

# FAQ

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## General Questions

### What is the Rapid Access Cloud?

Cybera's [Rapid Access Cloud](#) provides free cloud computing resources for Canadian academics, researchers, non-profits, and other small-to-medium-sized organizations that are not covered by the national [DAIR program](#).

The Rapid Access Cloud is geared towards the research and development of products that are dependent on, or could benefit from, cloud infrastructure. It is also available for rapid prototyping of experimental procedures. This allows users to test their new implementation ideas with virtually no capital investment, in order to evaluate them or the procedures they would follow. The Rapid Access Cloud is not available for hosting of production services on an ongoing basis.

### How do I sign up?

Go to [rac-portal.cybera.ca](http://rac-portal.cybera.ca) to create your user account. You will need a Google ID to sign up. Your username for the Rapid Access Cloud will automatically be set as the email address that you submit.

### Can I have more than one user account?

Users are limited to one account only. Using multiple email addresses to obtain multiple accounts is not permitted. If you need additional resources, please contact the [Rapid Access Cloud administrators](#).

### How do I log in to the cloud?

Go to [cloud.cybera.ca](http://cloud.cybera.ca) and log in with the username (which is your email address) you generated at the [Rapid Access Cloud portal](#).

### I've never used OpenStack - how do I get started?

We highly recommend working through Cybera's [Basic Guide](#) in order to learn how to launch your first instance and avoid the most common mistakes of first-time users. For more advanced topics, please see the [Advanced Guide](#).

### How do I change my password? What if I forget my password?

You can change your password by logging into the Rapid Access Cloud and clicking on your username in the top right (beside the "sign out" link). Under Settings, choose "change password".

If you forget your password, please contact the [Rapid Access Cloud administrators](#).

## Who do I speak to if I have questions of a technical / non-technical nature?

Please contact the [Rapid Access Cloud administrators](#).

## Where is the Rapid Access Cloud hosted?

The Rapid Access Cloud is hosted in Calgary and Edmonton, Alberta.

## Can I use the Rapid Access Cloud instead of DAIR?

SMEs can only be accommodated if they have already applied to CANARIE's [DAIR](#) program and were not successful with their application.

## How do DAIR and the Rapid Access Cloud differ?

The following is a summary of the two cloud offerings:

	Rapid Access Cloud	DAIR
Provider	Cybera	CANARIE
Hosted in	Canada	Canada
Target audience	Researchers, not-for-profits, anyone who wants to experiment with cloud computing	SMEs, not-for-profits, select researchers*
Cloud backend	OpenStack	OpenStack
Resources	Can change dynamically	Consistent throughout usage term
Applicable activities	Pre-profit development work and rapid prototyping carried out by Albertan organizations or researchers	Pre-profit development work carried out by Canadian organizations or researchers

\*researchers funded through the NEP or RPI programs

Examples of use cases that would not be eligible for DAIR, but could potentially be eligible for the Rapid Access Cloud, include :

- Projects that directly support cloud-based infrastructure innovation; DAIR infrastructure is not available for testing cloud innovation, just the cloud services provided by the infrastructure
- Innovations that require large numbers of resources for short periods of time
- Projects that require the ability to reconfigure and test new leading edge cloud configurations; DAIR (and other cloud services) are more conservative production class environments designed to continuously serve users
- Interoperability testing with other prototyping and commercial cloud infrastructures in Alberta, and elsewhere
- Instant "what-if" technology test scenarios by Alberta researchers and innovators that cannot wait for test-bed access

## Technical Questions

### How does the Rapid Access Cloud differ from other commercial cloud providers, such as Amazon Web Services?

The Rapid Access Cloud is an Infrastructure-as-a-Service provider, just like Amazon Web Services. It enables the use of images, block storage, snapshots, and exporting of images. The Rapid Access Cloud also provides Object Storage similar to AWS's S3 service. Unlike AWS, the Rapid Access Cloud does not provide Platform-as-a-Service (PaaS) or PaaS tools, such as Amazon RDS and Amazon DynamoDB.

Two additional differences are that the Rapid Access Cloud is located exclusively in Alberta, whereas commercial cloud providers are typically spread across Canada if not internationally. Secondly, the Rapid Access Cloud is not for running services in production, but rather for development and prototyping.

### What platform does the Rapid Access Cloud run on?

The Rapid Access Cloud utilizes OpenStack to run its infrastructure.

### What are the default resources available to new users?

The default resources on the Rapid Access Cloud includes:

- 8 vcores, 8 instances, 8 GB RAM, 10 volumes, 500 GB storage
- Each instance also gets 1 public IPv6 address automatically

## Can I have more resources/quota?

We try to be as accommodating as possible to requests for more resources, provided you can demonstrate why you need more resources, and have begun testing your system. Please contact the [Rapid Access Cloud administrators](#) to request a resource increase.

If you would like a floating IP address, this can be requested via our dashboard under the "RAC" section in the Quota Change Request page. More information on this can be found in our [Basic Guide](#).

## How long will I be granted access to the Rapid Access Cloud?

We use one year as a guideline for how long access is granted to the Rapid Access Cloud. At the end of the allotted year, we ask users if they would like to extend their usage beyond that timeframe. Should additional resources be required, contact the [Rapid Access Cloud administrators](#).

## Can I use IPv6 to access the Rapid Access Cloud?

Yes, the Rapid Access Cloud is fully IPv6 compatible, and many ISPs in Canada have started offering IPv6 service. You can check online whether your connection is IPv6 enabled, for example [here](#). If your connection is not IPv6 enabled, you can create an IPv6 tunnel, such as through [Hurricane Electric](#). For more information, see Cybera's [Advanced Guide](#).

## Why can't I make images public on the Rapid Access Cloud?

By default, any OS image uploaded to the Rapid Access Cloud cannot be made public to other users. However, sharing images between projects is possible using the glance member-\* commands. If you have an image you'd like to share with all Rapid Access Cloud users, please contact the [Rapid Access Cloud administrators](#).

## What is the default username for my VM?

Each Linux-based image has a default user that will have your SSH key injected when you create your image. You'll want to use that username at the instance's IP address in order to log in. (eg. ssh centos@199.116.235.57)

- Ubuntu based images: 'ubuntu'
- Fedora based images: 'fedora'
- CentOS based images: 'centos'
- Debian based images: 'debian'

## Where should I store my data?

Cybera recommends that users store their data in volumes and not on the instance itself. The nature of instances are ephemeral, so any data left in an instance when it is destroyed is deleted as well. On the other hand, data stored on volumes persists beyond the lifetime of the instance. As such, we recommend that volumes are used for more permanent data storage and only the operating system and application data should be stored on the ephemeral (VM) disk. Read more about how to use volumes in the [Advanced Guide](#).

## Should I back-up my data?

The Cybera Rapid Access Cloud is offered on a best-effort basis. It is the users' responsibility to ensure appropriate backups of all their data are made. While Cybera's record for uptime and data-loss is very good, we strongly encourage all of our users to ensure regular backups are made. See the [Basic Guide](#) for more information.

## Why can't I access my instance?

There is most likely a problem with the security group or the keypair. Please see the [Basic Guide](#) on security groups and keypairs.

## Do you provide access to GPUs?

Yes, we do! Read more [here](#).