



DEPLOYMENT GUIDE

Quantum ActiveScale with AWS Outposts

Quantum[®]

Quantum ActiveScale with AWS Outposts Deployment Guide

Contents

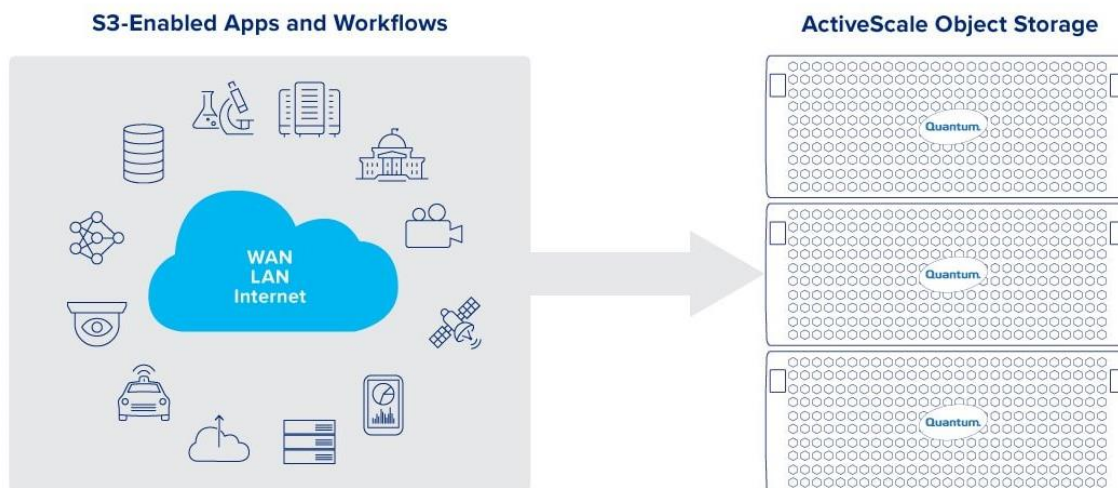
Introduction	3
Setting up Quantum ActiveScale for Use with AWS Outposts	4
Access the ActiveScale System Management	4
Set Up an Account.....	4
Add an S3 User	5
Create a Bucket to Store Your Data in	5
You're Done	7
Security, Protection and Availability	8
Inflight and Keyless Encryption	8
Immutable Object Locking	8
Single Site Component Failure Protection	9
2-Geo Disaster Recovery and Cloud Replication.....	9
3-Geo Continuous Data Availability	10
Troubleshooting and Support	11

Introduction

Quantum ActiveScale™ for AWS Outposts offers unlimited, scalable and cost-effective, local S3-Enabled storage to your AWS Outposts configuration.

It is available for on-prem installation in combination with flexible support options, or completely managed for you as a service, in your datacenter, offering great locality and performance for your data storage workflows.

Quantum ActiveScale for AWS Outposts is deployed alongside the AWS Outposts configuration and connected via Ethernet. It can simultaneously serve both AWS Outposts and unrelated workflows.



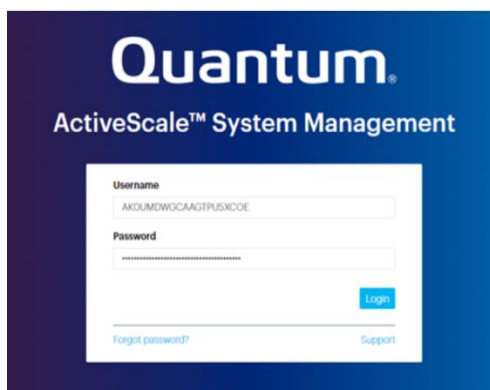
Setting up Quantum ActiveScale for Use with AWS Outposts

This section covers how to access the ActiveScale System Management interface to perform the basic initial setup and to create the necessary accounts and users for use in the AWS Outposts system.

Full Quantum ActiveScale documentation can be accessed through the [ActiveScale Software Documentation Center](#).

Access the ActiveScale System Management

Log into the ActiveScale System Management interface as System Administrator.



Set Up an Account

An account creates, deletes, and sets permissions on buckets, and is the billable identity (if required). See also: [Manage Accounts](#).

Accounts and User Management

System Bucket

1. Click Accounts > Accounts and User Management.
2. Click Add Account.

The Add Account form appears.

3. Enter a name and email address for the account, and click Add.
-
1. **Note:** The account name can contain Unicode (non-ASCII) characters and does not need to be unique. The email address must be unique across all accounts and users.
 2. Generate API keys for the account:
 - a. Click Accounts > Accounts and User Management.
 - b. Select the account/user and click the key icon in its Actions column.
 - c. Click Close.

As a security precaution, the system sends separate messages with the access and secret keys to the email address associated with that account/user.

Add an S3 User

An S3 user is the application or person that initiates S3 operations. It belongs to a specific account. It is the S3 user that will use ActiveScale S3 storage from on the AWS Outposts system.

Note: The system cannot associate a single email address with both an account and an S3 user.

1. Click Accounts > Accounts and User Management.
2. Double-click the desired account.
3. Click Add User under the Actions column.

The Add User form appears.

1. Enter a name and email address for the user, and click Create.

Note: The account name can contain Unicode (non-ASCII) characters and does not need to be unique. The email address must be unique across all accounts and users.

1. Generate an API key for the S3 user:
 - a. Click Accounts > Accounts and User Management.
 - b. Select the account/user and click the key icon in its Actions column.
 - c. Click Close.

As a security precaution, the system sends separate messages with the access and secret keys to the email address associated with that account/user.

For more Account and User management options, please refer to the [Manage Accounts](#) section in the Software Documentation Center.

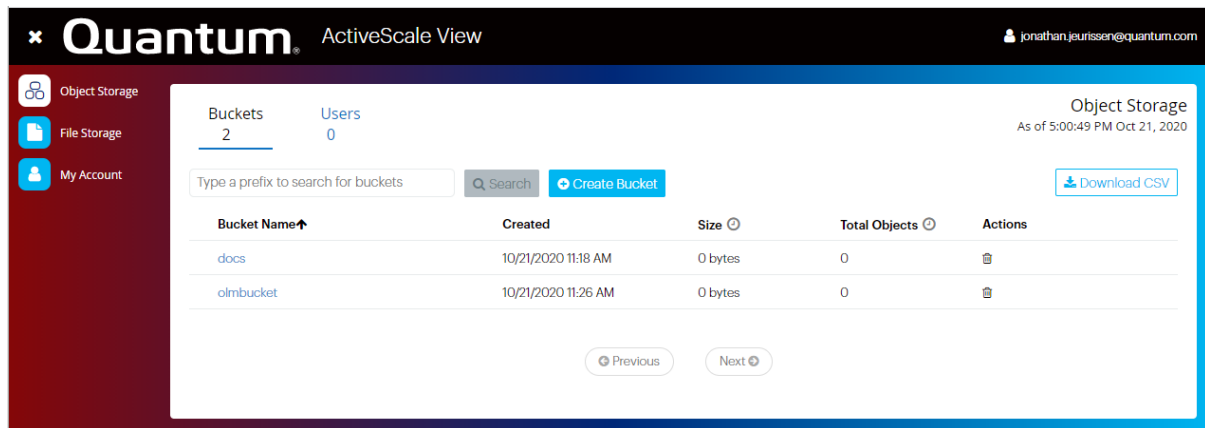
Create a Bucket to Store Your Data in

To use the S3 APIs on ActiveScale, the user first needs to create a bucket. Depending on the usage of this bucket, you can enable versioning, object lock and a Default Retention period at creation of the bucket. Other settings can be modified after the bucket has been created (such as setting an Object Lifecycle Policy)

You can use the AWS cli tool from your service or application running on the AWS Outposts system, but you can also use the ActiveScale GUI to create a bucket.

1. In the navigation bar, click **Object Storage**. The **Buckets** dialog box will be displayed as shown in the following example:

Figure 1: The Buckets Page



2. In the **Buckets** tab, click **Create Bucket** to display the **Create Bucket** dialog box.

Figure 2: ActiveScale View Create New Bucket

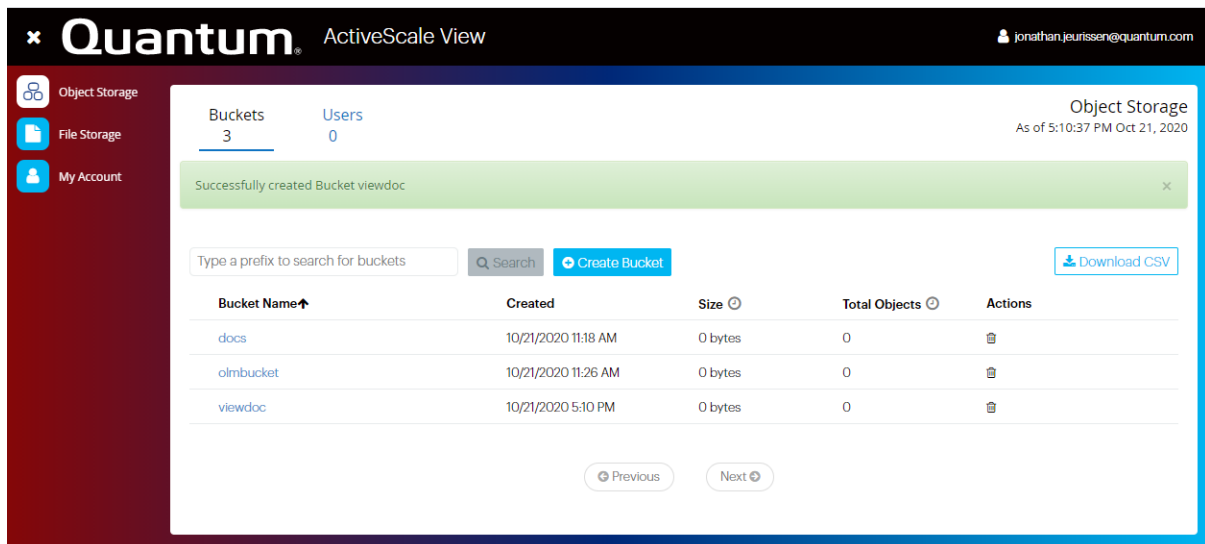
The 'Create New Bucket' dialog box has a title bar with a close button. It contains a 'Bucket Name' field with a placeholder 'Bucket Name'. Below it are three sections: 'Versioning' with a checkbox 'Keep multiple versions of an object in the same bucket'; 'Object Lock' with a checkbox 'Allow objects in this bucket to be locked' and a note 'Object lock requires bucket versioning to be enabled'; and 'Default retention period' with a checkbox and input fields for '1' Year(s) and '0' Day(s). At the bottom are 'Cancel' and 'Create' buttons.

3. In the Create New Bucket dialog box, type a name for the new bucket.
4. Select **Versioning** to keep multiple versions of an object in the same bucket.
5. Selecting "Allow objects in this bucket to be locked" ensures that objects can be locked within this bucket by specifying a Retain-Until date when writing the object. It allows making object versions undeletable for a specified period.
6. Optionally, select the "**Default Retention Period**" check box to set a Default Retention Period to all new objects that are placed put in the bucket. This default can be overridden on a per-object-version basis. Changing the default retention period does

not affect existing object versions. Setting a default retention time is only possible when object lock is enabled on the bucket.

7. Click **Create**.
8. To confirm, click **Create** in the dialog that appears.

Figure 3: Successfully Created a Bucket



Note: More details and options are described in the [Managing Buckets](#) section of the Software Documentation Center.

You're Done

Congratulations, you now have all you need to start using ActiveScale's S3-Enabled storage from any application or service running on the AWS Outposts system.

A full reference of the supported S3 commands is available [here](#).

If you want, there's a lot more you can do and configure, like:

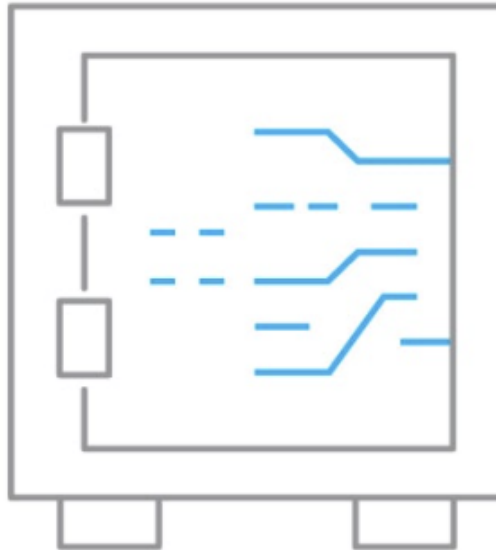
- Set storage Quota
- Get usage per Account/Bucket to manage storage consumption
- Bulk create more users
- Configure Object Notifications for related workflows

You may also want to consider protection of your data through Encryption, or Multi-Site deployments for Availability and Disaster Recovery, which are briefly covered in the next section.

Security, Protection and Availability

Quantum ActiveScale has quite some built-in features to help improve the security and availability of your data. This section offers a few basic highlights.

Inflight and Keyless Encryption



For maximum data security, encrypt your data in flight with SSL/TLS and at rest with ActiveScale. ActiveScale encrypts both object data and metadata, including custom metadata.

Immutable Object Locking

Object Lock prevents objects from being deleted to help you protect against ransomware, meet regulatory requirements for write-once-read-many (WORM) storage, and support long-term retention policies.

Single Site Component Failure Protection



A single-site ActiveScale deployment simply protects against all component failures with metadata, data, and parity intelligently spread across all computing and storage resources within the cluster. Compute and network resources are actively load balanced for maximum performance.

2-Geo Disaster Recovery and Cloud Replication



ActiveScale also provides uni- and bi-directional asynchronous per-bucket replication between ActiveScale clusters or to AWS cloud services for data protection, backups, and disaster recovery.

3-Geo Continuous Data Availability



An ActiveScale 3-Geo configuration delivers the highest availability and protection against disaster. ActiveScale Geo-spreading automatically erasure encodes objects across all three locations. Even with a full data center outage, objects are accessible. The two remaining locations host all the data and parity required to continue servicing all data requests.

Troubleshooting and Support

There are several resources available to help in case problems arise with your system or configuration.

You can always refer to the [Software Documentation Center](#) for manuals and sample commands.

For troubleshooting, there's an extensive [Troubleshooting Guide](#).

Just reach out to our Support Team. Contact details and support contract options are available on [our website](#).



Quantum technology, software, and services provide the solutions that today's organizations need to make video and other unstructured data smarter – so their data works for them and not the other way around. With over 40 years of innovation, Quantum's end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing enhanced intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter. Quantum is listed on Nasdaq (QMCO) and the Russell 2000® Index. For more information visit www.quantum.com.

www.quantum.com | 800-677-6268