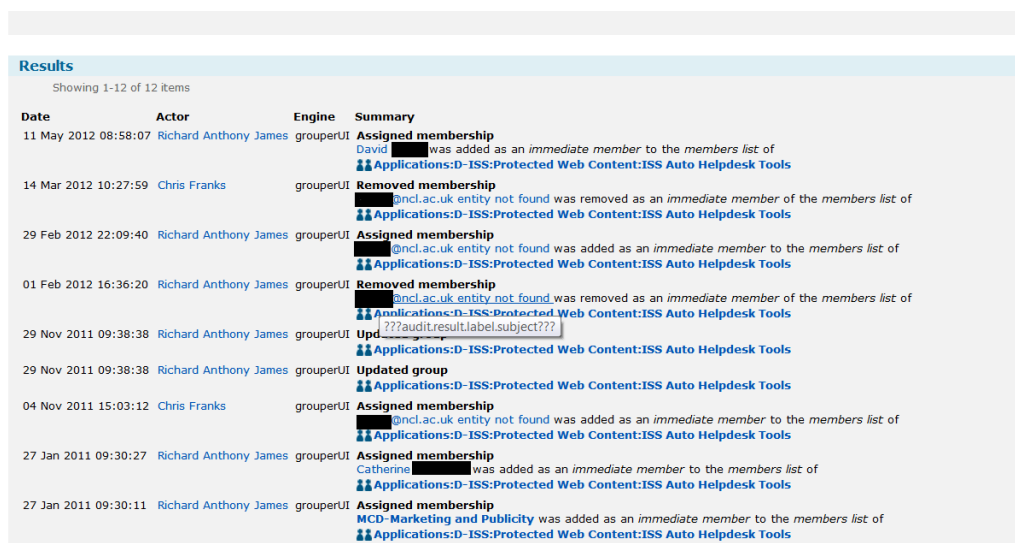
### Scenario

Internet2's Grouper<sup>1</sup> toolkit has been used at Newcastle University since 2008 to enable the creation of institutional and personal groups. With one of the key advantages being able to delegate management of groups to end users to manage memberships and the resources users can access. With 10,000 groups and over 350,000 memberships the ability to be able to report on the usage of Grouper is becoming more important.

For each high level event that is triggered in Grouper, an entry is made into an audit table in the Grouper database. This will capture the following type of events;

- Add Group
- Update Group
- Delete Group
- Add Membership
- Delete Membership

Similar to the Shibboleth logs, this data currently sits in the database without being used for any reporting purposes. The data is used within the Grouper interface itself to be able to show an audit trail a group or user within grouper, as shown below.



The screenshot shows a web interface titled "Results" with a sub-header "Showing 1-12 of 12 items". Below this is a table with four columns: "Date", "Actor", "Engine", and "Summary". The table contains 12 rows of audit log entries. Each entry includes a date and time, the actor's name, the engine used (grouperUI), and a detailed summary of the event, such as "Assigned membership" or "Removed membership", along with specific details like the user added or removed and the group involved. The summaries often include a link to the group's membership list.

Date	Actor	Engine	Summary
11 May 2012 08:58:07	Richard Anthony James	grouperUI	<b>Assigned membership</b> David [redacted] was added as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
14 Mar 2012 10:27:59	Chris Franks	grouperUI	<b>Removed membership</b> [redacted]@ncl.ac.uk entity not found was removed as an immediate member of the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
29 Feb 2012 22:09:40	Richard Anthony James	grouperUI	<b>Assigned membership</b> [redacted]@ncl.ac.uk entity not found was added as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
01 Feb 2012 16:36:20	Richard Anthony James	grouperUI	<b>Removed membership</b> [redacted]@ncl.ac.uk entity not found was removed as an immediate member of the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
29 Nov 2011 09:38:38	Richard Anthony James	grouperUI	<b>Updated group</b> [redacted] was updated as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
29 Nov 2011 09:38:38	Richard Anthony James	grouperUI	<b>Updated group</b> [redacted] was updated as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
04 Nov 2011 15:03:12	Chris Franks	grouperUI	<b>Assigned membership</b> [redacted]@ncl.ac.uk entity not found was added as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
27 Jan 2011 09:30:27	Richard Anthony James	grouperUI	<b>Assigned membership</b> Catherine [redacted] was added as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools
27 Jan 2011 09:30:11	Richard Anthony James	grouperUI	<b>Assigned membership</b> MCD-Marketing and Publicity was added as an immediate member to the members list of [redacted] Applications: D-ISS:Protected Web Content:ISS Auto Helpdesk Tools

Figure 1 – Audit log for group

Although this type of information is useful for identifying day to day actions that have been carried out, it does not provide the high level overview of usage. For example, in the current setup it would not be possible to run a report on how many groups were added or the amount of membership changes in the last month.

Utilities are available within Grouper which enables reports to be generated in a delimited file format which could potentially be processed by a tool such as RAPTOR<sup>1</sup>. These can be generated using the Grouper shell interface, and can be used to report on both group and user activities.

<sup>1</sup> [www.internet2.edu/grouper](http://www.internet2.edu/grouper)

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```
gsh 1% new UserAuditQuery().executeReport()
Results 1 - 10 of 35 ordered by: lastUpdatedDb desc
2009-04-15 07:42:03.179 membership - addMembership ( 261ms, 18 queries)
  Logged in user: pennperson - 10021368 - Chris Hyzer (ip: 127.0.0.1) (actAs: jdbc - test.subject.1 - description.test.subject.1)
  Description: Added membership: group: aStem:activeStudent, subject: jdbc.test.subject.7, field: members
  Server: grouperWS, host: AIT100229, user: mchzyer
2009-04-15 07:41:56.554 membership - deleteMembership ( 376ms, 11 queries)
  Logged in user: pennperson - 10021368 - Chris Hyzer (ip: 127.0.0.1)
  Description: Added membership: group: aStem:activeStudent, subject: jdbc.test.subject.7, field: members
  Server: grouperWS, host: AIT100229, user: mchzyer
```

Figure 2 - Example report (<https://spaces.internet2.edu/display/Grouper/User+auditing>)

This type of information can be useful for resourcing and helping to define a road map for the future direction and development of an application. An example of this would be that with the continuous growth in use of Grouper, it is becoming more business critical. Reporting can assist in decision making processes, such as whether high availability procedures need to be improved for Grouper.

### Approach

This use case will investigate the usefulness of using RAPTOR to report on the usage of an application such as Grouper. A number of high level reports will be made available within the project to demonstrate the configuration between RAPTOR and Grouper.

As part of this use case, statistics will be produced for the following areas.

- **Number of groups added** – Produce information on the amount of groups that have been added in a defined period of time. These can be categorised into auto created and manually created groups.
- **Number of groups deleted** – Produce information on the amount of groups that have been deleted in defined period of time. These can be categorised into auto created and manually created groups.
- **Number of memberships added** – Produce information on the amount of new added memberships that have been action in a defined period of time. These can be categorised into changes made by a user and those changes which are processed automatically by Grouper processes.
- **Number of memberships deleted** – Produce information on the amount of deleted memberships that have been actioned in a defined period of time. These can be categorised into changes made by a user and those changes which are processed automatically by Grouper processes.

Further sub grouping of this information can be carried out for example, number of student membership changes; the number of ISS made changes. This type of sub grouping will be looked into whilst the high level reporting is made available and applied where applicable.

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<sup>i</sup> <http://iam.cf.ac.uk/trac/RAPTOR>