

# Commonwealth Center for Advanced Computing Service Catalog

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## Problem Statement

- The Commonwealth Center for Advanced Computing (CCAC) faces challenges in efficiently **providing access to its advanced computing resources**, including:
  - IBM z/16 mainframe
  - IBM Power10
  - Dell x86 servers
- Client need to **provision servers and containers** in the new CCAC environment
- Clients need a **catalog** of servers and containers from which they can choose from
- Provisioning instances from the catalog should not require a lot of technical skill – **must be easy**

## Illustrations



## Existing Solutions

**None:** CCAC is a new concept. It is a new hybrid cloud infrastructure.

- Ansible vs Terraform
- OpenShift vs Kubernetes

## Social Value

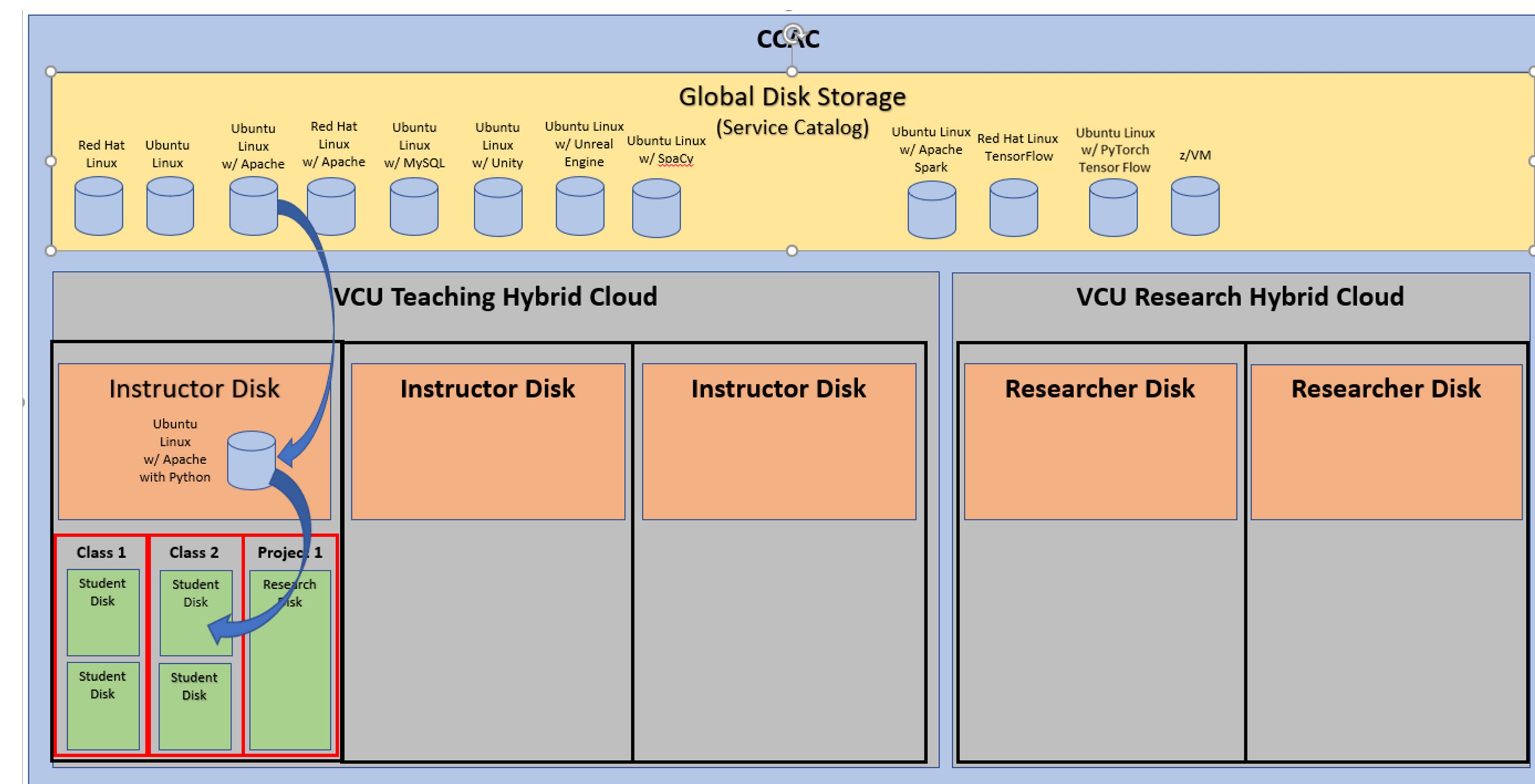
- CCAC is a **hybrid cloud** offering Virginia universities, industry partners, and vendors a development platform in which to collaborate
- They provide **computer resources for teaching, research and collaborative development** between industry, government and education

## Solution

- Identify **server types** necessary for the service catalog:
  - AI & Natural Language Processing servers
  - Application servers
  - Database servers
  - Development environments
  - Virtual Reality & Augmented Reality servers
  - Web servers
- Identify the **software** that needs to be installed for each server and the hardware configuration needed
- Create a “**golden image**” for each server that users can easily deploy and customize within their CCAC account environment
- Utilize **Ansible** for provisioning of each server

## Methodology

- Utilize **Openshift** for provisioning containers
- Utilize **Ansible** for provisioning an instance of a “golden image” virtual server



## Next Steps

- Integrate “**golden images**” into the service catalog
- Integrate the ansible scripts to the client dashboard to allow clients to provision their own instances from the service catalog

