Grouper UI - Composites

Here is an example where an application needs users who have email accounts and are employees

Make a folder for this example

Make three groups

applicationGroup

+ Add members

More actions ▾

More ⌄

| Members | Privileges | More ▾ |

The following table lists all entities which are members of this group.

Filter for: | All members ▾ | Member name | Apply filter | Reset

Remove selected members

☐	Entity name ▾	Membership	Choose action
☐	👤 my name is test.subject.2	Direct	Actions ▾
☐	👤 my name is test.subject.3	Direct	Actions ▾
☐	👤 my name is test.subject.4	Direct	Actions ▾
☐	👤 my name is test.subject.5	Direct	Actions ▾
☐	👤 my name is test.subject.9	Direct	Actions ▾

Show: | 50 ▾ | Showing 1-5 of 5 · First | Prev | Next | Last

employees

+ Add members

More actions ▼

More ∨

| Members | Privileges | More ▼ |

The following table lists all entities which are members of this group.

Filter for: | All members ▼ | Member name | Apply filter | Reset

Remove selected members

☐	Entity name ▾	Membership	Choose action
☐	👤 my name is test.subject.0	Direct	Actions ▼
☐	👤 my name is test.subject.1	Direct	Actions ▼
☐	👤 my name is test.subject.2	Direct	Actions ▼
☐	👤 my name is test.subject.3	Direct	Actions ▼

Show: 50 ▼

Showing 1-4 of 4 · First | Prev | Next | Last

usersWithEmails

+ Add members

More actions ▾

More ⌄

| Members | Privileges | More ▾ |

The following table lists all entities which are members of this group.

Filter for: | All members ▾ | Member name | Apply filter | Reset

Remove selected members

☐	Entity name ▾	Membership	Choose action
☐	👤 my name is test.subject.3	Direct	Actions ▾
☐	👤 my name is test.subject.4	Direct	Actions ▾
☐	👤 my name is test.subject.5	Direct	Actions ▾
☐	👤 my name is test.subject.6	Direct	Actions ▾
☐	👤 my name is test.subject.7	Direct	Actions ▾

Show: 50 ▾   Showing 1-5 of 5 · First | Prev | Next | Last

Identify application group to require members with emails

Edit group ℹ

Current location is:
📁 Root: 📁 test: 📁 testComposite: 👥 **applicationGroup**

Name	applicationGroup
ID	applicationGroup
Alternate ID Path	
Description	
Assign privileges to everyone	☐ Read ☐ View ☐ Optin ☐ Optout ☐ Attribute read
Select group types	☐ addIncludeExclude ☐ grouperLoader ☐ GroupInterface ☐ teaching ☐ mailingList ☑ requireInGroups

Save

Back to group summary

Edit attributes

Current location is:
📁 Root: 📁 test: 📁 testComposite: 👥 **applicationGroup**

Group type	Attribute	Value
requireInGroups		
	requireAlsoInGroups	test:testComposite:usersWithEmails

Save attributes and finish | **Save attributes and add members**

applicationGroup

+ Add members

More actions ▼

Group containing list of applicationGroup after adding the includes and subtracting the excludes

Name:	applicationGroup
Path:	test:testComposite:applicationGroup
ID path:	test:testComposite:applicationGroup
Alternate ID path:	
ID:	applicationGroup
Created:	Thu Jun 8 2:16:20 PM UTC 2017
Creator:	👤 Chris Hyzer
Last edited:	Thu Jun 8 2:25:25 PM UTC 2017
Last edited by:	👤 Chris Hyzer
Type:	Group
Privileges assigned to everyone:	
Composite owner:	👥 applicationGroup is a composite intersection of 👥 applicationGroup system of record and 👥 usersWithEmails
Composite factor of other groups:	This group is not a direct composite factor of any other groups
ID index:	8475187
UUID:	5483aa9344cd4cad8a69c588491a93ee

Now we need to make another composite to chain up the requirements

applicationGroupUsersWithEmails

Edit group composite

Composite:
○ No
● Yes

First factor group:
```
test:testComposite:applicationGroup system of record
```
Enter a group name or ID, or **search for the first factor**.

Operation:
```
and (intersection)                    ▼
```
There are three composite operations: intersection, complement, and union.

Intersection means members of the overall group must be in both factor groups. **Intersection** is used for example when requiring members to be active employees.

Complement means members are in the first group but not in the second group. **Complement** is used for exclude lists.

Union is not needed, you can just add the groups as members of the overall group.

Second factor group:
```
test:testComposite:usersWithEmails
```
Enter a group name or ID, or **search for the second factor**.

[Save] [Cancel]

applicationGroup

Edit group composite

Composite:	○ No
	● Yes

First factor group: `test:testComposite:applicationGroupUsersWithEmails`

Enter a group name or ID, or **search for the first factor**.

Operation: `and (intersection) ▼`

There are three composite operations: intersection, complement, and union.

Intersection means members of the overall group must be in both factor groups. **Intersection** is used for example when requiring members to be active employees.

Complement means members are in the first group but not in the second group. **Complement** is used for exclude lists.

Union is not needed, you can just add the groups as members of the overall group.

Second factor group: `test:testComposite:employees`

Enter a group name or ID, or **search for the second factor**.

[Save] [Cancel]

Check the memberships

applicationGroup

+ Add members

More actions ▾

Group containing list of applicationGroup after adding the includes and subtracting the excludes

More ▾

| Members | Privileges | More ▾ |

The following table lists all entities which are members of this group.

Note: this group is a composite owner: 👥 applicationGroup is a composite intersection of 👥 applicationGroupUsersWithEmails and 👥 employees

Filter for: [All members ▾]   [Member name]   [Apply filter] [Reset]

[Remove selected members]

☐	**Entity name** ▾	**Membership**	**Choose action**
☐	👤 my name is test.subject.3	Indirect	[Actions ▾]

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