

Logging In to an Instance

You can log in to an instance using the Web Shell or Web Desktop, if available, as well as log in using SSH.

To learn about sharing your instance with other users via SSH or VNC, see [Sharing an Instance with Other Users](#). For a basic introduction to instances and images, see [Using Instances](#).

Web Shell

1. In Atmosphere, click **Projects** at the top and then click to open the project to use.
2. Click the name of the instance that is in Active status.
3. Click **Open Web Shell** in the Actions menu.



If unavailable, try refreshing the page. If it is still not enabled, log in using SSH (steps for both below) or Web Desktop, if available. You also may want to read [Why can't I open the Web Shell?](#)

4. Enter your CyVerse username and password.
5. Click **Connect** and then enter your password again.

Web Desktop

Atmosphere's Web Desktop uses a VNC (Virtual Network Computing) that allows Atmosphere users to access an image you own in a graphical desktop environment. The image is run on CyVerse resources but accessed from your local machine. The underlying protocol works across operating systems and platforms, and allows remote users to access, use, and share a computer system. There are many free VNC clients or viewers, some of which are mentioned here.

Not all instances provide VNC access:

- The instance must be running in Active status.
- You must own the instance.
- The image must have a graphical interface (most will have "GUI" in the title).

For more information, see [Why can't I open the Web Desktop for my instance](#) on the Atmosphere FAQs page.

1. Click **Projects** on the menu bar and then click the project with the instance to view.
2. Click the instance name to open the instance.
3. Click **Web Desktop** in the Actions menu.



If Web Desktop is not available, try refreshing the page. If still not available, log in using SSH (steps for both below) or Web Shell. You also may want to read [Why can't I open the Web Shell?](#) on the FAQs page.

4. If prompted to install updates, cancel out of the prompt.
5. To terminate the session, click **Send CtrlAltDel** and then click **Yes** to shut down the system.

Changing screen resolution

Changing screen resolution for the VNC Viewer

1. In the VNC Viewer window, click the **System** menu, point to **Preferences**, and then click **Screen Resolution**.
2. In the Screen Resolution Preferences window, change the resolution, click **Apply** and then click **Close**.

Changing screen resolution using the command-line

Sometimes the Screen Resolution or Display Preferences may not work. You also can change the resolution of the using the command-line. For example, to change the resolution to 1024x768, use the following **xrandr** command within a terminal of your VNC session:

Example for changing resolution to 1024x768:

```
xrandr -s 1024x768
```

Only certain screen resolutions can be used by xrandr. To see a list of supported screen resolutions, enter 'xrandr' without any arguments.

▼ Example

```
vm111-111:~> xrandr
SZ:      Pixels      Physical      Refresh
*0      1024 x 768      ( 260mm x 195mm ) *0
1        800 x 600      ( 203mm x 152mm ) 0
2       1280 x 800      ( 325mm x 203mm ) 0
3       1280 x 960      ( 325mm x 244mm ) 0
4       1280 x 1024     ( 325mm x 260mm ) 0
5       1680 x 1050     ( 427mm x 267mm ) 0
6       1920 x 1080     ( 488mm x 274mm ) 0
7       1920 x 1200     ( 488mm x 305mm ) 0
8       3360 x 1050     ( 853mm x 267mm ) 0
9        1024 x 700     ( 260mm x 178mm ) 0
10      1200 x 740      ( 305mm x 188mm ) 0
11      1600 x 1000     ( 406mm x 254mm ) 0
12      1600 x 1200     ( 406mm x 305mm ) 0
13     3200 x 1000     ( 813mm x 254mm ) 0
14     3200 x 1200     ( 813mm x 305mm ) 0
```

Troubleshooting the VNC Viewer

A good source of information for issues with VNC Viewer or other Atmosphere issues is the [Ask CyVerse questions about Atmosphere](#). The [Atmosphere FAQs](#) page also has some helpful information.

Restarting the VNC Viewer

Occasionally, there may be an issue in which the VNC connects but displays no desktop, OR the resumed instance's VNC session used to work (e.g., before suspending), but does not work now

We have seen some cases where the VNC web desktop session is not fully functional, although the VNC remote viewer and Web-based VNC viewer connect properly. Also, when suspended instances are resumed, the instance's IP address may change, causing the VNC server to fail; in this situation, you will need to restart the VNC web desktop server session.

1. Log in to the instance via SSH and sudo to root:
2. Sudo to root:

```
sudo su -
```

3. Kill all processes that contain either "vnc" or "Xvnc":

```
ps aux|grep vnc|grep -v grep|awk '{print $2}' |xargs kill -9
```
4. Exit sudo to return to your user account:

```
exit
```

5. Relaunch vncserver by typing:

```
vncserver : 1
```

6. (Optional) If you encounter errors about the existence of files, you might need to delete (i.e., **rm**) the following files and attempt to relaunch the vncserver:

- /tmp/.X1-lock
- /tmp/.X11-unix/X1

7. Attempt to reconnect to VNC; if the error still persists (sometimes it takes a couple of times), repeat the steps a few times.

▼ [Feedback or questions about Atmosphere?](#)

Go to [Ask CyVerse](#) for Atmosphere, or click **Feedback & Support** at the bottom right of the screen.



Having problems with your instance?

You can [report a problem with an Atmosphere instance](#).

SSH login

If Web Shell or Web Desktop are not available, you can log in to your instance via SSH for your operating system. To add a public SSH key, see [Changing Settings and Configuring a Public SSH Key](#).



NOT FOR INTERACTIVE PROGRAMS

This method is not recommended for interactive programs that run for an extended period of time and may result in network connection timeout.

Instead, use either:

- Web Desktop (see previous section).
- A utility such as Screen or TMUX, which may require installation in your instance (for more information, see [Keep Your SSH Session Running When You Disconnect](#) or [TMUX – The Terminal Multiplexer](#)).
- Web Shell (new UI only), which will preserve connections (see previous section).

Mac OS X SSH login

1. Click **Projects** and then click the project with the instance to use.
2. In the Instances list, copy the IP address for the instance.
3. In a terminal window for Mac OS X:
 - a. Enter the following command, using your CyVerse username and password, and the instance IP address you copied in step 3:

```
ssh your_CyVerseusername@ip_address
```

▼ [Example](#)

```
ssh kkennedy@328.196.142.3
```

- b. If prompted to continue connecting, enter **yes**.
- c. Press **Enter**.

Windows SSH login

For Windows OS, use **PuTTY**, an SSH client for Windows. For a useful guide to using PuTTY, see [PuTTY – Remote Terminal and SSH Connectivity](#).

1. If you haven't already done so, [download the PuTTY application](#).

2. In Atmosphere, click **Projects** and then click the project with the instance to use.
3. In the Instances list, copy the IP address for the instance.
4. Launch PuTTY.
5. Enter your username and paste the IP address.
6. Click **Connect**.
7. Enter your password and click **Enter**.

Windows SSH login using PuTTY

You can use PuTTY for logging in to an SSH window on a Windows operating system. PuTTY is an SSH client for Windows, and operates a bit differently than Terminal to make the initial SSH connection. For a useful guide to using PuTTY, see [PuTTY – Remote Terminal and SSH Connectivity](#).

1. Copy the instance IP address, either from the confirmation email or from the IP address displayed in your My Instances list.
2. [Download the PuTTY application](#).
3. Launch PuTTY.
4. Enter your username.
5. Enter the IP address, either copied from your My Instances list or from the confirmation email, and then click **Connect**.
6. Enter your password and click **Enter**.

Need help?

Click  at the bottom right of the screen to chat with an Atmosphere support team member during business hours. You also can go to [Ask CyVerse](#) for Atmosphere, or click **Feedback & Support** at the bottom of the screen.

Helpful Links

On this page:

- [Web Shell](#)
- [Web Desktop](#)
 - [Changing screen resolution](#)
 - [Troubleshooting the VNC Viewer](#)
- [SSH login](#)
 - [Mac OS X SSH login](#)
 - [Windows SSH login](#)
- [Need help?](#)

Related pages:

- [Why can't I open the Web Shell?](#)
- [Download the standalone VNC viewer from RealVNC](#)
- [Why can't I open the Web Desktop \(VNC\) for my instance?](#)
- [Report a problem with an Atmosphere instance](#)
- [Ask CyVerse questions about Atmosphere](#)
- [Using VNC Viewer to Connect to an Atmosphere VM](#)
- [Atmosphere FAQs](#)
- [Sharing an Instance with Other Users](#)

Ephemeral space on instance in /scratch

When you access your instance, you may need additional space to do your analysis or work. On every instance, there is additional, ephemeral space located in /scratch directory. The size of that space will depend on the instance size.

The data in the /scratch directory should be considered ephemeral and available only as long as the instance is active. If the instance stops running for any reason, the data may be lost.

To store persistent data, you should use volumes. See [Using Volumes](#).