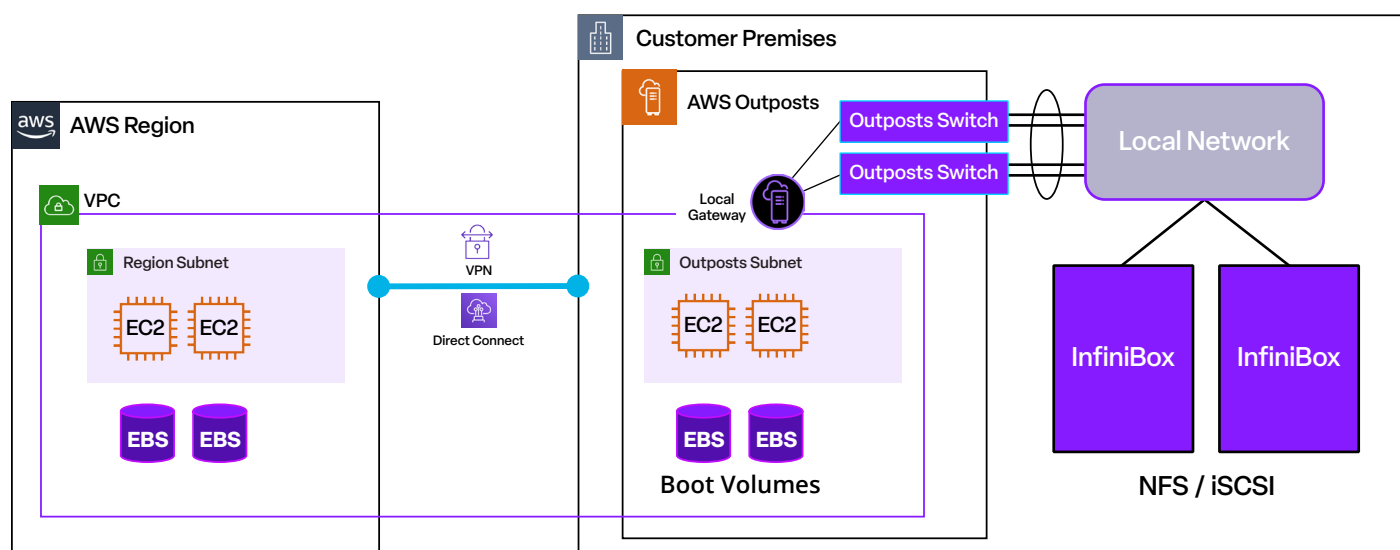INFINIDAT

InfiniBox® for AWS Outposts

AWS Outposts is a fully managed service that extends AWS infrastructure, services, APIs, and tools to virtually any data center, colocation space, or on-premises facility for a truly consistent hybrid experience. AWS Outposts is ideal for workloads that require low latency access to on-premises systems or local data storage.

Infinidat InfiniBox and AWS Outposts combine to provide enterprise customers and cloud service providers tier 0/1 on-premises storage at massive scale with high-performance, low latency and 100% availability. Access to InfiniBox from AWS Outposts EC2 instances is via either NFS or iSCSI block volumes as defined in the Infinidat AWS Outposts Reference Architecture:

Infinidat InfiniBox for AWS Outposts Configuration

Deployment of InfiniBox in an AWS Outposts configuration can be easily accomplished either via the InfiniBox GUI, API, CLI, or via the AWS Outposts EC2 instance. When using the InfiniBox interfaces, other than the network connectivity to connect to AWS Outposts (which is covered in AWS documentation), all configuration and operational steps are standard practice including definition of the Network Space, Filesystems, Volumes, etc.

Optional Professional Services to assist with planning, configuration, and deployment are available through Infinidat and Infinidat Certified Partners.

InfiniBox for AWS Outposts Configuration Steps

When configuring the AWS Outposts network, some simple considerations should be applied:

- ▶ Assure the AWS Outposts subnet is configured with a route to the Local Gateway for the on-premises subnet on which the InfiniBox is located
- ▶ Attach an elastic IP address to the instances from the customer-owned IP pool
- ▶ Verify connectivity to all components prior to storage configuration

General configuration of InfiniBox follows Infinidat standard practices:

- ▶ InfiniBox Best Practices for Setting up a NAS Service
- ▶ InfiniBox Best Practices for Setting up an iSCSI Service

For administrators unfamiliar with those practices, details for each of these procedures is linked to the basic configuration steps, sequenced as follows:

Launch an AWS Outposts EC2 Instance

For NAS:

On InfiniBox:

- ▶ Configure a Network Space for NAS
- ▶ Create a filesystem
- ▶ Create a filesystem export

On EC2 Instance:

- ▶ Create a mount point on EC2 instance
- ▶ Mount the InfiniBox export

For iSCSI:

On EC2 Instance:

- ▶ Install Infinidat Host PowerTools
- ▶ Register host

On InfiniBox:

- ▶ Configure a Network Space for iSCSI
  - ▷ https://support.infinidat.com/hc/en-us/articles/360002122818
  - ▷ https://support.infinidat.com/hc/en-us/articles/360002184718
- ▶ Create a volume
- ▶ Map volume to host

On EC2 Instance:

- ▶ Discover mapped volume:
  - ▷ infinihost rescan
  - ▷ infinihost volume list

Considerations and Options

Infinidat offers interface options for configuration and management of InfiniBox, including a robust HTML5 GUI, a feature-rich Command Line Interface, and also a RESTful API. For Cloud Environments, Infinidat also offers a driver for Container Storage Interface support including provisioning and management of Kubernetes Persistent Volumes. The plugin supports the following features for iSCSI, Fibre Channel, NFS, and NFS-TreeQ (for very large clusters with hundreds of thousands of PVs per InfiniBox system):

- ▶ Manage multiple InfiniBox storage arrays
- ▶ Provision and remove PVs (Persistent Volumes)
- ▶ Take snapshots and restore from snapshots
- ▶ Create clones of PVs
- ▶ Create raw block storage
- ▶ Extend (resize) PVs
- ▶ Import external datasets as PVs

The plugin can be deployed using Helm Chart and OpenShift Operator mechanisms.

Infinidat has also made an Ansible interface available; many of the functional tests with AWS Outposts included playbook templates which are publicly available for those choosing to manage their storage interface with that option.

Infinidat InfiniBox provides massively enterprise-class storage for AWS Outposts

The AWS Service Ready program helps customers find AWS Technology Partner products that integrate directly with specific AWS services. One such example is that Outposts Ready Partners offer products that integrate with AWS Outposts deployments bringing demonstrated experience and success helping clients evaluate and use their technologies productively. As an AWS Outposts Ready Partner, Infinidat provides the expertise, availability, and performance to enterprise customers at petabyte scale.

aws partner network | service ready

Infinidat delivers the storage capacity, performance and features required to enable AWS Outposts deployment at enterprise scale for organizations contemplating cloud extensions into their data center environments.

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