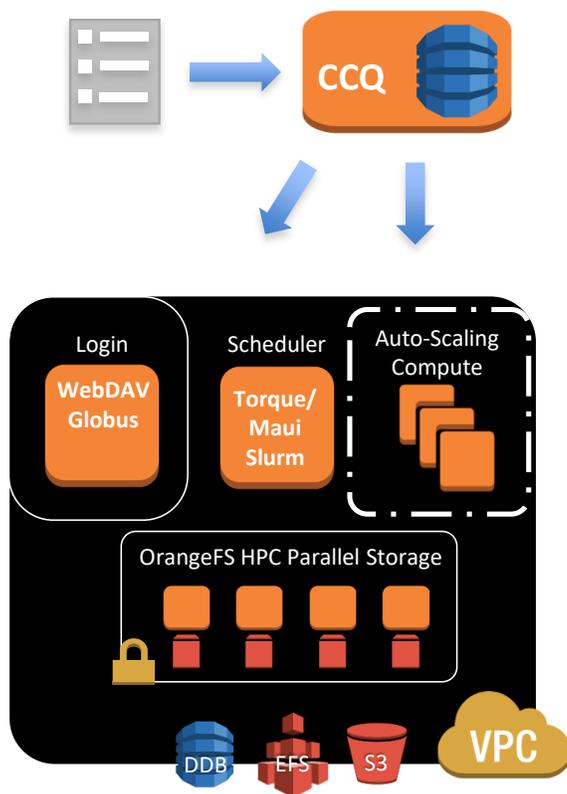


WHAT IS CLOUDYCLUSTER?

As more organizations are finding an on-site data center cost-prohibitive or looking to dynamically extend their on-premise capacity, High Performance Computing (HPC) in the cloud has become an attractive alternative. With virtually limitless resources available, HPC in the Amazon Web Services (AWS) cloud offers both faster computation and time to results. Cloudy Cluster makes it easy for anyone to set up an HPC cluster in the AWS cloud, including Compute, Storage, and Data Transfer.

Anyone can quickly and easily use CloudyCluster to run HPC and Big Data jobs on AWS and CloudyCluster and AWS are available 24/7/365, with no waiting for hardware and installation time. Best of all, CloudyCluster lets you pause your cluster whenever you are not running a job, so you pay only for the processing time and storage you use.



TECHNICAL DIAGRAM OF CLOUDYCLUSTER ARCHITECTURE

HOW DOES CLOUDYCLUSTER WORK?

CloudyCluster quickly provisions compute instances with a wide selection of open HPC applications, dynamically configured for access to storage. All instances within a compute group are based on the same image and the same instance type.

You create and manage your own CloudyCluster using a self-service, mobile-friendly web interface. The CloudyCluster step-by-step wizard makes the setup process a straightforward, painless experience from any device, at your desk or on the go.

CLOUDYCLUSTER AT A GLANCE

This browser-based tool is used to set up AWS based Elastic High Performance Computing Environment, streamlining the AWS setup process, with options for your unique HPC needs:

- *Pay only for what you use and Pay as you go*
- *Pause, resume, and delete the HPC environment when finished*
- *Job-initiated elastic HPC through CCQ including support for Spot Instances*
- *Jobs launched will create on-demand compute groups with the instance type needed*
- *Provides pre-installed, common HPC Software*
- *Torque(PBS) and Slurm Schedulers supported*
- *WebSSH capability accessible through browser*
- *Remote Visualization with VisualHPC™ through integrated VNC*
- *Everything is managed from a control node launched from the AWS Marketplace*
- *Supports instances in the Amazon free tier*
- *Globus integration supporting high speed data transfers*

SIMPLIFIED COLLABORATION

Designed with collaboration in mind, CloudyCluster also permits invitation based collaboration, providing simple tools to add users and grant permission levels within its basic interface. Collaboration is also supported by simple options to share with Google groups and folders.

Your CloudyCluster Virtual Private Cloud (VPC) integrates the Orange file system (OrangeFS), which provides parallel access to disk storage for applications running in an HPC environment, solving storage issues for Big Data and Data Intensive applications. With CloudyCluster on Amazon Web Services, organizations who do not own or have immediate access to large computer clusters can quickly and easily use OrangeFS to make the most of available data whenever needed.

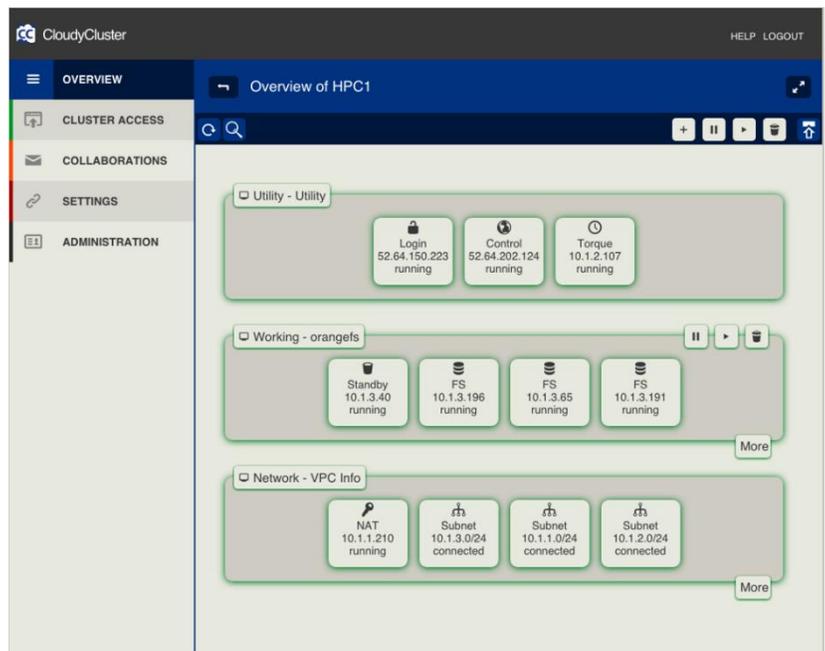
The browser-based CloudyCluster tool creates AWS instances for quick HPC processing with OrangeFS. It streamlines the complex AWS setup process, with options for your unique HPC needs:

- OrangeFS file system
- Multiple sets of instances and images with popular Open Source HPC software
- Schedulers such as Torque and Slurm
- WebDAV for native file access
- Compute instance images will be based on popular Open Source software, including the Hadoop ecosystem and popular HPC software packages

ELASTIC COMPUTATION: NO MORE CALCULATING NEEDED HPC RESOURCES

With a resource approaching infinity relative to a static cluster, scheduling problems are a thing of the past. Instead, CloudyCluster dispatches jobs to the cloud, using CCQ to spin up the number of instances required to complete the job. Thus, CCQ is bridging the gap to familiar computing environments, providing a front end for common schedulers enabling elastic computation.

To accomplish this, CCQ provides a command line interface that is similar to other scheduler commands, such as `ccqsub`, `ccqstat` and `ccqdel` with options that map across all the schedulers. Most of the configuration for items such as auto-scaling, instance type, spot instance price, etc. are heuristically determined or configured through the job scripts themselves. Once the jobs have completed, and the billing time approaches, the instances are terminated.



THE USER-FRIENDLY CLOUDYCLUSTER INTERFACE

GET STARTED TODAY

With Cloudy Cluster, you no longer need a data center or a large cluster computer for HPC jobs. Our simple user interface provides fast access to the power of AWS HPC resources, leaving you free to focus on turning your job results into progress. For additional information about how CloudyCluster can support your work, visit <http://www.cloudycluster.com> and sign up for a free \$100 AWS credit and schedule a free web meeting to help you get started.