

## MGMT - Virtualization A1

- Your experience with J2 and the most challenging parts (if any)
- A brief comparison to the Google Cloud Platform

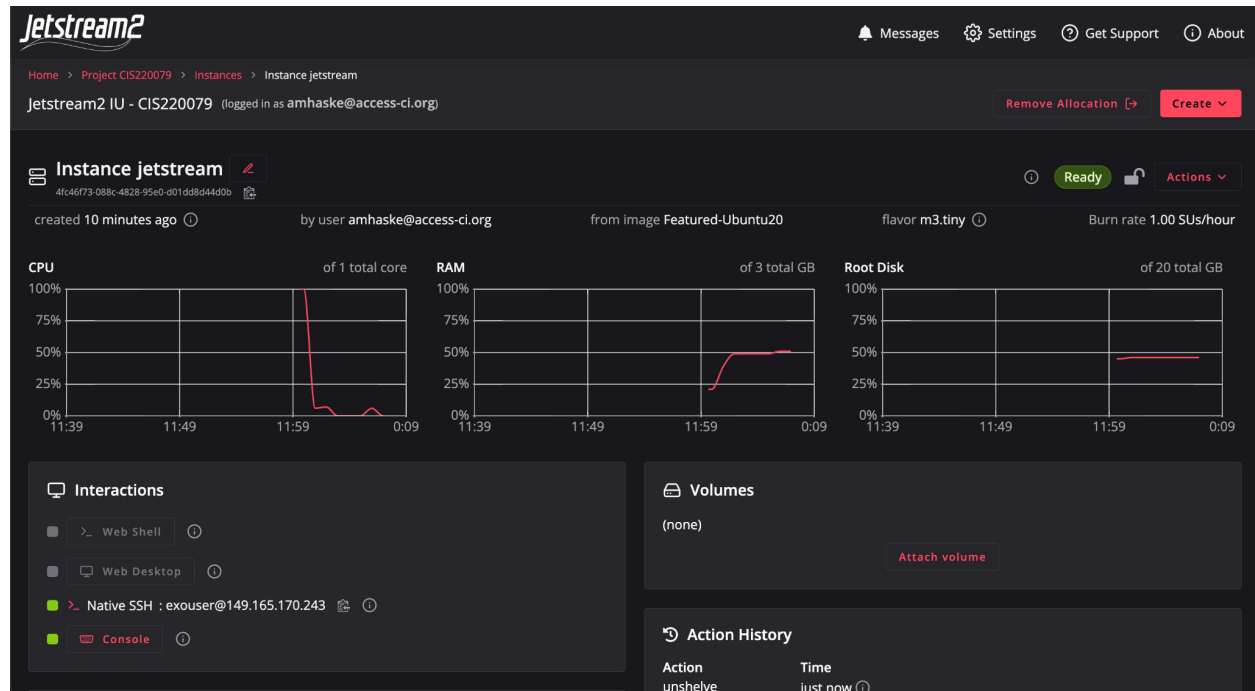
The most challenging parts of using Jetstream2 might be configuring the platform and understanding how to use it effectively for specific tasks. My personal experience with Jetstream 2 was quite challenging to create instances and run them without any restrictions. A web shell is not UX-friendly, as well as some of the commands, are quite difficult to understand. Comparatively, the Google Cloud Platform has a wider range of services and tools available but may be more geared towards businesses rather than research. Overall, both platforms offer valuable resources for users seeking cloud-based computing and data solutions.

In terms of similarity, both platforms offer Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) models. This means that users can provision and manage virtual machines, storage, and networking resources in a scalable and flexible manner. Both platforms also offer a range of tools and services for managing and deploying applications, including APIs, command-line tools, and web-based interfaces.

One major difference between Jetstream2 and GCP is their target audience. Jetstream2 is primarily designed for researchers in the academic community, providing access to powerful computing resources for scientific projects. GCP, on the other hand, caters to a wider range of users, from small businesses to large enterprises. Another difference is the pricing model. Jetstream2 offers a more predictable and transparent pricing model with a pay-per-use approach, while GCP has a more complex pricing structure with various discounts and pricing tiers based on usage volume. Finally, Jetstream2's focus on research computing means it has a strong emphasis on data privacy and security, while GCP has a wider range of security certifications and compliance standards for enterprise use cases.

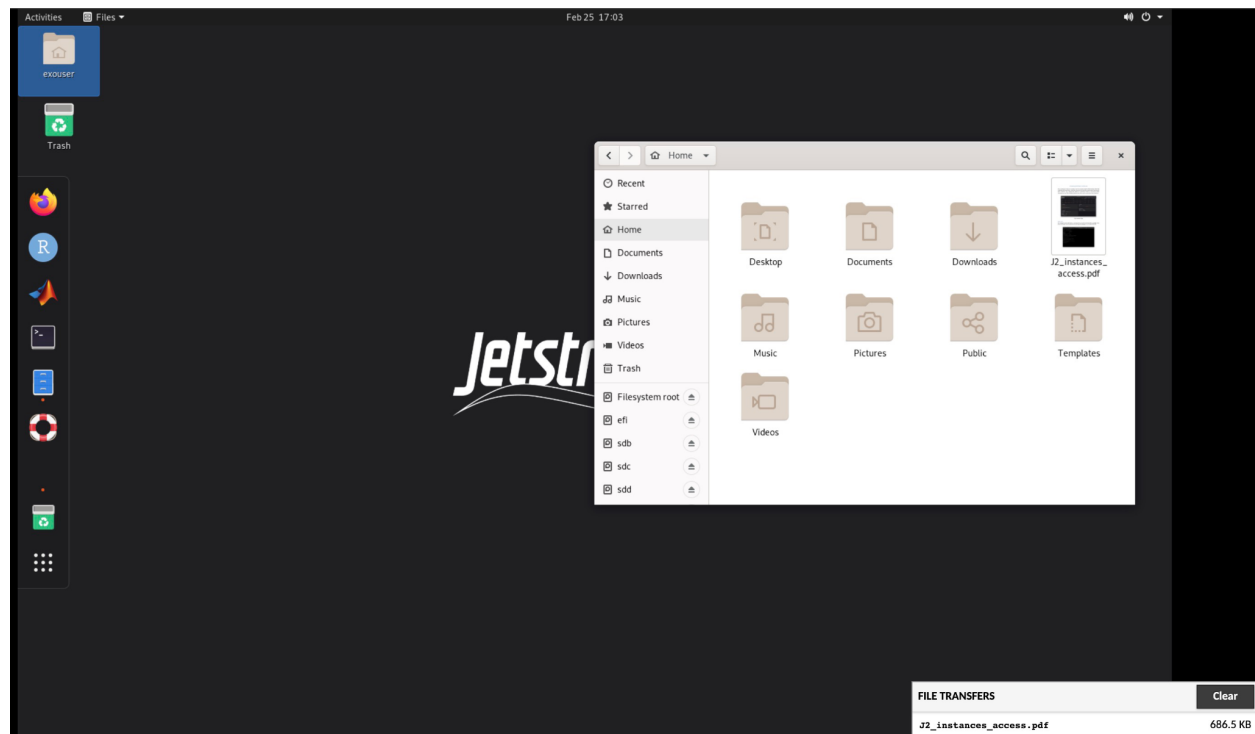
## Step 1: Creating the Instance

Created the First instance with basic working functionality



## Step 2: Transferring files from Local Environment to the VM

Explored the different options and applications and jetstream2 such as using R studio to code and transfer files from the local computer to the Virtual machine



### Step 3: Web shell

For the first instance tried web shell and ran the command “hello-world to understand the working status and Tried some instance management actions.

```
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.15.0-60-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage

System information disabled due to load higher than 1.0

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

* Introducing Expanded Security Maintenance for Applications.
  Receive updates to over 25,000 software packages with your
  Ubuntu Pro subscription. Free for personal use.

  https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

3 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Your Hardware Enablement Stack (HWE) is supported until April 2025.

Last login: Sat Feb 25 17:00:38 2023
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

exouser@jetstream:~$ sudo docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:6e8b6f026e0b9c419ea0fd02d3905dd0952ad1feea67543f525c73a0a790fefb
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
exouser@jetstream:~$
```

### Step 4: Instance Management Actions - Resize and a few other

Jetstream2

Messages Settings Get Support About

Home > Project CIS220079 > Resize Instance Jetstream

Jetstream2 IU - CIS220079 (logged in as amhaske@access-ci.org)

Remove Allocation [→] Create ▾

#### Resize Instance (Current Size: m3.tiny)

Flavor

General-purpose

	Name	CPUs	RAM	Root Disk	Ephemeral Disk
Current	m3.tiny	1	3 GB	20 GB	none
●	m3.small	2	6 GB	20 GB	none
●	m3.quad	4	15 GB	20 GB	none
●	m3.medium	8	30 GB	60 GB	none
●	m3.large	16	60 GB	60 GB	none
●	m3.xl	32	125 GB	60 GB	none
●	m3.2xl	64	250 GB	60 GB	none

Resize

created 35 minutes ago ⓘ

by user amhaske@access-ci.org

from image Featured-Ubuntu20

flavor m3.small ⓘ

Burn rate 0.00 SUs/hour

Interactions

> Web Shell ⓘ

Web Desktop ⓘ

> Native SSH ⓘ

Console ⓘ

Workflow ⓘ

# Credentials

Public IP Address

149.165.170.243 ⓘ

Unassign

> IP Details

Username

exouser

Passphrase

Show

SSH Public Key Name

(none)

Volumes

(none)

Action History

Action	Time
shelve	2 minutes ago ⓘ
confirmResize	2 minutes ago ⓘ
resize	4 minutes ago ⓘ
createImage	5 minutes ago ⓘ
unshelve	6 minutes ago ⓘ
shelve	24 minutes ago ⓘ
unshelve	25 minutes ago ⓘ
shelve	26 minutes ago ⓘ
Setup Complete	33 minutes ago ⓘ
create	35 minutes ago ⓘ

## Step 5: Instance Management Actions - Shelve your instance

Jetstream2

Messages

Settings

Get Support

About

Home > Project CIS220079 > Instances > Instance jetstream

Jetstream2 IU - CIS220079 (logged in as amhaske@access-ci.org)

Remove Allocation ↗

Create ▾

Instance jetstream

4fc46773-088c-482b-95e0-d01d8d44d0b ⓘ

ⓘ

Shelved

🔒

Actions ▾

created 34 minutes ago ⓘ

by user amhaske@access-ci.org

from image Featured-Ubuntu20

flavor m3.small ⓘ

Burn rate 0.00 SUs/hour

Interactions

> Web Shell ⓘ

Web Desktop ⓘ

> Native SSH ⓘ

Console ⓘ

Workflow ⓘ

# Credentials

Public IP Address

149.165.170.243 ⓘ

Unassign

> IP Details

Username

exouser

Passphrase

Show

Volumes

(none)

Action History

Action	Time
shelve	a minute ago ⓘ
confirmResize	a minute ago ⓘ
resize	3 minutes ago ⓘ
createImage	4 minutes ago ⓘ
unshelve	5 minutes ago ⓘ
shelve	23 minutes ago ⓘ
unshelve	24 minutes ago ⓘ
shelve	25 minutes ago ⓘ
Setup Complete	32 minutes ago ⓘ
create	34 minutes ago ⓘ