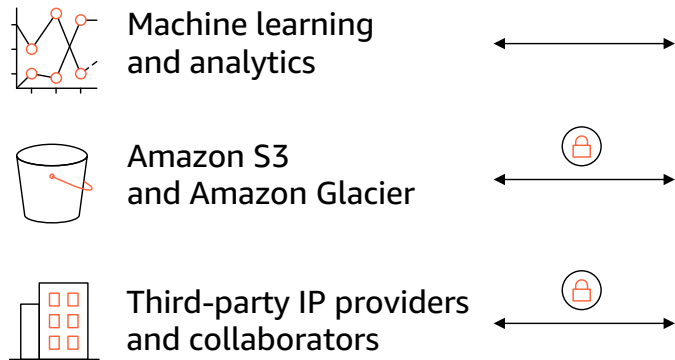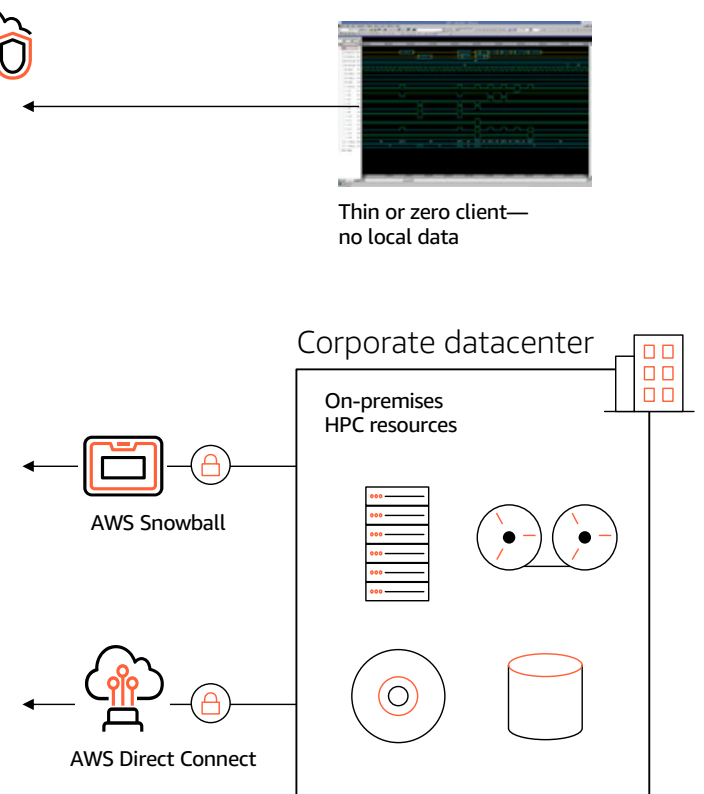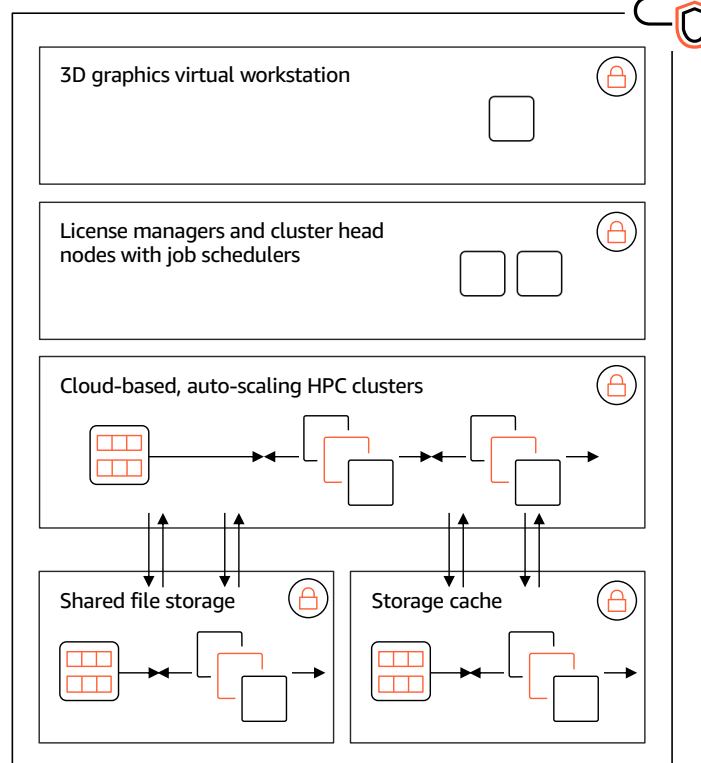# High Performance Computing (HPC) on AWS

On AWS, secure and well-optimized HPC clusters can be automatically created, operated, and torn down in just minutes

Machine learning and analytics

Amazon S3 and Amazon Glacier

Third-party IP providers and collaborators

Virtual Private Cloud on AWS

3D graphics virtual workstation

License managers and cluster head nodes with job schedulers

Cloud-based, auto-scaling HPC clusters

Shared file storage

Storage cache

Thin or zero client— no local data

Corporate datacenter

On-premises HPC resources

AWS Snowball

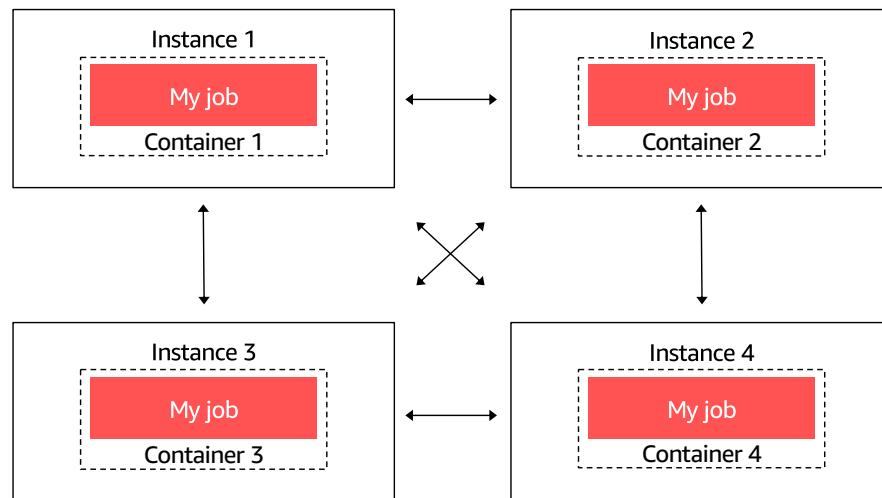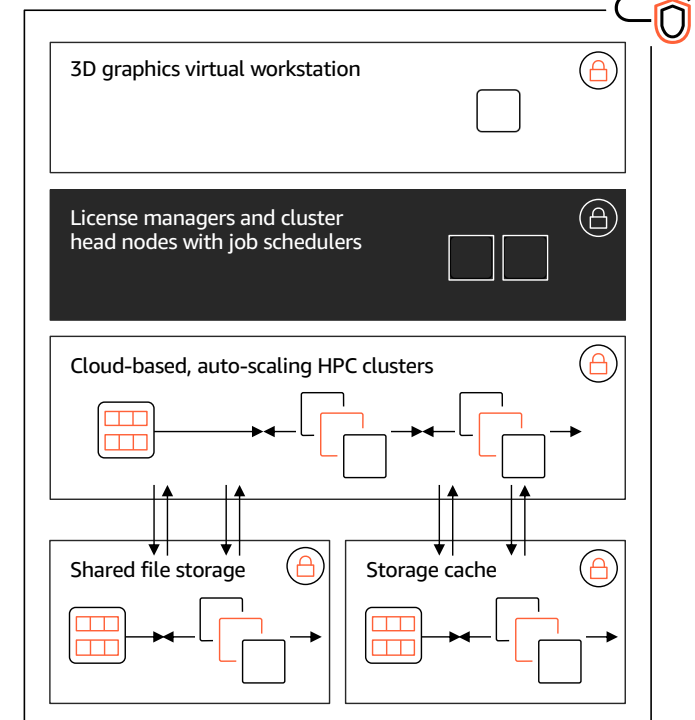AWS Direct Connect

aws

Innovations in HPC infrastructure
Efficient job scheduling: Multi-node parallel job support on AWS Batch

Simplify your compute clusters and scale jobs across multiple instances with AWS Batch support for Multi-node Parallel (MNP) jobs

HPC stack on AWS

- 3D graphics virtual workstation
- License managers and cluster head nodes with job schedulers
- Cloud-based, auto-scaling HPC clusters
- Shared file storage
- Storage cache

Innovations in HPC infrastructure
Easy cluster management: AWS ParallelCluster

Create and manage HPC clusters

- Simplifies deployment of HPC in the cloud, including integrating with popular HPC schedulers

- Built on AWS CloudFormation, easy to modify to meet specific application or project requirements

- Now integrated with AWS Batch

HPC stack on AWS

3D graphics virtual workstation

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