

# Research Coordination Use Cases

July 28, 2019

Version 1.0

Beyond supporting individual research projects, the public research computing community can also serve as a gathering point for researchers who share common research topics or methods. The use cases in this area describe how researchers can organize themselves as research communities and coordinate their activities for the greater good.

[RC-01: Participate in a research discussion forum](#)

[RC-02: Manage usage within an allocation](#)

[RC-03: Install software on a resource for use by a research community](#)

[RC-04: Find where a specific application or service is available within the system](#)

[History](#)

## RC-01: Participate in a research discussion forum

A **researcher** wants to participate in an online, research-specific discussion forum. The researcher has already registered with the community.

In most cases, the researcher wants to experience it as follows.

1. First, the researcher visits the community website and looks for (and finds) a section for discussion forums.
2. Then, the researcher searches or browses the available discussion forums looking for any related to his/her research.
3. When the researcher finds a suitable forum, he/she is able to view topic threads created by other researchers, add responses to existing threads, create new topic threads, and manage personal email notifications for activity in the forum and/or individual topic threads.

It'll always be like that, except when the researcher doesn't find a relevant forum in Step 2. In that case, the researcher should have a way to propose a new discussion forum on a topic of interest to him/her.

We'll take any solution, as long as...

1. The solution should use the normal community identity and authentication mechanism.
2. Each discussion forum must support moderation functions (review and approval or rejection of individual posts) for designated researchers and staff.
3. The solution should not require the researcher to have an active or prior community allocation.

## RC-02: Manage usage within an allocation

A **researcher**, **campus champion**, or **educator** needs to manage the use of the resources in a community allocation by individual project members. The researcher/champion/educator (hereafter referred to as the project manager) has registered with the community, already has an approved and active allocation, and has already added other people to the allocation project. The allocation will frequently be a community allocation (researchers and campus champions) or an education allocation (educators), but it could be any kind.

In most cases, the project manager wants to experience it as follows.

1. First, the project manager logs into the community user portal, views his/her active projects, and selects the project to manage.
2. Then, he/she requests the per-user usage for the project and is shown a view of the project's resource usage broken down by members of the allocation project.
3. Then, he/she selects an individual project member and sets a limit on that member's use of the allocation.
4. Later, if an individual project member reaches the usage limit set by the project manager, he/she will be prevented from further using the allocation and the project lead will need to set a new limit for him/her to continue using the allocation.

We'll take any solution, as long as...

1. In Step 2, the usage displayed for each project member is expressed either using service units consumed or as a burn rate.
2. In Step 3, the limit for project members is expressed either using total service units or as a burn rate.

### RC-03: Install software on a resource for use by a research community

A **researcher** wants to install software on a community resource for use by a research community. The researcher has already registered with the community, and the members of the research community have (or will have) allocations on the resource.

In most cases, the researcher wants to experience it as follows.

1. First, the researcher visits the community website and identifies one or more community resources (“target resources”) where the software would be useful to his/her research community.
2. Then, the researcher uses the community website to find the answers to the following questions. (1) Does the target resource offer a Community Software Areas (CSA)? (2) Does the target resource already have the desired software available in a CSA? (3) What are the specific procedures for adding software to the target resource’s CSA?
3. Then, the researcher follows the target resource’s procedure to obtain a CSA and to install their software.
4. Finally, when the software is ready on a given resource, the researcher informs the target resource’s administrators of its availability and provides details that the administrators can use to publish availability of the software on the community website. (The researcher may also, of course, inform his/her research community via other channels.)

We’ll take any solution, as long as...

1. The solution should not require the researcher to have an active or prior community allocation. (The researcher might, however, be required to request a startup allocation during or prior to Steps 2 or 4 for the purpose of gaining login and file transfer access to the target resource(s).)
2. In Step 2, the researcher can answer the three questions as straightforward as possible via a search or browse interface, as opposed to searching the website manually.

### RC-04: Find where a specific application or service is available within the system

A **researcher, educator, science gateway developer, or application developer** (hereafter referred to as a “**community member**”) needs to find where a specific application or service is available within the system.

In most cases, the community member wants to experience this as follows.

1. The community member visits the community website and navigates to a page allowing a search for applications and services.
2. The community member enters the name of the application or service and clicks “Search.”

3. The community member receives a page listing locations within the system where the application or service is available for use.

We'll take any solution as long as the following are true.

1. In Step 1, the navigation should be straightforward.
2. In Step 3, the results should span the following types of locations: SP resources, science gateways, cloud images, and/or cloud services (software-as-a-service).
3. In Step 3, the results should include information about how to access the application or service at each location.

## History

	Version	Date	Changes	Author
Entire Document	1.0	7/28/2019	Collated use cases 01-04 for the first time and removed unnecessary XSEDE terminology. These were originally drafted between 8/2017 and 10/2018.	L. Liming