Conductor Roles and Permissions

Interaction Design

Date: 17 December 2012

Version: 0.1



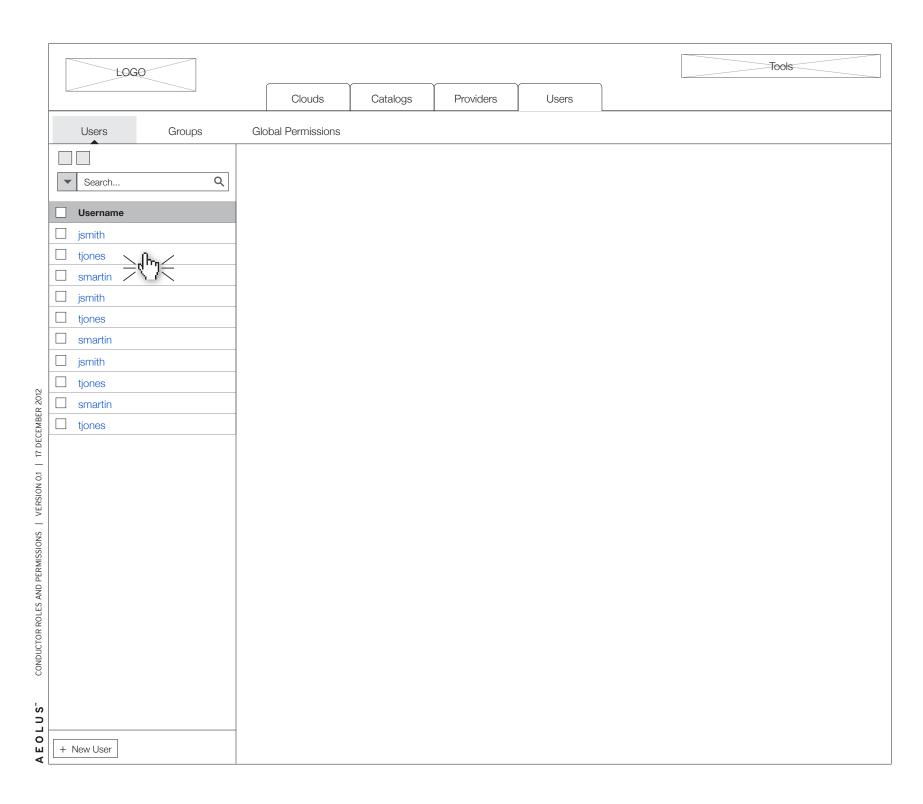
What's in this doc

This document shows an updated concept for how role mapping between users/groups and resources is managed

- From a user's perspective
- From a group's perspective
- From a resource's perspective

This work is an update to a previous document (Conductor Roles and Permissions UX Evaluation) which was presented at the Aeolus Developer Conference in Brno on 7 Nov 2012 and can be found here:

http://www.aeolusproject.org/docs/presentations/2012-nov-conference/jeperry-ConductorRolesEvaluation2012-11-07.pdf



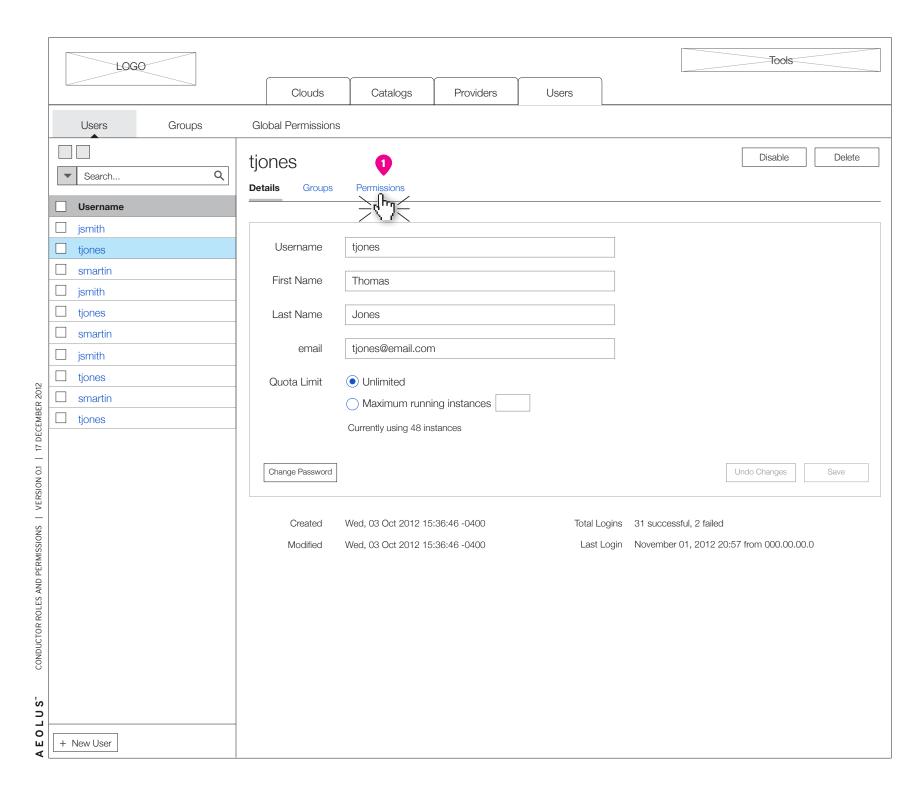
A note about navigation and two-pane layout

The design shown is based on Jaromir's exploration of new navigation and a two pane view for conductor.

http://conductor.jaromircoufal.cz/conductor_concept.pdf

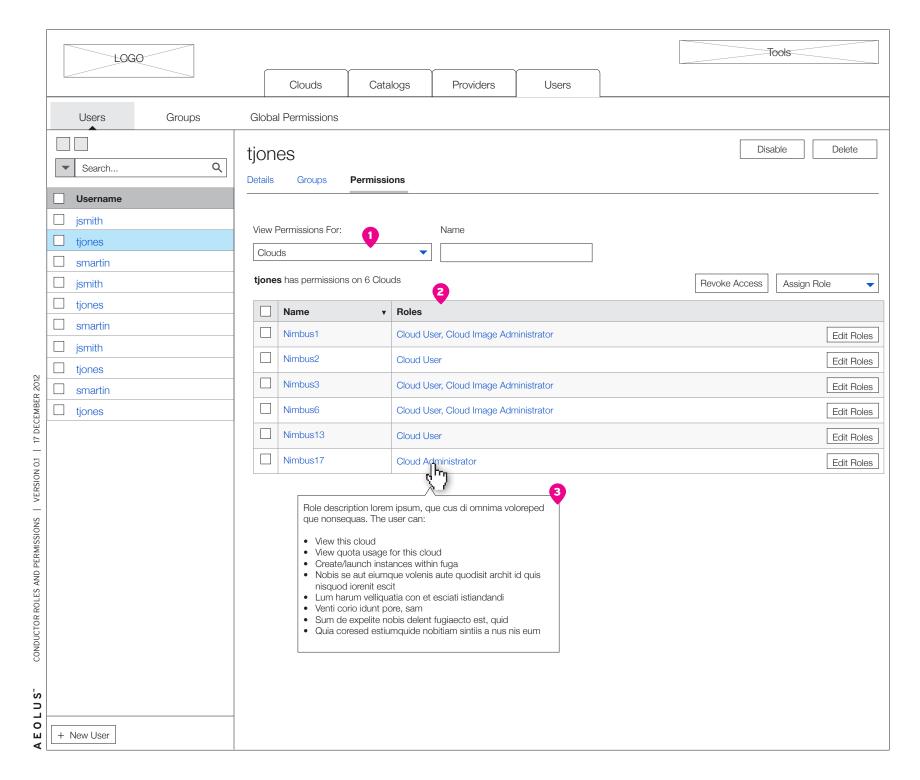
http://conductor.jaromircoufal.cz/new_conductor-ui_navigation-restructuring.html

The designs for roles and permissions in this document have no dependency on the adoption of this layout and navigation.



Example of user details in two-pane

1. Click on Permissions to view permissions for this user.



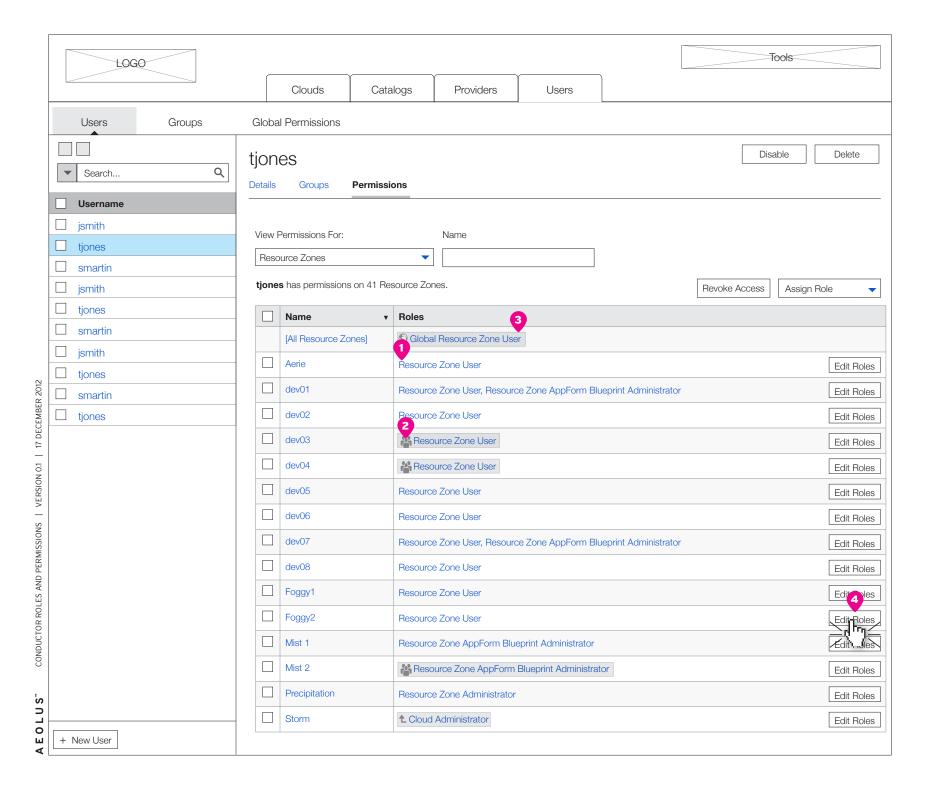
Permissions View

 Select to manage global permissions or permissions for each resource type.

View Permissions For:



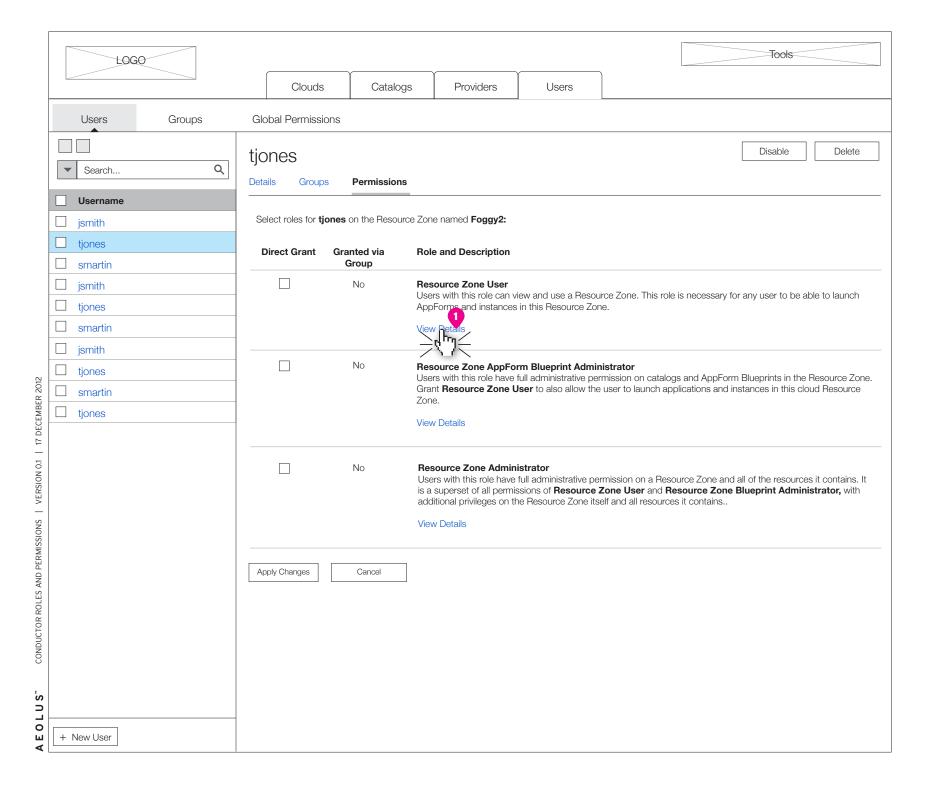
- 2. For resource types, the table shows all resources of the selected type, and any role a user has that grants permissions on that resource, regardless of how that permission is granted.
- 3. Users can pause or click on role names to see detailed role descriptions, and more info about how the role is granted (if not direct).



Types and sources of grant indicated visually

While the list provides a complete view of a user's access on resources, users should understand that only direct grants can be modified from this view.

- 1. Direct grants on a resource, which can be modified here, are shown without special treatment.
- 2. Non-direct grants (inherited roles on a parent resource, indirect grants via groups, and global roles) are distinguished with a special visual treatment; shown here with a color background and icon.
- 3. If a user has global permission that applies to the type of resource listed, it is noted first in the list.
- 4. Click Edit Roles to go to the Role assignments page and manage direct access.



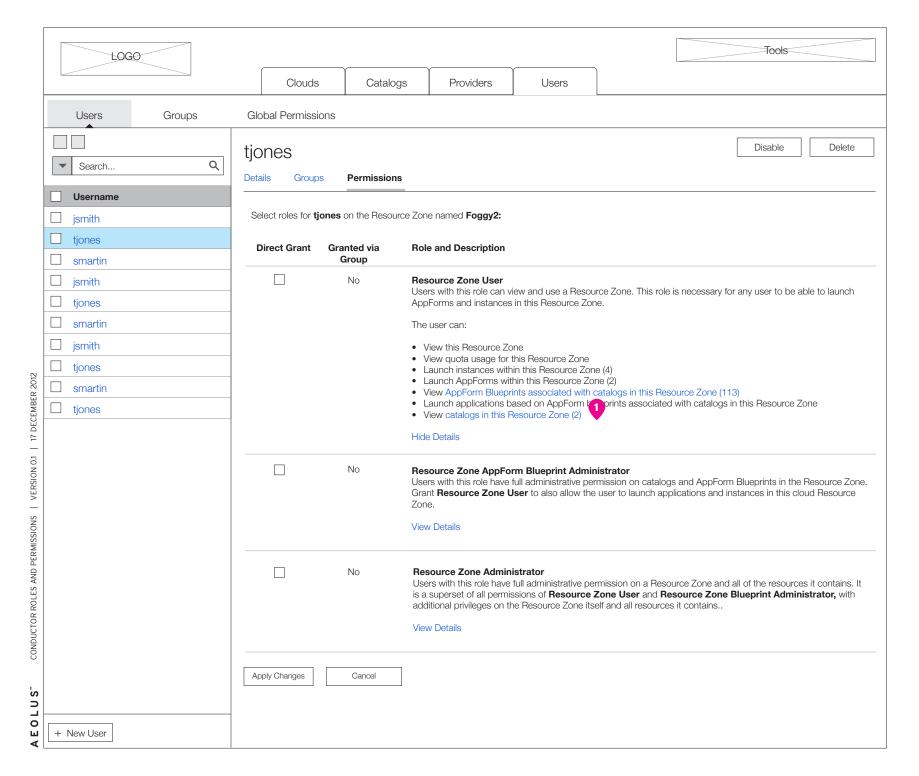
Example: No existing grants apply

Each role that can be granted directly is listed with a checkbox to grant the role.

A column indicates whether the role is also granted to any group the user is a member of.

There is no limit to the number of roles that may granted at once.

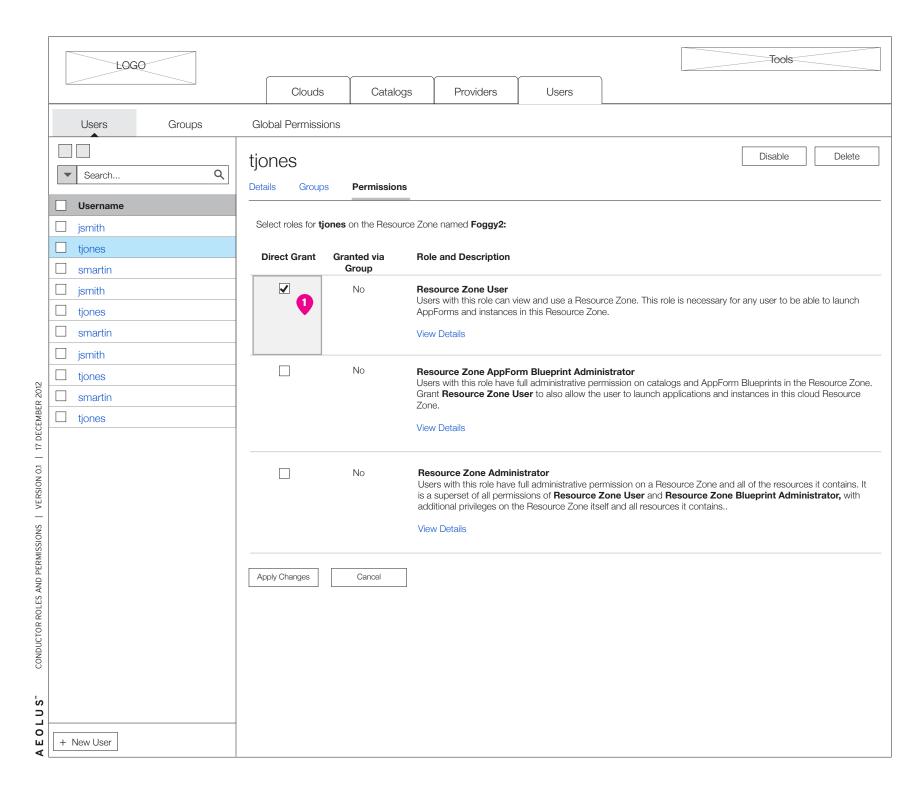
1. User can click 'View Details" to expand and see detailed permission info for a role.



Viewing role details

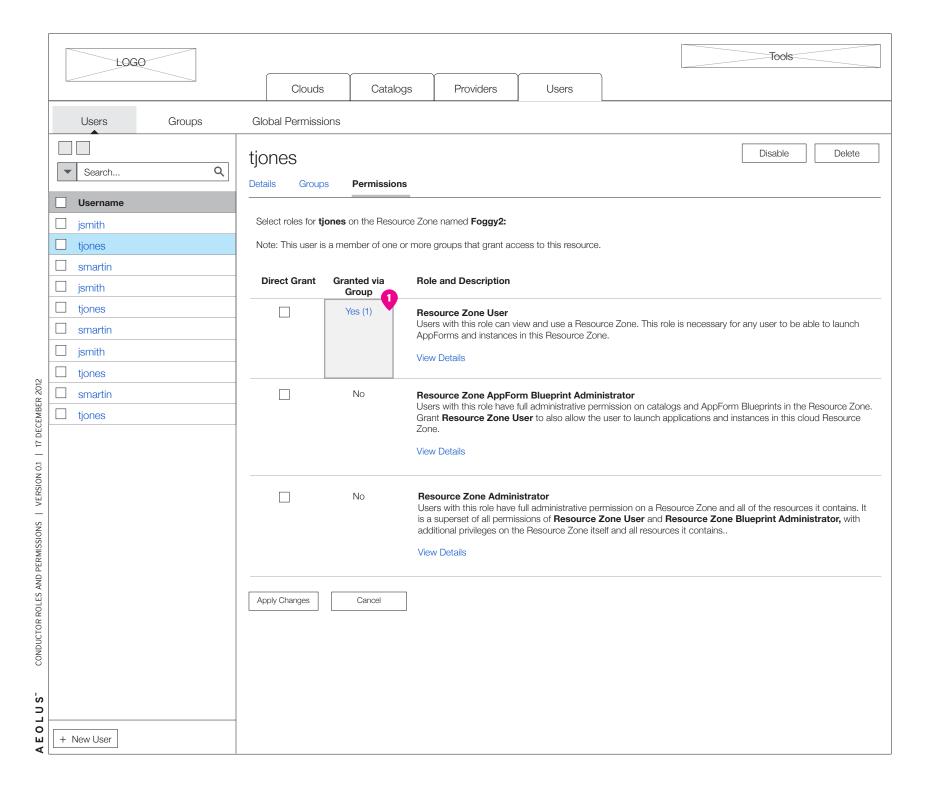
The detailed role description could provide links to "child" resources that are affected by this grant.

1. In this case if the user is granted Resource Zone User on Foggy2, we can see that they will be able to view two catalogs associated with Foggy2. The links would allow the user to know more about those catalogs before granting (or removing) access.



Example: Direct grant applied

1. A granted role is indicated with marked checkbox and darker background treatment.



Example: A role is already indirectly granted via a group membership

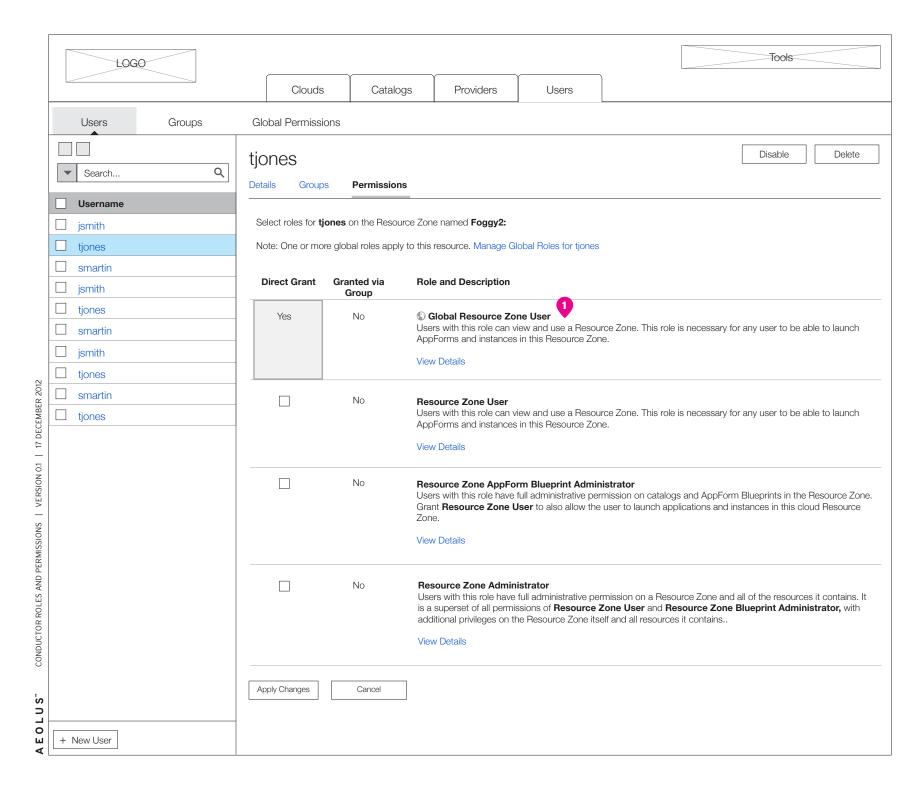
1. When a role is granted indirectly via one or more groups that the user is a member of, it is indicated on the role assignment page.



Users may simultaneously have a direct grant in addition to an indirect grant for the same role. This is just like having two keys for one door.

An example of how this can happen is when a user has a direct grant and is subsequently added to a group with the same role.

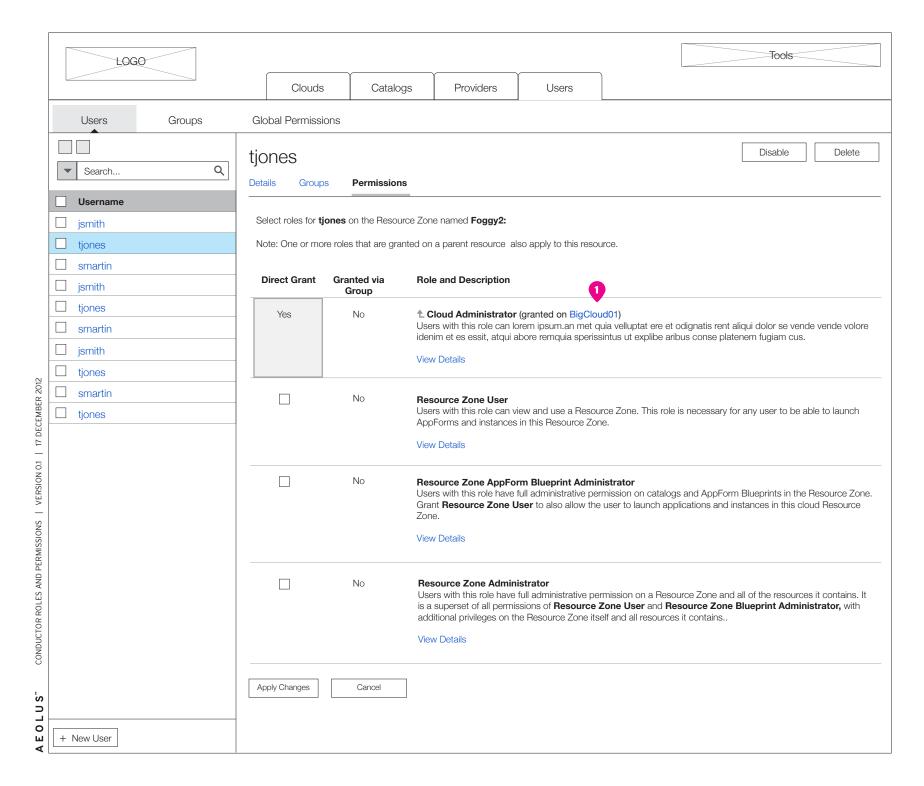
When checking permissions, all that matters is that there's at least one grant that gives the needed privilege.



Example: A global role applies

When a global role is granted either directly to the user, or indirectly via a group that the user is a member of, it is included on the role assignment page but is not editable.

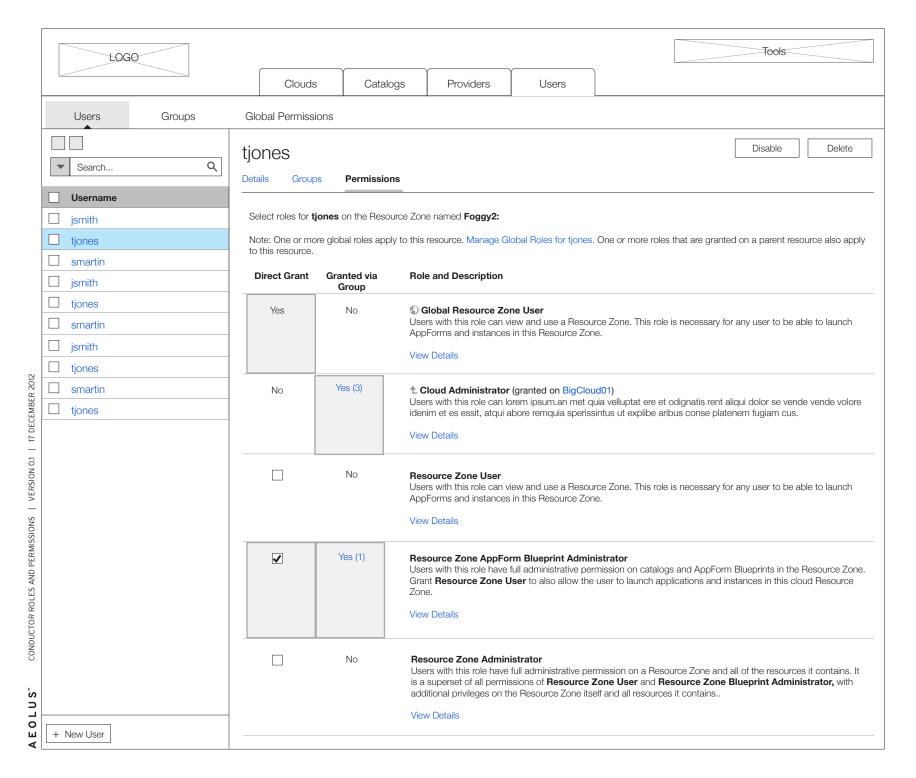
 This example shows that the user has Global Resource Zone User which grants permissions on all Resource Zones.



Example: A role is inherited via a grant on a parent resource

Similar to a global role, when permission is granted via a role on a parent resource (directly or indirectly), the inherited parent resource role is included on the role assignment page but is not editable.

 This example shows that the user has Cloud Administrator on the parent resource (cloud) named Big-Cloud01.



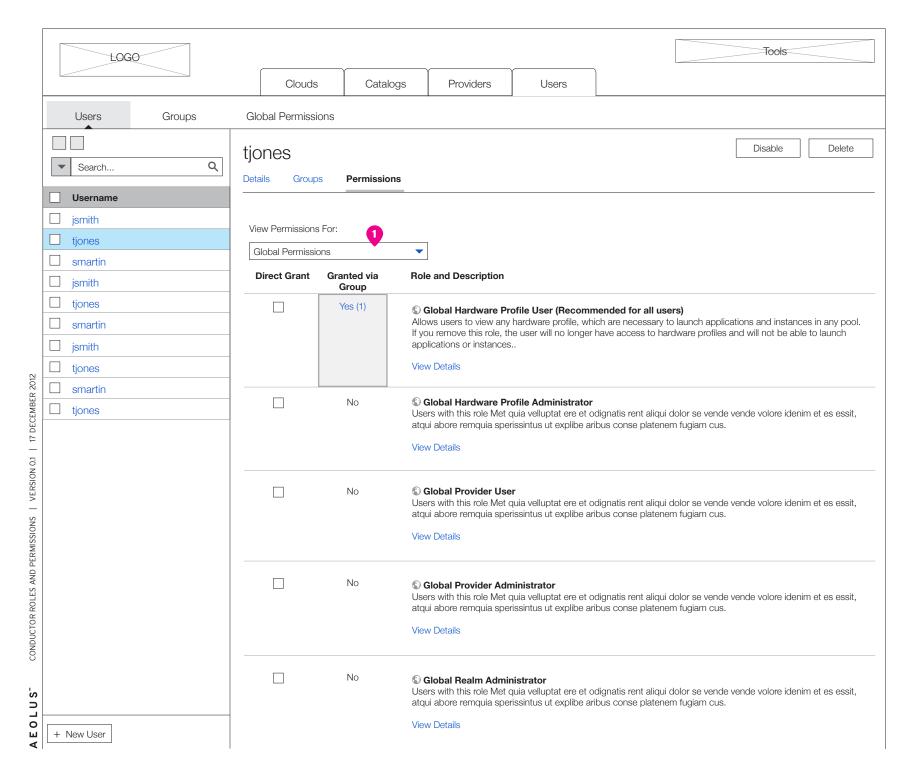
Example: Multiple grant types

As shown here, it is possible for a user to have a combination of global, inherited, and resource roles that are directly or indirectly granted.

Order for roles to display:

- 1. Global (if applicable)
- 2. Inherited (if applicable)
- 3. Resource

Within each set above, roles can be displayed in order of number of permissions, starting with fewest permissions.



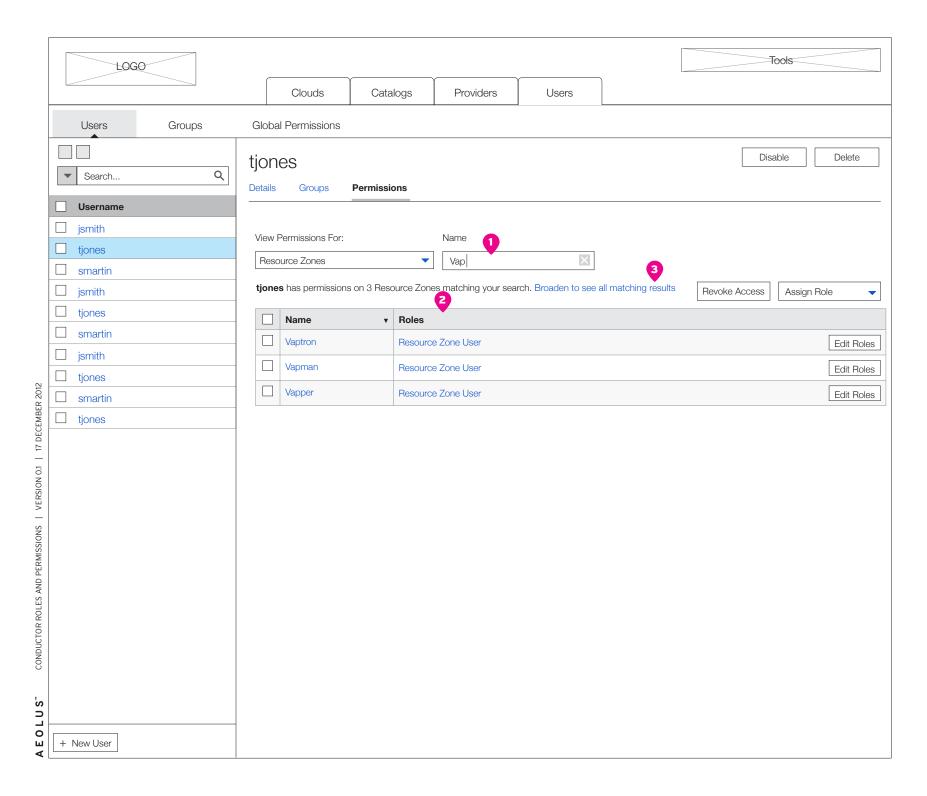
Setting global roles

1. The global roles view shows a list of all global roles, similar to any individual resource type. This is the default view when inspecting a user's permissions.

Not shown (off screen): As with other role assignment views, buttons at the bottom of the list allow the user to save or cancel changes.

Apply Changes		Cancel
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Search / Lookup from user permission list

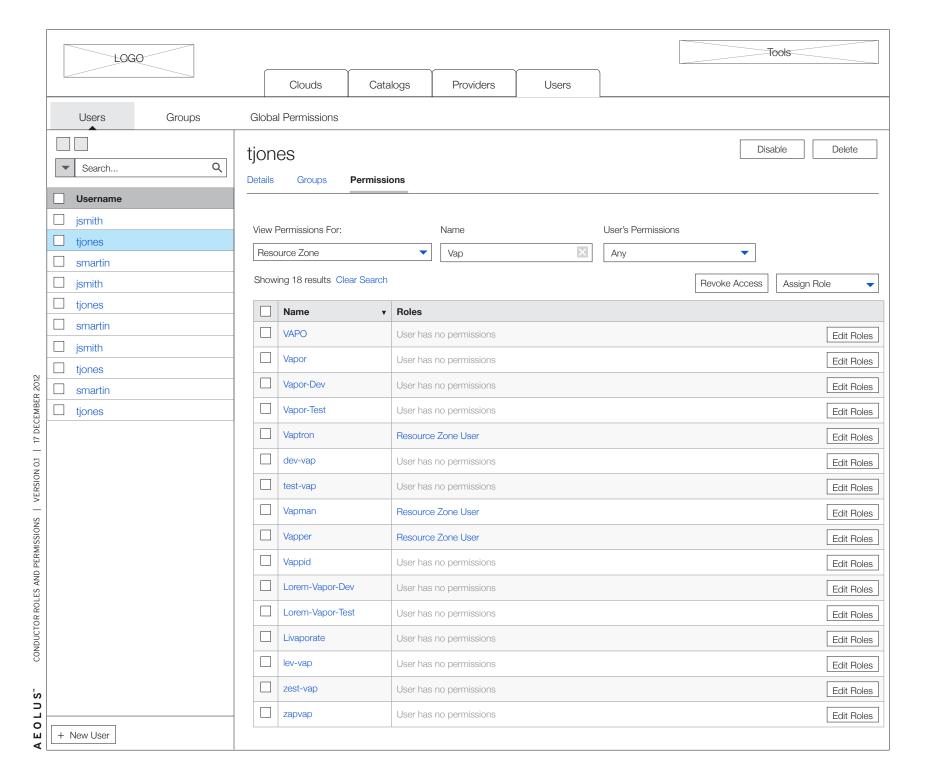


Resource permission lookup with dynamic list filtering

When a user or group has a large number of resources to which they have permission, it may be faster to type the name of a specific resource to find it in the list.

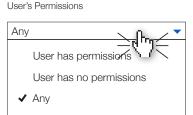
- 1. Type part of the name of a resource.
- 2. The list on the page updates dynamically to only show matches from the current list.
- 3. User can click a link to pivot to a broader list of all resources of this type whether tjones has permission or not.

This is particularly useful for the troubleshooting scenarios, when you want to ensure that a user or group has access to a resource, and then discover that they do not.



Show all matching resources

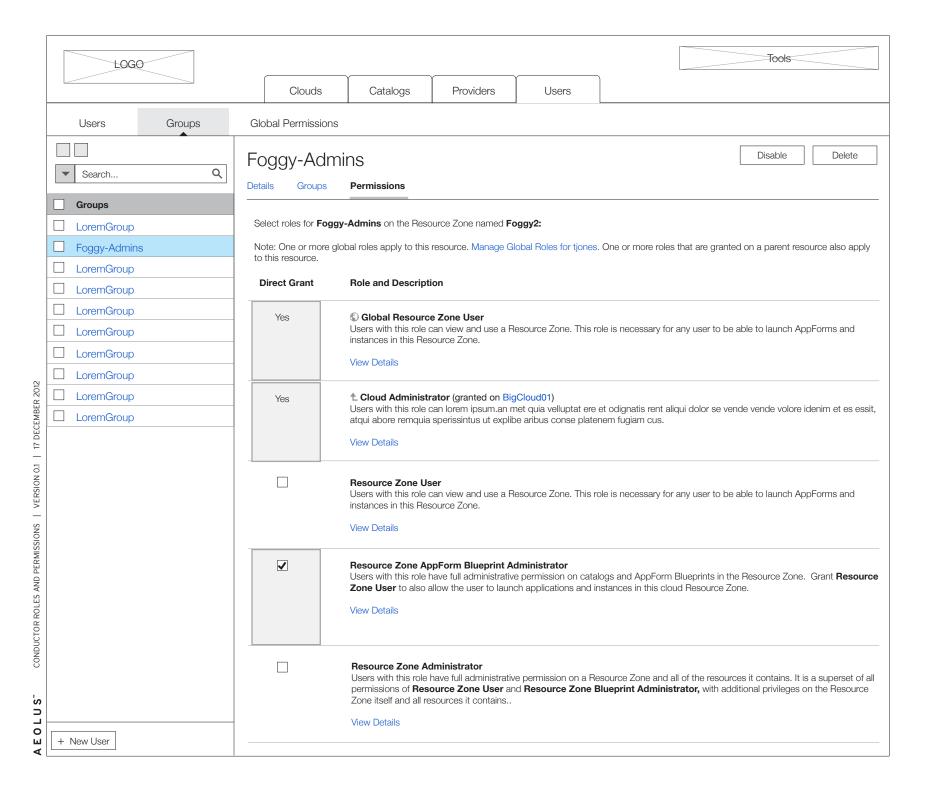
When the user selects to see all resources, an additional scoping filter is added, indicating that the interface is now showing more than just resources that the user has permissions on.



From this view, the user can

- Edit the roles for any of the results, including those where permissions are not currently granted
- Modify the query to see different results
- Click 'Clear Search' to return to the default state

Managing roles for a group

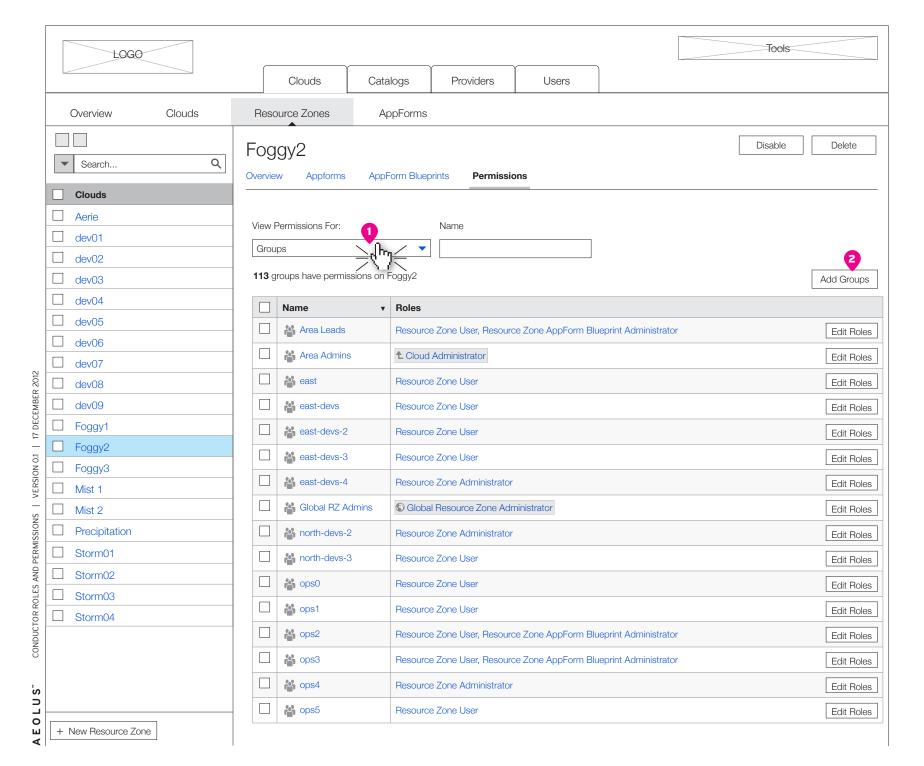


Role Assignment page for group

Role assignment for group is nearly identical to role assignment on users, except the "Granted via Group" column is not present because groups cannot belong to other groups.

This page shows a group that has a global role, a role on a parent resource, and one resource role selected.

Managing roles on resources

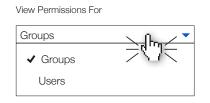


Role assignment on resource

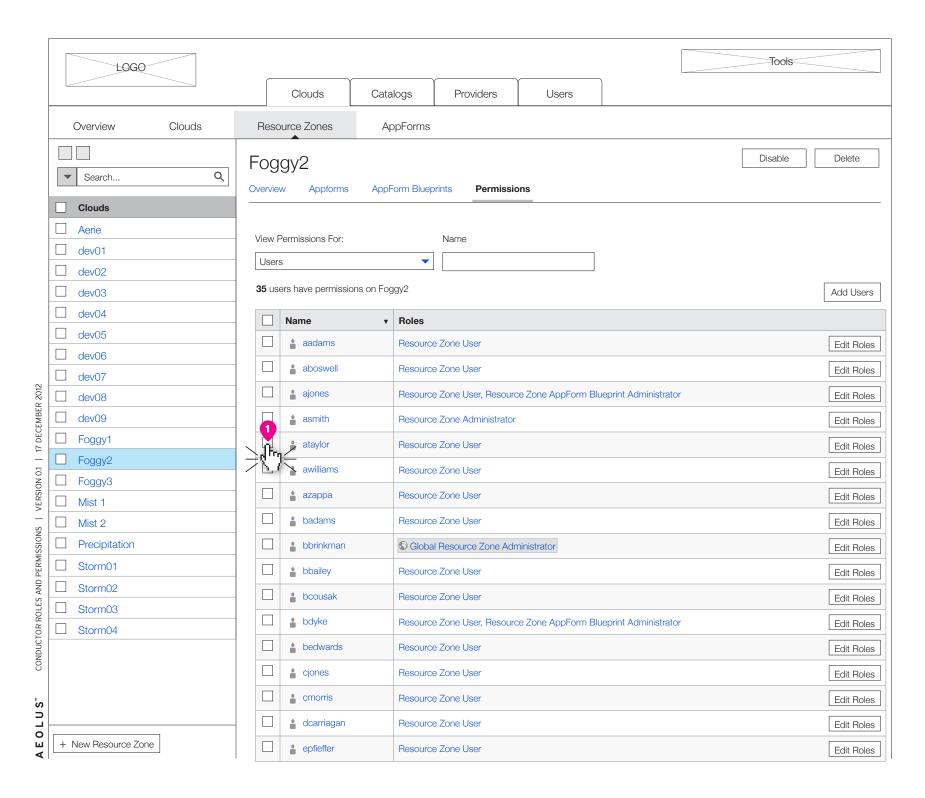
Users can assign roles from the resource perspective by navigating to the permissions view for the resource.

Using a similar layout as the user or group perspective, here you can see who has what access in a simple grid.

1. The default view is to see all groups with permissions, users can switch to the user view to see all users with permissions.



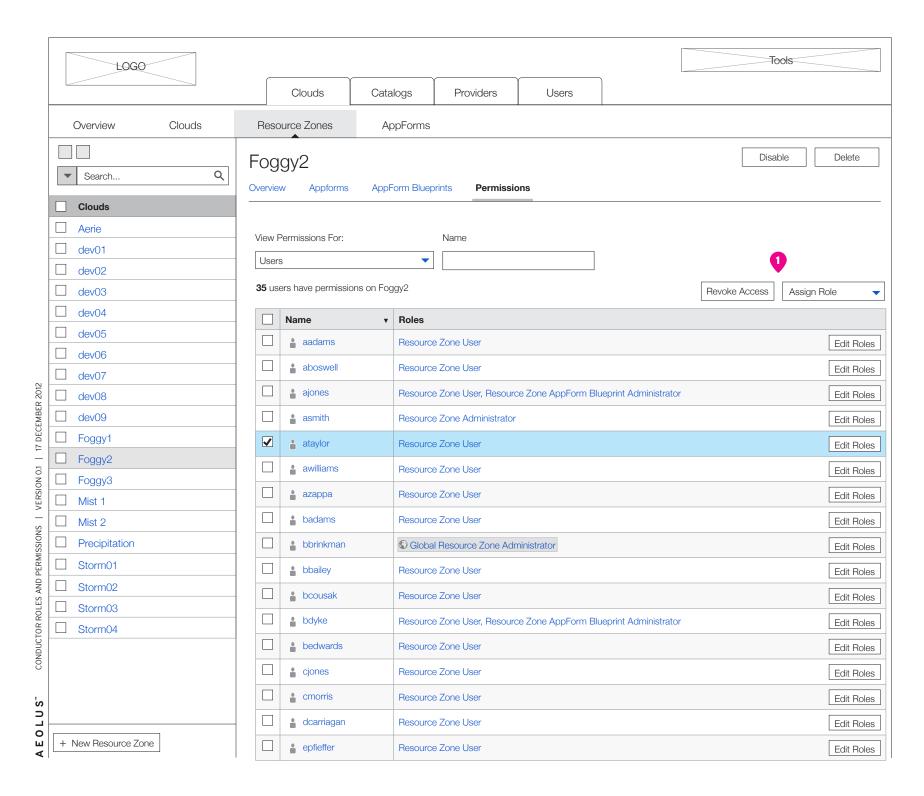
2. Adding a group shows a group picker interface.



Role assignment on resource

Similar to the view for Groups, the Users view shows all the users who have permissions and their roles.

1. Clicking a checkbox shows bulk actions (next page).

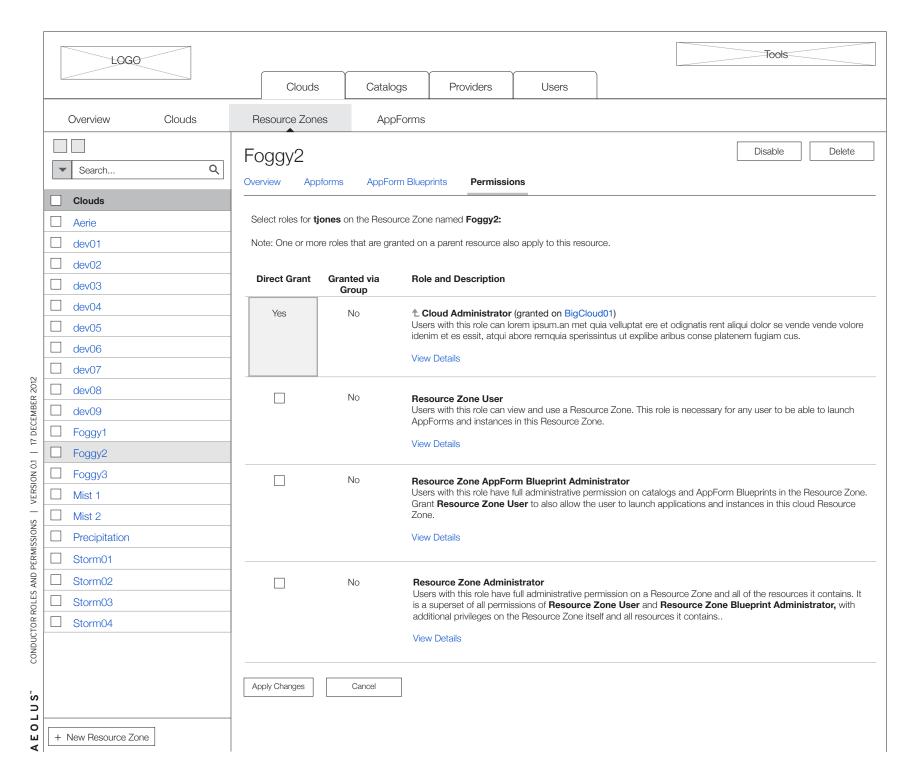


Bulk actions

 Select any number of users or groups and revoke access or assign roles in bulk.



Redundant assignments should be ignored silently and exceptions should be handled gracefully.



The role assignment page is identical whether entering from the user/group perspective, or from the resource perspective.

Summary

This document shows how role mapping between users/groups and resources is managed...

From a user's perspective

Provide a complete view of the permissions a user has on a given resource, including by way of

- direct grants to the user
- indirect grants to a group to which the user belongs
- inherited grants, which are roles granted on a parent resource, which includes permission on the child object
- global grants, which are roles granted globally on all resources of a type, system-wide.

Provide a way to modify permissions that are directly granted to a user on a given resource

From a group's perspective

Provide a complete view of the permissions a group has on a given resource, including by way of

- direct grants to the group
- inherited grants, which are roles granted on a parent resource, which includes permission on the child object
- global grants, which are roles granted globally on all resources of a type, system-wide.

Provide a way to modify permissions that are directly granted to a group on a given resource

From a resource's perspective

Provide a complete view of the permissions any user or group has on a given resource, including by way of

- direct grants to the resource
- inherited grants, which are roles granted on a parent resource, which includes permission on the child object
- global grants, which are roles granted globally on all resources of a type, system-wide.

Provide a way to modify permissions that are directly granted on a given resource