

# How to Set up Amazon S3 Storage in VoipNow 3

In VoipNow, incoming faxes, recorded calls, and voicemail messages are the largest space consumers. By default, these resources are stored locally. VoipNow however allows users to store such resources in the Amazon S3 cloud.

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## Amazon account setup

For an Amazon S3 cloud storage, you need to set up an Amazon account. To do so, go to <http://aws.amazon.com/s3/> and select **Sign Up**.

If you do not have an AWS account already, you are prompted to create one as part of the sign-up process.

## Create S3 bucket for VoipNow storage

1. After registering to Amazon Web Services, you have to sign in to the AWS Console.
2. Open the **Services** drop-down list and select **S3**.
3. Click the **Create Bucket** button.
4. Fill in the bucket name, e.g. voipnowstorage.
5. Select the region for the bucket, e.g. US Standard.
6. Click **Create**. The newly created voipnowstorage appears in the buckets table.

## Set up users and policies

Open the **Services** drop-down list and select **IAM**. This is the AWS Identity and Access Management.

Navigate to the **Users** section and click the **Create New Users** button.

Fill in a name for the new user and make sure the **Generate an access key for each User** check box is selected. Click **Create** and a confirmation pop-up is displayed. Do not close this pop-up!

Click on **Show User Security Credentials** and write down the **Access Key ID** and **Secret Access Key** or or download them as a .csv file.

This step is important as you will use the Access Key and Secret Key later to connect the VoipNow server to the cloud storage.

Pay Attention



If you do not download the credentials now, you will not be able to retrieve the credentials at a later time.

Close the window. The user is added to the list.

Navigate to the **Groups** section and click the **Create New Group** button.

Enter a name for the new group, e.g. VoipNowS3Access.

Continue to customize Permissions and select the **Custom Policy** option.

Fill in a name for the policy, e.g. VoipNowS3AccessPolicy.

Fill in the following in the Policy Document text area:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:ListAllMyBuckets"
      ],
      "Resource": "arn:aws:s3:::*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "s3:ListBucket",
        "s3:GetBucketLocation"
      ],
      "Resource": "arn:aws:s3:::voipnowstorage"
    },
    {
      "Effect": "Allow",
      "Action": [
        "s3:PutObject",
        "s3:GetObject",
        "s3:DeleteObject"
      ],
      "Resource": "arn:aws:s3:::voipnowstorage/*"
    }
  ]
}
```

where **voipnowstorage** is the bucket name we have previously created.

Confirm the group creation. The group is added to the list.

Select the group and then click the **Add Users to Group** button. A pop-up window is displayed.

Select the user you have previously created and add it to the group.

You can also associate the user with a policy from the user section.

Once you have completed these steps, it is time to move on to VoipNow's web interface and configure the storage engine.

## Storage in the cloud setup

In order to set up a storage for your system, you must navigate to **Cloud Management Storage Configuration** and define the storage details to suit your needs.

You can choose between storage on the local disk (POSIX) and storage in the cloud (Amazon S3).

From the **Select Storage** drop-down list, select the **Amazon S3** storage engine and customize the **Amazon S3 Preferences** taking into account the following explanations.

1. The **Availability Zone** requires a descriptive name. For instance, you may fill in a suggestive name referring to the region where you defined your bucket (e.g. USEast).
2. **Availability Zone URL** is the URL specific to the Region where you defined your bucket (see the 'Amazon Simple Storage Service (S3)' section of [this document](#)), e.g. [s3.amazonaws.com](https://s3.amazonaws.com) is the URL for the US Standard region. If you get this wrong, nothing is saved in your S3 bucket.
3. **Bucket**. Specify the name of the bucket you have configured in the previous section.
4. Fill in the **Amazon S3 Credentials**:
  - **Access Key** - This is your user's Access Key ID.
  - **Access Secret** - This is your user's Secret Access Key.
  - **Access Secret** - Confirm the Secret Access Key.
5. Once you have defined all these settings, press **OK**. At this point, you should have cloud storage enabled on your VoipNow server.

## Tips and tricks

If you have previously stored these files locally and decided to use the Amazon S3 service, you should know that old files cannot be transferred to the cloud. They will remain in the local filesystem.

Also, if at a later point you decide to give up on the Amazon S3 service, the files created using Amazon S3 will remain in the cloud, while the new files will be locally stored.

Please note that the VoipNow system is only aware of one S3 bucket. If at a later time you start using another bucket, changing the bucket name into VoipNow will not automatically migrate your data.

To continue accessing old voicemails, faxes, recordings, you will have to perform a migration of these resources between the old bucket and the new one using the Amazon S3 console or any other tool fully supporting the S3 API.

#### Mandatory checkup



Things to check if nothing is saved in your S3 bucket:

- The [policy bucket name](#) is the same with the one you configured in S3 and filled in the **Bucket** field of the VoipNow Web Interface.
- The S3 region you've set up for your bucket is the same with the one set up in the **Availability Zone URL** field of the VoipNow Web Interface.

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