

# Cloud Portam – Blob Receiver

Purpose of this document is to provide an overview of blob receiver utility in Cloud Portam website and providing instructions on how to prepare your Azure Storage Account so that you can receive files in your Azure Blob Storage using this utility.

This document is intended for software developers who are familiar with the concepts of Azure Storage particularly Blob Storage.

## Overview

Blob Receiver is an online utility available on Cloud Portam's website (<http://www.cloudportam.com>) that allows you to safely receive files from other users directly in your storage account without you having to share your storage account key with these users.

## Use Case

You would want to use this utility if:

- You want to receive files from other users yet you don't want to share your account key with those users as sharing the account key with these users would grant full access to your storage account.
- Your users are primarily non-technical users and would not understand the concepts of Azure storage.
- You want your users to upload files in specific blob containers in your storage account.

## Features

Some of the features of this application are:

- Files are uploaded directly in your storage account. User's file information and files are never routed through our servers.
- Supports uploading of both Block and Page blobs.
- Page blob uploads are sparse or in other words this utility smartly skips the pages which are empty thus speeding up the blob upload process.
- Chunked upload is supported. In the current version, default chunk size is 1 MB. Thus any file with size more than 1 MB will automatically be split into chunks of 1 MB and then each chunk is uploaded separately.
- Parallel upload is supported. In the current version, 4 files are uploaded in parallel.
- Supports uploading of both files and folders. Folder upload is only available in Chrome and Opera browser.
- File drag/drop mechanism is supported.

## How it Works?

Essentially this utility makes use of two core functionalities available in Azure Storage:

1. **Cross-Origin Resource Sharing (CORS):** Cross-Origin Resource Sharing (CORS) is a mechanism that allows many resources (e.g., fonts, JavaScript, etc.) on a web page to be requested from another domain outside the domain from which the resource originated. CORS is not specific to Azure Storage but is used to facilitate direct file transfer from a user's web browser to your storage account without having the need to set up a proxy service to receive files from the user and then uploading it in your storage account.
2. **Shared Access Signature (SAS):** Shared Access Signature (SAS) is a functionality available in Azure Storage which allows you (as Storage Account owner) to grant time-limited and permission-bound access to various resources in your storage account.

In order to have your users use this utility, first you have to configure CORS settings for your blob storage account and then create a SAS URL. You will then share the SAS URL with your users along with the URL for this utility. Your users would input this SAS URL and then upload files from their machines (computers, tablets, smart phones etc.) which will be uploaded directly in your storage account.

## Configuring CORS

In this section, we will describe the CORS setting required for this utility to work. Please note that this is one time setting and once CORS setting is configured properly, you don't have to do it again.

### Required CORS Setting

Following table describes the required CORS settings:

<b>Allowed Origin</b>	https://www.cloudportam.com, https://cloudportam.com
<b>Allowed Verbs</b>	PUT
<b>Allowed Headers</b>	*
<b>Exposed Headers</b>	*
<b>Max Age (in Seconds)</b>	3600

### Configuring CORS Setting

You can set the CORS Setting in many ways. You can use any of the Azure Storage management tools available in the market today which has CORS support or you can write code using Azure Storage Client Libraries. Here we will describe how you can do the same using Cloud Portam application (<https://app.cloudportam.com>).

Following steps assume that you are already a user of Cloud Portam application and have added a storage account that you want to manage using the application.

1. Click on the desired storage account on the application home page. You will be taken to that storage accounts dashboard.
2. On the "Blob Service" row, click (or right click/CMD+click) anywhere except the hyperlinked columns as shown in the picture below.

cloudportam (preview) Gaurav Mantri Activity Logs <sup>NEW</sup> ⚙️

Home ▶ cloudportam Permission: Read Only Read Write Full

CORS... Minute Metrics... Hourly Metrics... Logging...

Resource Type	CORS Setting	Secondary Geolocation
<a href="#">Blob Service</a>	✓	<a href="#">Explore</a>   <a href="#">Service Status</a>
<a href="#">File Service (Preview) (Learn More)</a>	N/A	Not Supported ⓘ
<a href="#">Queue Service</a>	✓	<a href="#">Explore</a>   <a href="#">Service Status</a>
<a href="#">Table Service</a>	✓	<a href="#">Explore</a>   <a href="#">Service Status</a>
<a href="#">Azure Diagnostics <sup>NEW</sup></a>	--	N/A
<a href="#">Storage Analytics</a>	--	<a href="#">Explore</a>

3. Click on “CORS”. You will see a popup window like the one shown below.

### Manage CORS Settings - Blob Service

Allowed Origins	Allowed Methods	Allowed Headers	Exposed Headers	Max Age
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↓

Add New CORS Rule Add Cloud Portam CORS Rule Save Cancel

4. Click on “Add New CORS Rule” button on the bottom left corner of the popup window. You will be shown another popup window like the one shown below.

**Manage CORS Settings - Blob Service** ✕

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**Allowed Origins:**

Origins allowed to make cross domain requests

**Allowed Verbs:**

<input type="checkbox"/> Connect	<input type="checkbox"/> Delete	<input type="checkbox"/> Get
<input type="checkbox"/> Head	<input type="checkbox"/> Merge	<input type="checkbox"/> Options
<input type="checkbox"/> Post	<input type="checkbox"/> Put	<input type="checkbox"/> Trace

**Allowed Headers:**

Allowed headers which can be included in cross domain requests

**Exposed Headers:**

Headers which can be included in response to cross domain requests

**Maximum Age (In Seconds):**

3600

5. Fill out the form based on the table described above and press OK button. The table is repeated here for your convenience.

<b>Allowed Origin</b>	https://www.cloudportam.com, https://cloudportam.com
<b>Allowed Verbs</b>	PUT
<b>Allowed Headers</b>	*
<b>Exposed Headers</b>	*
<b>Max Age (in Seconds)</b>	3600

Manage CORS Settings - Blob Service

**Allowed Origins:**  
https://www.cloudportam.com,https://cloudportam.com

**Allowed Verbs:**

<input type="checkbox"/> Connect	<input type="checkbox"/> Delete	<input type="checkbox"/> Get
<input type="checkbox"/> Head	<input type="checkbox"/> Merge	<input type="checkbox"/> Options
<input type="checkbox"/> Post	<input checked="" type="checkbox"/> Put	<input type="checkbox"/> Trace

**Allowed Headers:**  
\*

**Exposed Headers:**  
\*

**Maximum Age (In Seconds):**  
3600

OK Cancel

6. You will be taken back to previous screen. Click on "Save" button to save these changes.

Manage CORS Settings - Blob Service

Allowed Origins	Allowed Methods	Allowed Headers	Exposed Headers	Max Age
https://www.cloudportam.com,https://cloudportam.com	Put	*	*	3600

Add New CORS Rule Add Cloud Portam CORS Rule

Save Cancel

That's it! You're set with CORS settings.

## Creating Shared Access Signature (SAS)

Next step would be to create SAS. Again you can use any of the Azure Storage management tools available in the market today which has SAS support or you can write code using Azure Storage Client Libraries. Here we will describe how you can do the same using Cloud Portam application (<https://app.cloudportam.com>).

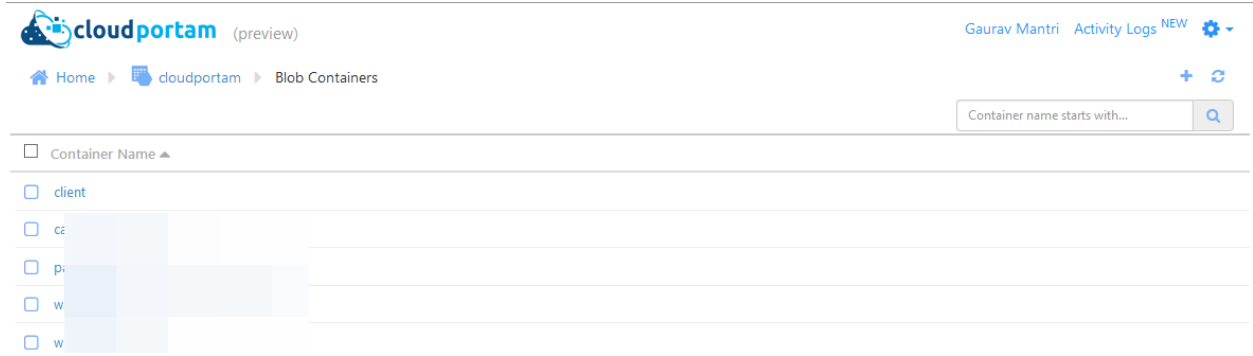
### SAS Requirements

- The SAS should be for a blob container.
- The SAS should have at least “Write” permission.
- SAS should have an expiry date in future.
- SAS should be for your storage account’s primary geo-location in case you have your storage account configured for RA-GRS.
- If you are using any client library to create SAS, it is recommended that you use latest version of those libraries.

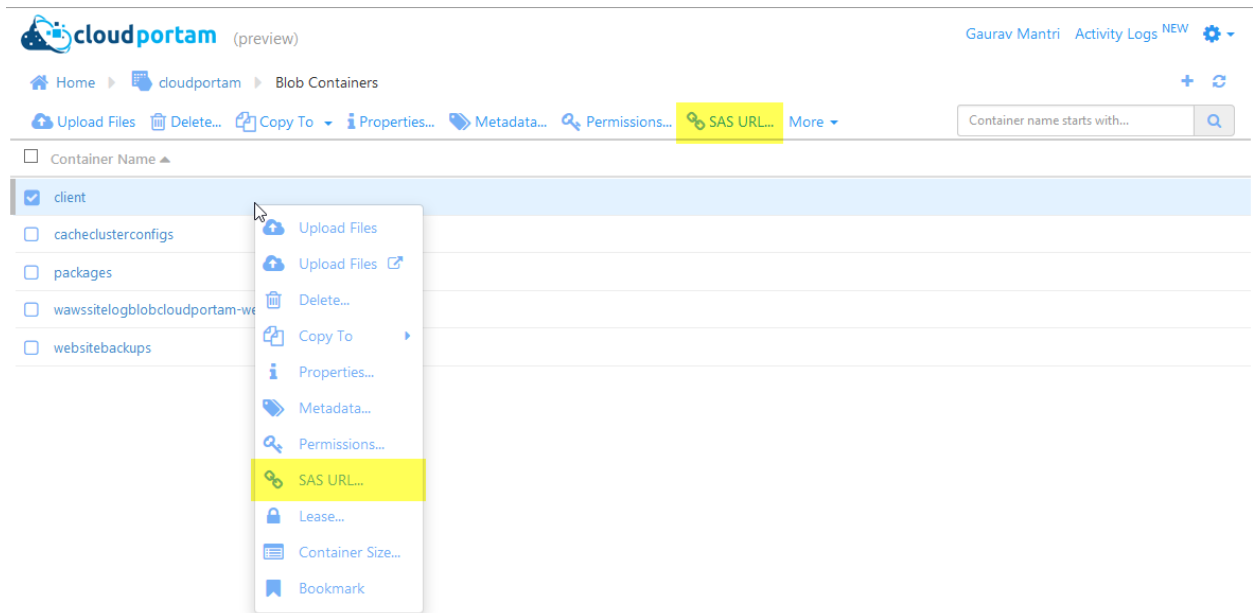
### Creating SAS

In this section, we will describe how you can create a SAS using Cloud Portam application. Following steps assume that you are already a user of Cloud Portam application and have added a storage account that you want to manage using the application.

1. Click on the desired storage account on the application home page. You will be taken to that storage accounts dashboard.
2. Click on “Blob Service”. You will be shown a list of blob containers in that storage account.



3. In this example, we will assume that we want to receive files in “client” blob container. You can also create a new blob container if you would like to receive files in that blob container.
4. On the “client” row, click (or right click/CMD+click) anywhere except the hyperlinked columns as and then click on “SAS URL...” button in the button bar or context menu as shown in the picture below:



5. You will see a popup like shown in picture below. Again for simplicity, we will assume that we want to create an ad-hoc SAS which expires on 16<sup>th</sup> of November 2014 (this document was created on 15<sup>th</sup> of November 2014)

### Blob Container Shared Access Signature

**Name:**  
client

**Access Policy:**  
[Dropdown menu]

**Permissions:**  
 Read     Write     Delete     List

**Shared Access Signature Start Date/Time (in UTC):**  
[Text field] [Calendar icon]

**Shared Access Signature End Date/Time (in UTC):**  
2014-11-16 00:00 [Calendar icon]

< November 2014 >

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

[Refresh icon]

Geo Local    Permission: Read

6. Click "Next" button to create SAS.



### Blob Container Shared Access Signature ✕

**Name:**

**Shared Access Signature (SAS) Token:**

```
?sv=2014-02-14&
sr=c&sig=kj[REDACTED]5fWyLmq0NZSJqxKAapiSs6NmRA%3D&
se=2014-11-16T00%3A00%3A00Z&sp=w
```

**Shared Access Signature (SAS) URL:**

```
https://cloudportam.blob.core.windows.net/client?sv=2014-02-14&
sr=c&sig=kj[REDACTED]5fWyLmq0NZSJqxKAapiSs6NmRA%3D&
se=2014-11-16T00%3A00%3A00Z&sp=w
```

7. Copy the contents of Shared Access Signature (SAS) URL box and this is what you will share with your users.

## Questions or Comments

If you have any questions or comments about this functionality, please feel free to reach out to our support team at [support@cloudportam.com](mailto:support@cloudportam.com) and we will be happy to answer them.