Transferring an AWS EC2 Instance to mCloud

Binh Pham - 2025-05-26 - mCloud

Overview

This guide provides a step-by-step process for exporting an AWS EC2 instance as a raw image for transfer to the Micron21 mCloud platform.

 Note: This guide performs all steps using the AWS root account.

Prerequisites

Before proceeding with the export, ensure that your EC2 instance meets AWS export requirements.

Check EC2 Instance Eligibility

AWS imposes restrictions on instances that can be exported. Your EC2 instance must meet the following criteria:

- The instance must have been imported initially into AWS (i.e., it cannot be an Amazon-provided AMI) or a custom AMI.
- Amazon EBS encryption must not be enabled on the instance.
- You can't export an instance if it contains third-party software provided by AWS. For example, VM Export cannot export Windows or SQL Server instances or any instance created from an image in the AWS Marketplace.

For the full list of export requirements, refer to the AWS VMware Export Prerequisites:
https://docs.aws.amazon.com/vm-import/latest/userguide/vmexport-limits.html

Step 1: Create an S3 Bucket

To store the exported EC2 instance, you need an S3 bucket.

1. In the S3 Dashboard, click Create Bucket.
2. Set a Unique Bucket Name:
    1. Enter a globally unique name, e.g., my-micron21-exports
    2. Avoid spaces or uppercase letters.

3. In Object Ownership, enable ACLs and change Object Ownership to Object writer.

4. Uncheck Block all Public Access.

5. Check: I acknowledge that the current setting might result in this bucket and the objects within becoming public

6. Click Create bucket

Step 2: Grant EC2 Export Permissions

1. In the S3 Console, click on your newly created bucket.

2. Navigate to the Permissions tab.

3. Scroll down to Access control list (ACL) and click Edit.

4. Click Add grantee.

5. Enter the correct Canonical ID for your AWS region:

Region	**Canonical ID**
Asia Pacific (Melbourne)	8b8ea36ab97c280aa8558c57a380353ac7712f01f82c21598afbb17e188b9ad5
AWS GovCloud (US)	af913ca13efe7a94b88392711f6cfc8aa07c9d1454d4f190a624b126733a5602
All other regions	c4d8eabf8db69dbe46bfe0e517100c554f01200b104d59cd408e777ba442a322

For more regions: https://docs.aws.amazon.com/vm-import/latest/userguide/vmexport-prerequisites.html

1. Grant the following permissions:

    1. Objects: Write

    2. Bucket ACL: Read

2. Click Save changes.

Step 3: Export the EC2 Instance as a Raw Image

1. Ensure permissions are set before starting the export.

2. Run the following command in AWS CLI, replacing i-xxxxxxxxxxxxxxxxx with your EC2 instance ID and your-export-bucket with your S3 bucket name:

```
aws ec2 create-instance-export-task \
```

```
--instance-id i-xxxxxxxxxxxxxxxx \

--target-environment kvm \

--export-to-s3-task DiskImageFormat=raw,S3Bucket=your-export-bucket,S3Prefix=exported-instance/
```

Step 4: Monitor the Export Progress

Run the following command in AWS CLI to track the progress:

```
aws ec2 describe-export-tasks
```

Possible Statuses:

- "active" → The export is still in progress.
- "completed" → The raw image file is available in S3.

Step 5: Download the Exported Raw Image

Once the export is completed:

1. Open the S3 Console.
2. Navigate to your-export-bucket/.
3. Locate the raw image file.
4. Click Download

Step 7: Upload the Image to mCloud

1. Log in to the mCloud Dashboard.
2. Navigate to the Project tab → Open the Compute tab → Click Images.
3. Click Create Image.
4. In the Create An Image dialog box, enter the following:

    1. Image Name: Enter a descriptive name.
    2. Image Description: Provide a brief summary.
    3. Image Source: Choose Image File.

4. Format: Select Raw.

5. Click Create Image.

After completing this step, you can create an instance using the newly uploaded image. For further details, refer to this guide: https://support.micron21.com/kb/articles/how-to-create-a-vm-instance-from-an-image-in-mcloud