

Lyve Cloud Object Storage Customer Guide

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Contents

1	Introduction	3
	Clients and network connectivity	
	Quick start	
	Application configuration	
	Application configuration	4
2	Getting Started	5
	Roles and types (account identities)	5
	Access and configuration	5
	Create a bucket	6
	Delete a bucket	6
	Create users	
	Create policies	
	Generate access keys	
	Set up multifactor authentication	
	IP Protect	
3	Appendix	. 10
	Statistics of transfer	. 10
	Support	. 10
	Troubleshooting	. 11

Introduction

Lyve Cloud Object Storage is Simple Storage Service (S3) compatible with public and hybrid infrastructures, allowing customers to safely store their data with multi-copy geographically distributed data protection, immutability options, and eventually consistent replication. It is hyper-scalable to serve the needs of varying workload types, and can easily be integrated with existing S3 compatible applications.

- An S3 bucket is a public cloud storage resource which contains objects.
- The S3 data model uses a flat structure. There is no hierarchy of folders and subfolders—all objects are stored inside the root of the bucket.
- You can filter objects using prefixes and delimiters to a subset of the bucket.
- An object is uniquely identified by its bucket, its full name (also known as object ID), and optional
 associated metadata.

Clients and network connectivity

Lyve Cloud Object Storage exposes an S3 compatible interface over HTTPS. The interface can be used interactively or programatically:

Interactively

- A web-based GUI best suited for simplified management accesshttps://console.<reseller-name>.lyve.seagate.com/signin
- A third-party S3 compatible GUI or CLI client

Programmatically

 Via API calls with S3 compatible SDKs or libraries with an endpoint, access key, and secret key credentials

API guide

The API Guide is accessible from the web GUI and can also be viewed online: Lyve Cloud Object Storage API User Guide.

Lyve Cloud Object Storage has been tested against all major SDKs for S3 clients (python library, AWS SDK Go library, AWS SDK JS library), S3 GUIs (CyberDuck, S3browser), and various S3 capable applications. Contact Lyve Cloud Support if you do not see an application that suits your needs.

Quick start

If you are going to use root access with no additional users:

- 1. In the web GUI, generate a key set for your user ID.
- 2. Create a bucket.
- 3. Use the keys you've generated, along with the endpoint, in your app (for example, Cyberduck).
- 4. Go!

Application configuration

Most S3 compatible applications are configured in the same manner. Lyve Cloud Object Storage does not use the concept of regions in an endpoint configuration, so default settings are usually sufficient. For more details, see Connect S3 Clients in the Lyve Cloud Object Storage Product Features Guide.

Getting Started

Customers may access buckets through a DNS-style or virtual host interface, as well as through the web GUI:

- DNS-style interface: https://\$bucketname.\$endpoint/\$path/
- Virtual host interface: https://\$endpoint/\$bucketname/\$path
- https://lyve.seagate.com/signin

Where \$endpoint is: s3.lyve.seagate.com

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Lyve Cloud Object Storage supports access only on port 443, using TLS v1.2 or later.

Roles and types (account identities)

There are three distinct roles for those who access the Lyve Cloud Object Storage:

Role	Description
Admin	Can manage users and policies, with the exception of the root account.
Root	The initial and main identity of the customer account. Direct customer root identities can also create access/secret key pairs for access. The root account cannot be deleted.
User	Can perform operations on buckets according to the policies that are attached. A user can change their own password and create access/secret key pairs for access.

The root identity is assigned to the owner of the customer account.

Access and configuration

To access the account, use the following URL: https://lyve.seagate.com/signin.

If resetting the password, the user must wait one minute before repeating a password reset request. No error is returned if the user does not respect the minimum interval between requests.

Once logged in, you can go to the account page to configure multifactor authentication (MFA), change the account password, and generate access/secret keys. To access the account page, select your profile in the upper right corner of the navigation bar, and then select **My Account**.

Create a bucket

Each bucket is a container for objects. To create a bucket, complete the following steps.

- 1. Select **Buckets** in the top navigation bar.
- 2. Click on the Add Bucket icon in the upper right corner.
- 3. In the dialog, enter the required information. Select the sites where your bucket will be replicated.
 - If this option is not available, contact your admin as they may have disabled this setting.
- 4. Using access mode, buckets can be set as 'Private', 'Public', or 'Custom'. Check the boxes for the permissions that you want to provide. All new buckets are private by default.

The format for accessing a public bucket is: https://bucketname.endpoint/path where there is case sensitivity in the letters. Such as:

https://samplefiles.s3.us-west-1.sv15.lyve.seagate.com/Sample.jpeg

All new buckets are private by default. Granting public access permissions means that anyone can access files in the bucket.

To change the access mode for an existing bucket:

- 1. Select **Buckets** in the top navigation bar.
- 2. Select the Wrench icon in the 'Actions' column and select an access mode.

Delete a bucket

To delete a bucket, typically you have to empty all of its objects and folders, and then delete all of its associated policies. Lyve Cloud Object Storage offers an option to delete the bucket and all of its

contents.

To delete a bucket:

- 1. Select **Buckets** in the top navigation bar.
- 2. In the 'Actions' column, select the Trash icon.
- 3. Use the dropdown menu to select your delete option. If you delete a bucket and all of its contents, do not close or refresh your browser while operations are in progress. Note that the command may need to be run several times.

Create users

To create a new user:

- 1. Select **Users** in the menu bar, and then select the Add icon.
- 2. Enter the email address you want to give access to. The email address is not validated. It's only used for login purposes or to send password reset links.
- 3. Select Create User.
- 4. On the Users page, select the user's email to edit their permissions.
 - A notification is not sent to the user automatically. The user must be notified separately. In the case of a password reset, you can send a reset link to the email used in the account credentials.

Create policies

To create policies in your bucket:

- 1. Select **Policies** in the top navigation menu.
- 2. Select the **Create Policies** button in the top right corner.
- 3. Enter a name and description for your new policy.
- 4. Select a bucket under the naming schema, and then select the permissions to apply to that bucket.
- 5. Select Save.

Generate access keys

It is important to note the following about access keys.

- A root user without an {AccessKeyID, SecretAccessKey} pair cannot generate a presigned link. The request will not send a valid credentials object and will fail.
- The current user cannot generate a presigned link without an {AccessKeyID, SecretAccessKey} pair.
- The root user of an account does not have an {AccessKeyID, SecretAccessKey} pair generated for

them by default.

To create application credentials (access/secret key pairs) for the account:

- 1. Using the web GUI, select your name in the upper right corner, and then selectly Account.
- 2. Select + **GENERATE KEY** in the bottom right corner.
- 3. Download the CSV key and manage as you normally would, such as with a password manager.
- 4. Once downloaded, use your favorite .CSV compatible application (Excel, Google Sheets, Numbers) to view the contents. For a onetime view, select the Eye icon for the secret key.
 - Note that multiple key pairs may be created for an account.

Set up multifactor authentication

To set up multifactor authentication:

- 1. Using the web GUI, select your name in the upper right corner, and then selec My Account.
- 2. Select ENABLE 2FA.
- 3. A dialog appears displaying a QR code and a secret key. Most MFA apps will ask you to scan the QR code to confirm the setup. The MFA app will then provide a token that needs to be entered into the available space below the QR code.
- 4. Once the setup is complete, a number of recovery keys will be given in case you lose access to your MFA device. Make sure to copy these and keep them in a safe place. This will be the only way to recover your locked account.
 - Note—If you need to reset your multifactor authentication, contact Lyve Support at lyve.support@seagate.com.

IP Protect

IP Protect is a feature that enables granular whitelisting to resources for customer users. It allows you to explicitly ensure that only a specific IP address or range of IP addresses has access to a specific resource.

- You can remove all restrictions by using 0.0.0.0/0 as the whitelisted IP address.
- IP Protect currently works with IPv4 and is not designed for IPv6.

To access IP Protect:

1. In the web GUI, use the dropdown menu in the top navigation bar to select the customer account.

2. Select **ADD RULE**.

Requests from a customer account will require approval from the reseller administrator.

Appendix

Statistics of transfer

In the Lyve Cloud Object Storage portal, you can display statistics of your account along with the storage and transfer rates. It will also display a graph with the total used space (GB), number of objects stored, egress and ingress traffic, all aggregated by day. This can give insight into when your users seem to be using the most bandwidth.

The admin can choose the date interval to display and can export the data to csv for easier processing using third-party programs.

To view the statistics, click on "Stats" in the top navigation bar.

Information on how to obtain the same data in a programmatic way is available in the API documentation.

You can display statistics of your customer account, inlcuding:

- Storage and transfer rates
- Total used space (GB)
- Number of objects stored
- Egress and ingress traffic (aggregated by day)

This can provide insight into when you are using the most bandwidth.

The admin can choose the date interval to display and export the data to a .CSV file for processing using third-party programs. To view the statistics for the entire reseller account, select **Stats** in the top navigation bar.

Support

For further support:

- Select the **Support** tab in the web GUI.
- Contact Lyve Support at lyve.support@seagate.com.
- To open a support ticket, contact the Lyve Support Center (Lyve account email required).
- For details on Lyve Cloud Object Storage API, see the Lyve Cloud Object Storage API User Guide

Troubleshooting

The following are some troubleshooting tips for common issues.

- If you are unable to connect to the web portal with the password reset URL provided with your credentials, select the **Forgot Password** button on the console page and enter your email address to receive a new reset URL. If an email is not delivered to your inbox, make sure it wasn't forwarded to your junk folder. If needed, you can contact Lyve Support atupport.lyvecloud@seagate.com to request a new reset URL. Note that each password reset URL has a time limit.
- If you have obtained a new password reset URL and are still unable to connect to the web GUI, make note of the error you are receiving.

Invalid Account, Email address or Password	Check that this matches the credentials you were sent. The account name is not the same as the email address.
Your IP address (xxx.xxx.xxx.xxx) is not allowed. Make sure you are connected to the correct network and try again.	Check that your IP address was correctly submitted for whitelisting. To view your IP address, open a browser and navigate to https://whatsmyip.com/.

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For additional assistance, contact your account team atsales.lyvecloud@seagate.com.