



## Bifrost Bucket Creation

A newly created Bifrost Cloud resilient storage account will not have any storage structure by default. So before we can begin using the Bifrost storage system, we need to create new data buckets to contain the data we will send to Bifrost.

### Prerequisites

- [Bifrost Cloud account](#) and access to the [Bifrost portal](#)

### Bucket Creation Methods

In the Bifrost management portal, we can quickly create new data buckets. The ability to manage data buckets from the Bifrost portal means we do not need to use other tools like the *aws-cli* or *S3 Browser application*. However, if you wish to dig into and manage the fine details of your bucket, you still can.

Bifrost Cloud resilient storage uses the S3-compatible API language. The S3-compatibility allows us to control data using any AWS S3 tools. As such, we have outlined two additional methods for bucket management; command-line or application based. These two other methods are **optional** since the Bifrost portal can handle the basic setup requirements.

### Bucket Naming Rules

The following rules apply for naming buckets in Bifrost Cloud:

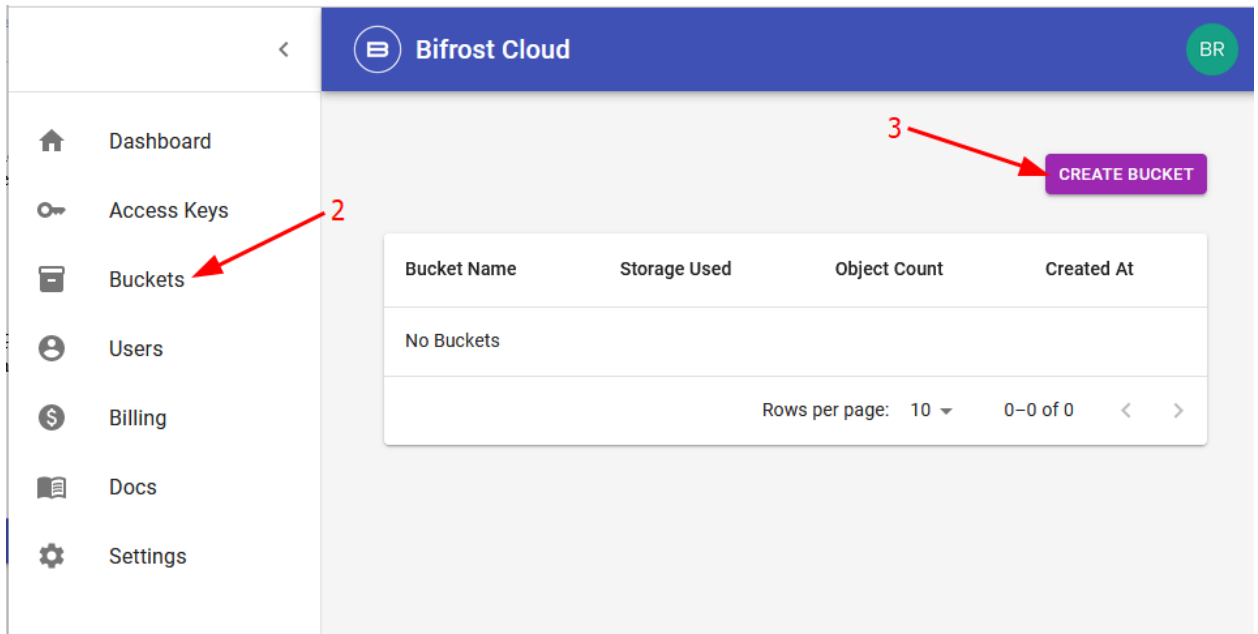
- Bucket names must be between 3 (min) and 63 (max) characters long.
- Bucket names can consist only of lowercase letters, numbers, dots (.), and hyphens (-).
- Bucket names must begin and end with a letter or number.
- Bucket names must not contain two adjacent periods.
- Bucket names must not be formatted as an IP address (for example, 192.168.5.4).
- Bucket names must not start with the prefix `xn--`.
- Bucket names must not end with the suffix `-s3alias`. This suffix is reserved for access point alias names.

For best compatibility, we recommend that you avoid using dots (.) in bucket names, except for buckets that are used only for static website hosting. If you include dots in a bucket's name, you can't use virtual-host-style addressing over HTTPS, unless you perform your own certificate validation. This is because the security certificates used for virtual hosting of buckets don't work for buckets with dots in their names.

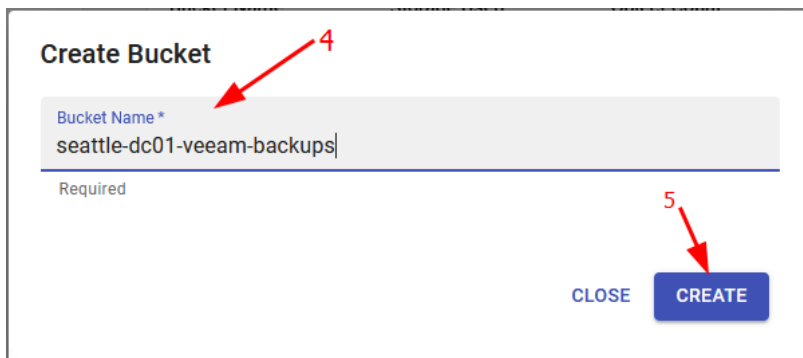
## Creation Methods #1: Bifrost Portal

Creating a new data bucket in the Bifrost portal is quick and easy; follow the method below.

1. Log in to the Bifrost portal using your credentials.
2. In the Bifrost portal, click on “**Buckets**” from the left-hand menu.
3. To add a new bucket, click the “**Create Bucket**” button on the upper right-hand side.



4. A new popup window will appear where you will need to give the new bucket a name using the “**Bucket Name**” box. You can name the bucket anything you want, but the name must be compatible with the [AWS S3 naming rules](#). I recommend that you make the name as descriptive as possible to avoid confusion later.
5. Once you have named the new bucket, click “**Create**” to finalize the new bucket.





6. If you did everything correctly, you will now see the new bucket in the portal bucket list.

A screenshot of the Bifrost Storage Cloud portal. On the left is a navigation menu with icons and labels: Dashboard, Access Keys, Buckets, Users, Billing, Docs, and Settings. The main content area shows a 'CREATE BUCKET' button in the top right corner. Below it is a table with the following data:

Bucket Name	Storage Used	Object Count	Created At
seattle-dc01-veeam-backups	0 B	0	3/1/2023

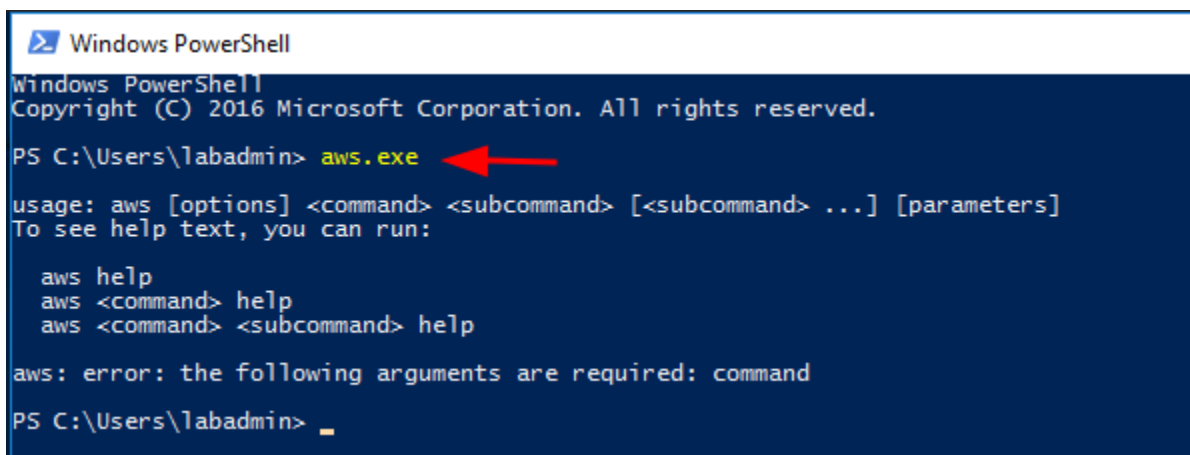
At the bottom of the table, there is a pagination control showing 'Rows per page: 10' and '1-1 of 1' with navigation arrows.

7. That is it! You are ready to move on to creating Bucket Access Keys! ([hyperlink to Bifrost-Cloud-Keys\\_howto URL](#))

## Creation Methods #2: Command Line(Optional)

To create S3-compatible in the Bifrost Cloud, we can use the AWS Command Line Tools(aws-cli).

1. Open the [aws-cli GitHub](#) page. You will find a link on the page to download the installation package for your operating system.
2. Download and install the aws-cli install package. The installation will require local administrator permission.
3. If done correctly, you should be able to open a new PowerShell window and run the command “aws.exe” and see the help screen output.



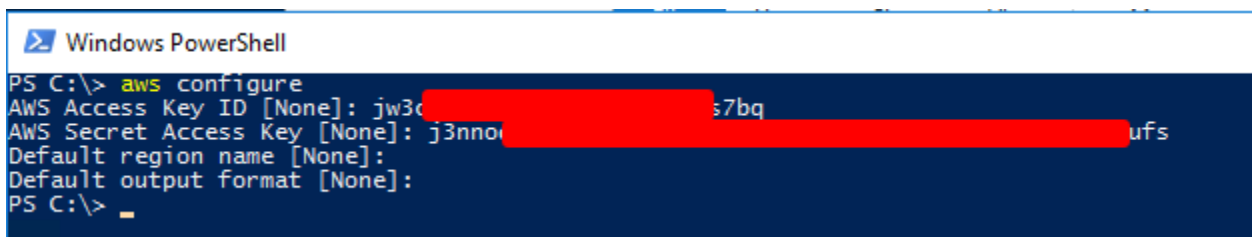
```
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\labadmin> aws.exe
usage: aws [options] <command> <subcommand> [<subcommand> ...] [parameters]
To see help text, you can run:

    aws help
    aws <command> help
    aws <command> <subcommand> help

aws: error: the following arguments are required: command
PS C:\Users\labadmin> _
```

4. We will now add our Access Keys to be stored on the system. The Access Keys credentials will be used moving forward to administer the S3 storage. In PowerShell, type “aws configure” and then provide the Access Keys when prompted. You do not need to enter anything for the default region or default output.



```
Windows PowerShell
PS C:\> aws configure
AWS Access Key ID [None]: jw3c[redacted]s7bq
AWS Secret Access Key [None]: j3nno[redacted]ufs
Default region name [None]:
Default output format [None]:
PS C:\> _
```

5. Create the new bucket with the following command.  
“aws --endpoint-url https://us1-dcs-s3.bifrostcloud.com/ s3 mb s3://[bucket name]”  
The new bucket can be named anything that makes sense to you. For example, I called mine “veeam01-backup-bucket” because it is for Veeam data.



```
PS C:\> aws --endpoint-url https://us1-dcs-s3.bifrostcloud.com/ s3 mb s3://veeam01-backup-bucket
make_bucket: veeam01-backup-bucket
PS C:\> _
```

6. Confirm the new bucket was created using the following command.

“aws --endpoint-url https://us1-dcs-s3.bifrostcloud.com/ s3 ls”

```
PS C:\Users\labadmin> aws --endpoint-url https://us1-dcs-s3.bifrostcloud.com/ s3 ls
2022-10-04 13:15:12 veeam01-backup-bucket
PS C:\Users\labadmin> _
```

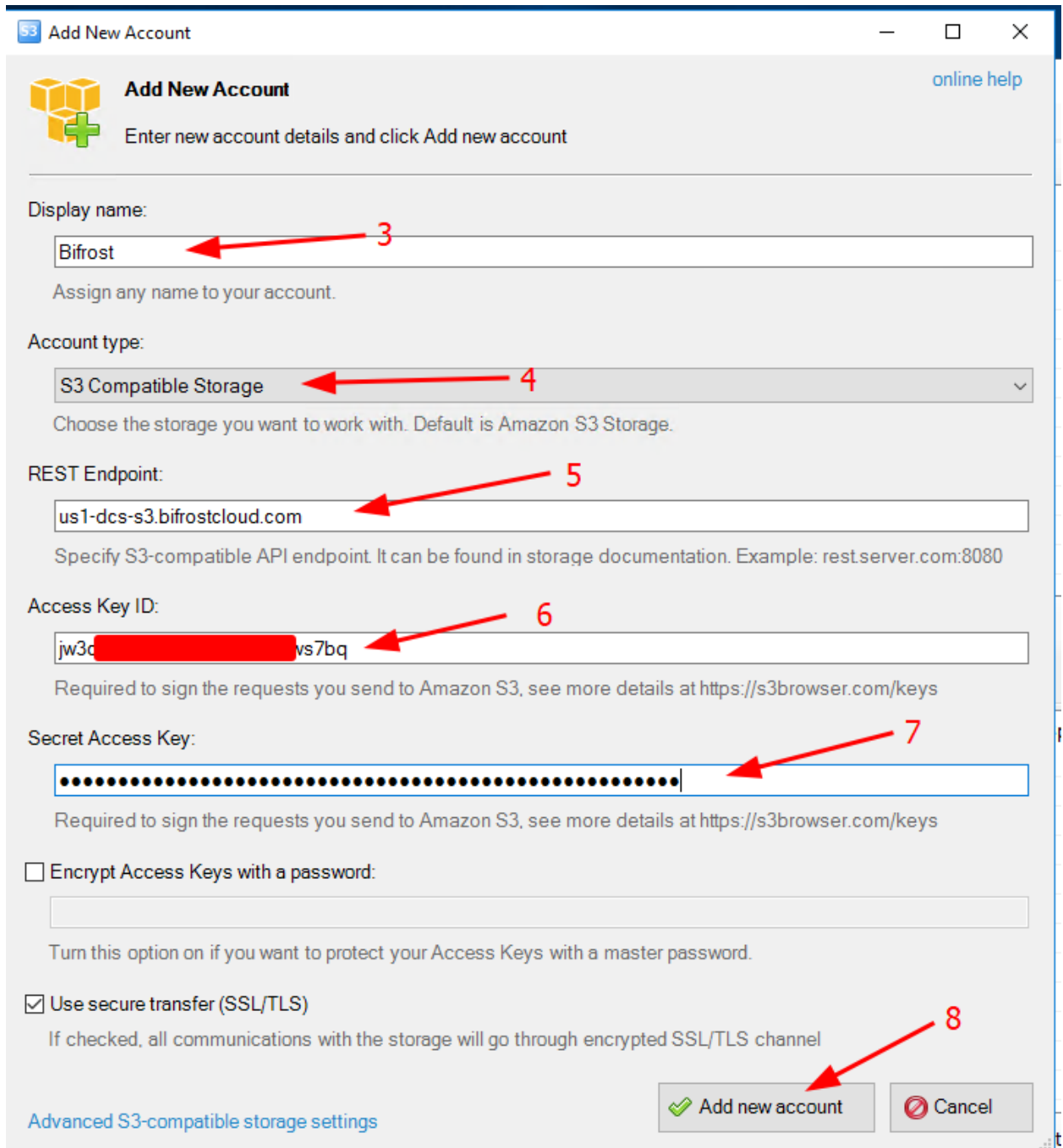
7. Success! You are now ready to start adding data to your new bucket.



### Creation Methods #3: S3 Management Application(Optional)

For those who prefer an application GUI, you can use the **S3 Browser** application. **S3 Browser** is a freeware Windows client for Amazon S3 and Amazon CloudFront.

1. Head to the **S3 Browser** website and locate the [downloads page](#).
2. Download, install, and launch the **S3 Browser**. The installation will require local administrator permission.
3. Enter a "**Display name**" in the Display name field. The name can be anything.
4. Change the "Account Type" to "**S3 Compatible Storage**".
5. The "**REST Endpoint**" is the URL given when you set up the Access Keys in the Bifrost portal. At the time of writing, the URL is "**us1-dcs-s3.bifrostcloud.com**".
6. Fill in the access key you set up previously in Bifrost to the "**Access Key ID**" field.
7. Fill in the secret key you set up previously in Bifrost to the "**Secret Access Key**" field.
8. Finish and close out the Add New Account window by clicking "**Add new account.**"



**Add New Account** online help

Enter new account details and click Add new account

Display name:  3  
Assign any name to your account.

Account type:  4  
Choose the storage you want to work with. Default is Amazon S3 Storage.

REST Endpoint:  5  
Specify S3-compatible API endpoint. It can be found in storage documentation. Example: rest.server.com:8080

Access Key ID:  6  
Required to sign the requests you send to Amazon S3, see more details at <https://s3browser.com/keys>

Secret Access Key:  7  
Required to sign the requests you send to Amazon S3, see more details at <https://s3browser.com/keys>

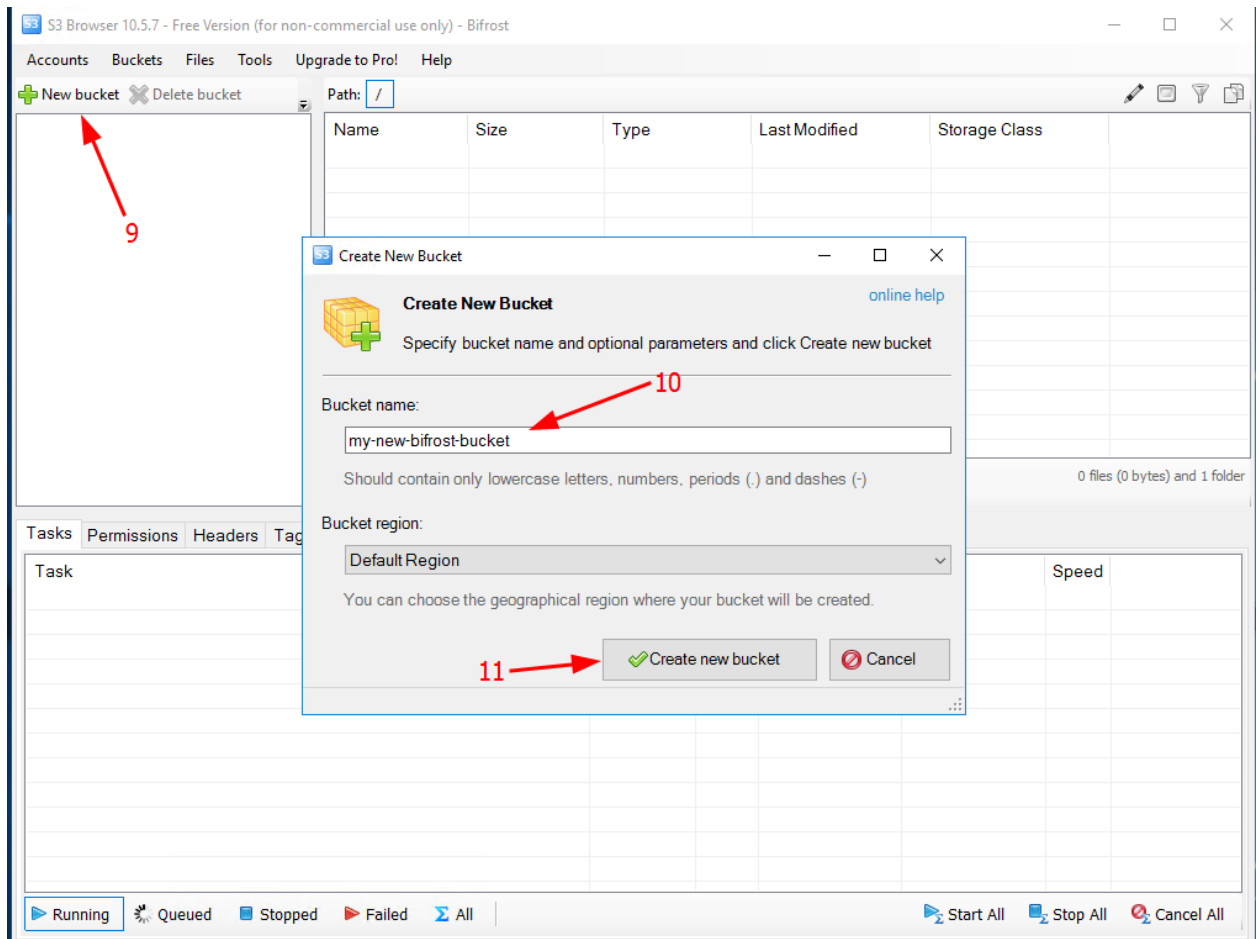
Encrypt Access Keys with a password:  
  
Turn this option on if you want to protect your Access Keys with a master password.

Use secure transfer (SSL/TLS)  
If checked, all communications with the storage will go through encrypted SSL/TLS channel

[Advanced S3-compatible storage settings](#)  8

9. We are now connected to the S3 Bifrost storage. Click on **“New bucket”** to create the new bucket.
10. Enter a **“Bucket Name”** in the Bucket Name name field. The name can be anything.

11. Finally, to complete the new bucket set up and close out of the Create New Bucket window, click **“Create new bucket”**.







Success! You are now ready to start adding data to your new bucket.

