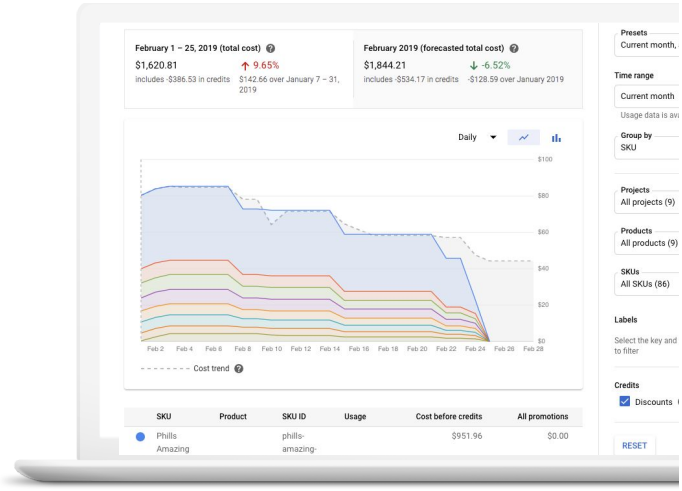
Google Cloud

High Performance Computing

Powerful, flexible infrastructure to support scalable workloads.

Innovate with high-performance, on-demand hardware and software

Accelerate insights with the power of the Google Cloud compute, networking and storage infrastructure. Build your own supercomputer using the latest processors and accelerators. Google Cloud also offers a broad portfolio of HPC solutions built with our technology partners.



Cut the queues

On Google Cloud, each team can either access their own scalable, tailor-made cluster, or burst out an existing cluster. This helps them solve problems faster, reduce queue times, and relieve compute resource limitations.

Benefits

- Highly configurable. Match your workload's requirements with the latest infrastructure and custom machine types.
- Save even more with Preemptible VMs (up to 80% cost savings), and automatic sustained use discounts.
- Hybrid & Multi-Cloud solutions to enable choice. Avoid lock-in with open source.
- Extensive partner ecosystem.

"Bigger is better in virtual screening. We've taken this to the next magnitude with 1.4 billion compounds now. Hopefully in the near future we'll go to about twenty billion compounds. This will revolutionize drug discovery."

Haribabu Arthanari
Assistant Professor, Department of Biological Chemistry and Molecular Pharmacology
Harvard Medical School and Dana-Farber Cancer Institute

Read the Harvard COVID-19 case study here

What's new?

- Slurm: Version 3 supports partitions, network storage, OpenMPI, CloudSQL, images, and Terraform (beta).
- A2 VMs: New NVIDIA A100 GPU-enabled instance family, offering up to 16 A100 GPUs, 96 vCPUs with 3.8GHz Turbo Intel Cascade Lake CPUs, and 1.32TB of RAM.
- DDN EXAScaler: DataDirect Networks released their supported enterprise EXAScaler Lustre software for the first time in the cloud on the GCP marketplace.
- Placement Policies: New feature to control rack-level instance placement for low latency networking.
- MPI Best Practices: Released new tunings for low-latency and MPI workloads, available as a script and a DIY guide.

Related products

Compute Engine

Cloud Storage

Cloud Networking

Partner spotlight

DDN

SchedMD (Slurm)

Rescale

For more information, visit https://cloud.google.com/hpc