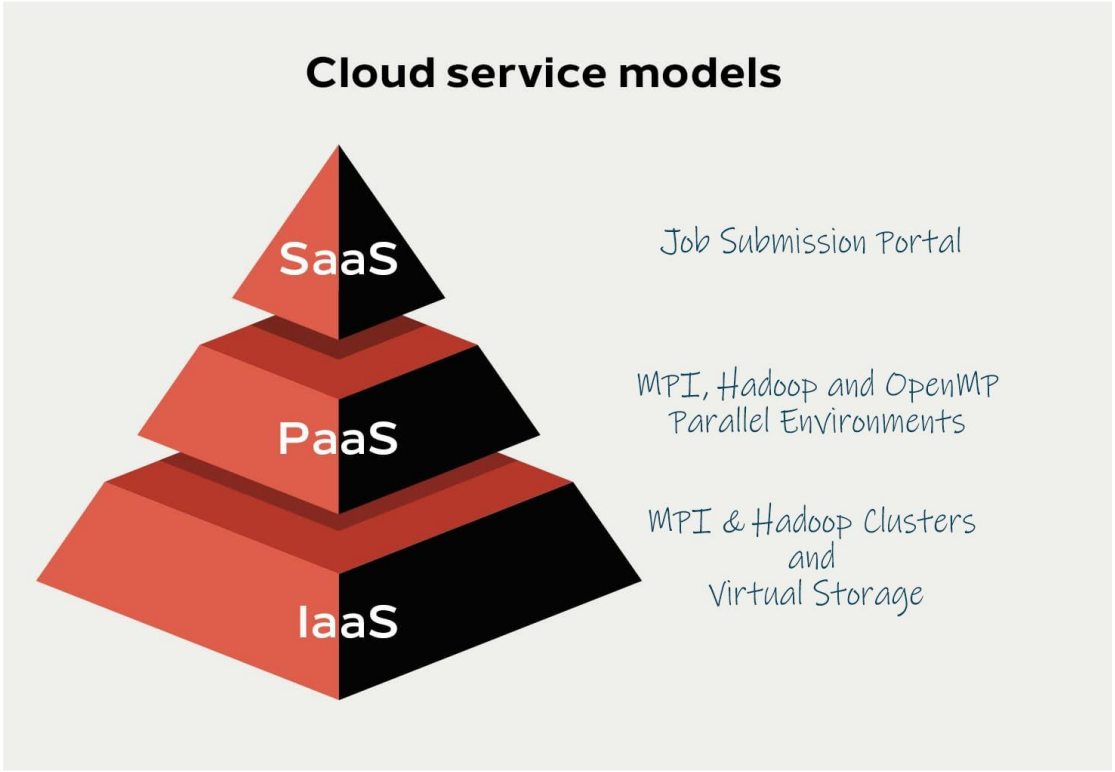
SuMegha Cloud Stack

Build Your Own Private Cloud

SuMegha Cloud Stack

- SuMegha is a scientific cloud providing cost effective and scalable HPC to researchers and organizations.

- It offers convenient access to reliable HPC clusters and storage without the need to purchase and maintain sophisticated hardware.



Features of SuMegha Cloud Stack

Auto Installation

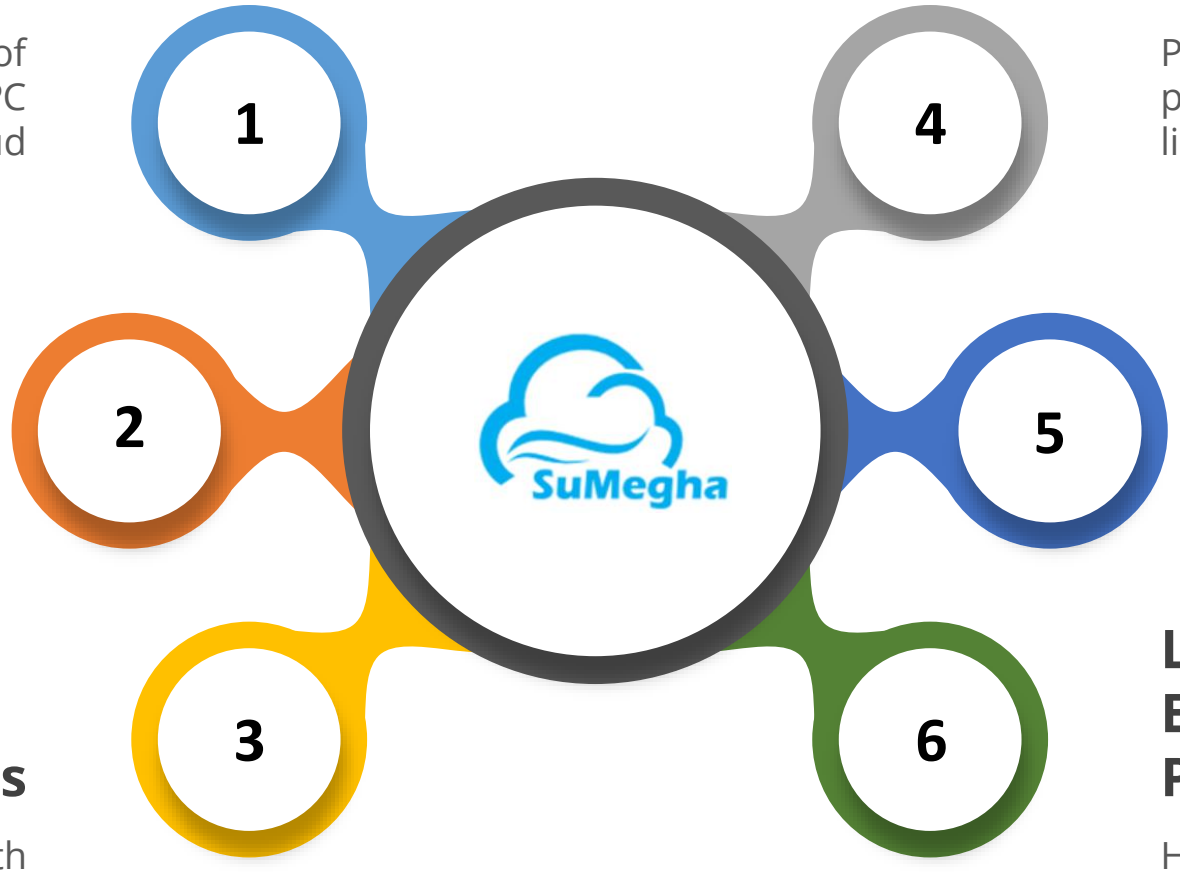
Provides auto installation of cloud stack to establish HPC Cloud

On-demand virtual clusters

Create on-demand scientific virtual clusters and virtual machines easily and quickly

HPC Environments

Provides HPC PaaS with OpenMP, MPI and Map-reduce Parallel environments



Golden Images

Provides golden images with pre-loaded HPC Applications like seasonal forecast model

Job Management Portal

Provides a portal for Job Submission and Management

Lab Manuals, Excercises and Project Ideas

Helps the Academicians with Lab Manuals, Lab exercises and new project Ideas.

Skoch Order of Merit Award for 2015 & 2019

Integration of SuMegha Cloud with eVidhyalaya

- Recently we have deployed SuMegha Cloud Stack at NCRB, Delhi, integrated with eVidhyalaya Moodle Platform (CDAC, Trivandrum)
  - We have deployed SuMegha Cloud Stack on Servers at NCRB, Delhi
  - Integrated eVidhyalaya with SuMegha Cloud for Instances and Image management
  - We have provided API's for integration with SuMegha Cloud from eVidhyalaya
  - We have configured free trial versions of Windows 10 and Windows 2019 Servers Virtual Desktop Images
  - We have configured CentOS & Ubuntu linux desktop images
  - Applications required for training is deployed on pre-built Images
  - Through eVidhayalaya, a number of VM's will be spun by students during training for Hands-on

Deployments of SuMegha

- Previously deployed at:
  - CDAC, Trivandrum
  - NIT Sikkim
  - Bhagalpur College of engineering, Bihar
  - Rajiv Gandhi University, Arunachal Pradesh
  - JIS University, Kolkata

About SuMegha

Cloud computing is a useful model for on-demand access to the shared pool of configurable HPC resources (e.g., servers, storage, networks, applications, software, and services) that can be easily provisioned as and when needed. For research groups, cloud computing will provide convenient access to reliable, high performance clusters and storage, without the need to purchase and maintain sophisticated hardware.

High Performance Computing (HPC) allows scientists and engineers to solve complex science, engineering and business applications that require very high compute capability, massive storage, high bandwidth and low latency networking. Scientists and engineers either wait in long queues to access shared cluster resources or acquire expensive hardware (clusters) at their organization.

Benefits

- Provisioning of commodity servers, pool of HPC and storage resources as IaaS
- On demand Provisioning MPI & Map Reduce clusters to support compute intensive and data intensive applications.
- CloudVault- Storage as a Service to Easily store, import, share, and query images.

Login

Login ID

Password

Login

© 2021 Centre for Development of Advanced Computing (C-DAC)

SuMegha Web Portal Instances Page

© 2021 Centre for Development of Advanced Computing (C-DAC)

Home Instances Storage Images Logs Help Logout

Storage Facility

- Refresh

Host Name	IP Address	Name	Size (GB)	Location	Actions
vmcdcs1	10.180.32.51	Test	2	/dev/vdb	Remove

NOTE :- All the member of cluster will have same handle name

Additional Storage

Handle Name Windows10 Name Size in GB 2 Add Storage

SuMegha Web Portal – Storage Page

© 2021 Centre for Development of Advanced Computing (C-DAC)

Home | Instances | Storage | Images | Logs | Help | Logout

Repository Images

- Refresh

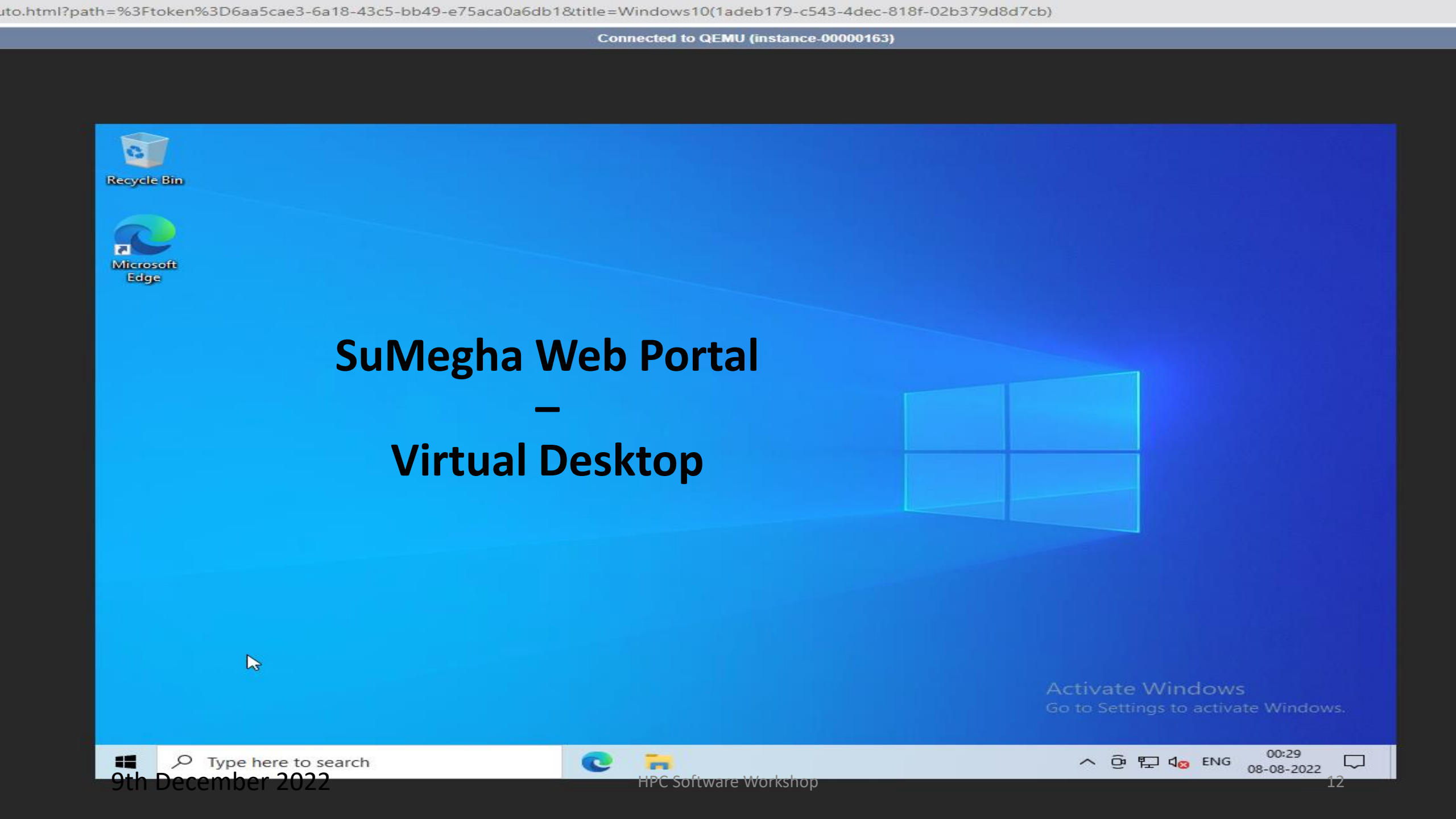
Name	Format	Size(GB)	Status on	Delete Image
CentOS7	qcow2	8.58	active	Delete
CentOS7GUI	qcow2	6.32	active	Delete
Windows10	qcow2	4.29	active	Delete
WindowsServer2012	qcow2	1.20	active	Delete
centOS-SP	qcow2	1.33	active	Delete
cent_test	qcow2	9.15	active	Delete
centos-7-image	qcow2	8.97	active	Delete
centos7_san	qcow2	8.97	active	Delete
myinstanceimage	qcow2	9.14	active	Delete
ub_test	qcow2	1.19	active	Delete

NOTE :- The above repository images saved by the User to create Virtual Machine

SuMegha Web Portal – Images Page

© 2021 Centre for Development of Advanced Computing (C-DAC)

SuMegha Web Portal – Logs Page


uto.html?path=%3Ftoken%3D6aa5cae3-6a18-43c5-bb49-e75aca0a6db1&title=Windows10(1adeb179-c543-4dec-818f-02b379d8d7cb)
Connected to QEMU (instance-00000163)
Recycle Bin
Microsoft Edge
SuMegha Web Portal
–
Virtual Desktop
Activate Windows
Go to Settings to activate Windows.
Type here to search
ENG
00:29
08-08-2022

Contact Details

Web site: www.sumegha.in

Email: sumeghacloudlabkit@cdac.in