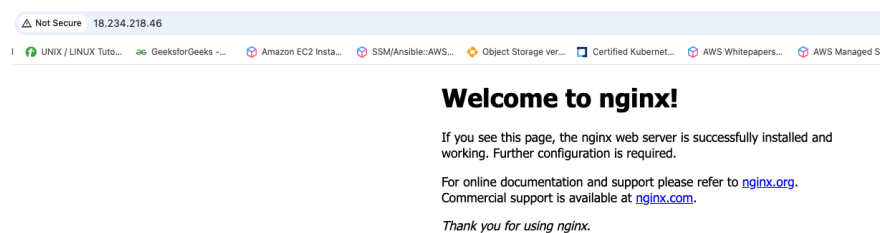


SERVER MIGRATION USING AWS APPLICATION MIGRATION SERVICE

STEP 1:

- Launch an EC2 instance using the below details
 - o AMI = Amazon Linux 2
 - o Subnet = Public
 - o User Data
 - `#!/bin/bash`
`sudo yum update -y`
`sudo amazon-linux-extras install nginx1 -y`
`sudo systemctl enable nginx`
`sudo systemctl start nginx`
 - o Tag your instance
 - o Security Group: Port 80 and 22
 - o Launch with a key pair.
 - o Once the instance is ready, copy public IP on a web browser and confirm if you can see the nginx welcome page.
 - o SSH into the server and create a test file and test directory

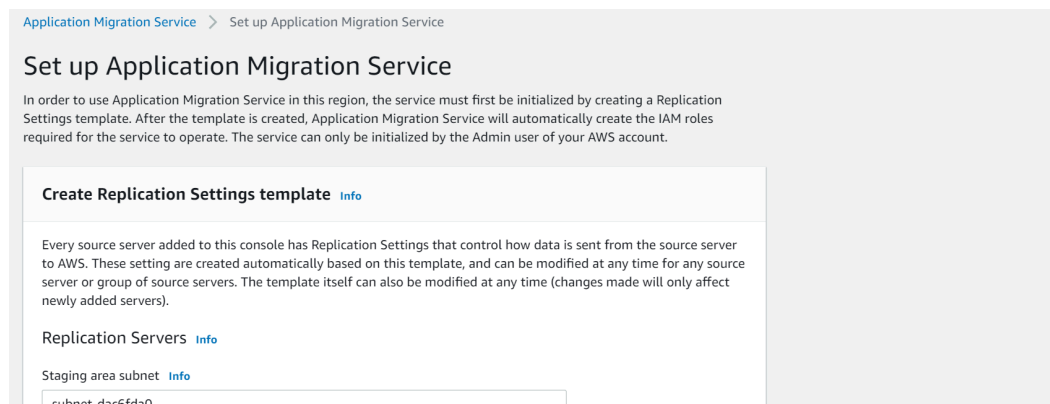


- o SSH into the server and create a test file and test directory

STEP 2:

- **Initialize MGN and Create Replication settings template**
the 1st setup step (for 1st time using MGN is to initialize the service)

- o Switch to **MGN** on the **AWS** console and click **Get Started**. this will prompt you to initialize the service.
- o click on **Set up service** to Initialize and Create a Replication Settings template.
- o Subnet = Public subnet (Preferably in the same VPC as source instance to avoid troubleshooting networking or creating peering connections)
- o Instance type = t2.micro
- o Security Group = Always use Application Migration Service security group



- o If your replication settings template is already created, you can make changes by going into settings.

o **Add a Source Server.**

In order to add source servers,

- On the MGN console, navigate to Source servers and click on **Add server**. this will open window to help generate the agent installer based on your O.S
 - Select Operating system: Linux
 - select your replication preferences: Replicate all disks
 - provide Access key / Secret Keys of a user with appropriate permissions
 - copy the generate commands on the console (5) and (6) and run on your ec2-instance.

This downloads and installs the Agent on the server.

Application Migration Service

Servers

Source servers

Applications

Waves

Global view

Launch history

MGN connectors

▼ Import and Export

Import

Export

▼ Settings

Replication template

Launch template

Post-launch template

User preferences

AWS Migration Hub

Documentation

Release Notes

Add server

To add your source server to this console, you need to install the AWS Replication Agent on it. Use the options below to construct the installation command, then copy the command and download the installer. [Learn more](#)

Agentless replication is available. [Learn more](#)

AWS Replication Agent installation

- Select your operating system
 - ☒ Linux
 - ☐ Windows
 - Legacy OS: Windows Server 2003, Windows Server 2008 or Windows Server 2008 R2
- Select your replication preferences [Info](#)
 - Replicate all disks
- Provide the required credentials [Info](#)

Create an IAM role or user with the `AWSApplicationMigrationAgentInstallationPolicy` policy.

IAM access key ID

AKIAW...

IAM secret access key

This form does not send the secret – it only adds it to the installation command you can copy

nzyOt2ob...

Hide

Session token

Session token is only required when using temporary credentials
- User provided resource id - optional [Info](#)
- Download the installer using this command:

```
sudo wget -O ./aws-replication-installer-init https://aws-applica
```

If you need to validate the installer hash, the correct hash can be found here:
<https://aws-application-migration-service-hashes-us-east-1.s3.us-east-1.amazonaws.com/latest/linux/aws-replication-installer-init.sha512>

Copy

- Copy and input the command below into the command line on your source server

```
et-access-key nzyOt2ob5M6acaKVFMejpCexUt8Kgfc/28H6ILk --no-prompt
```

Copy

Back

```
[ec2-user@ip-172-31-19-228 ~]$ sudo wget -O ./aws-replication-installer-init https://aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com/latest/linux/aws-replication-installer-init
--2024-09-06 17:29:26-- https://aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com/latest/linux/aws-replication-installer-init
Resolving aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com (aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com)... 3.5.14.131, 16.15.176.112, 52.216.9.70, ...
Connecting to aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com (aws-application-migration-service-us-east-1.s3.us-east-1.amazonaws.com)|3.5.14.131|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10550888 (10M) [binary/octet-stream]
Saving to: './aws-replication-installer-init'

100%[-----] 10,550,888 --K/s in 0.09s

2024-09-06 17:29:26 (116 MB/s) - './aws-replication-installer-init' saved [10550888/10550888]

[ec2-user@ip-172-31-19-228 ~]$ sudo chmod +x aws-replication-installer-init; sudo ./aws-replication-installer-init --region us-east-1 --aws-access-key-id AKIAWIPSMUEPJYNTZ2 --aws-secret-access-key nzyOt2ob5M6acaKVFMejpCexUt8Kgfc/28H6ILk --no-prompt
The installation of the AWS Replication Agent has started.
Identifying volumes for replication.
Identified volume for replication: /dev/xvda of size 8 GiB
All volumes for replication were successfully identified.
Downloading the AWS Replication Agent onto the source server...
Finished.
Installing the AWS Replication Agent onto the source server...
Finished.
Syncing the source server with the Application Migration Service Console...
Finished.
The following is the source server ID: a-345alc54734dc70b.
You now have 1 active source server out of a total quota of 150.
Learn more about increasing source servers limit at https://docs.aws.amazon.com/mgn/latest/ug/MGN-service-limits.html
The AWS Replication Agent was successfully installed.
[ec2-user@ip-172-31-19-228 ~]$
```

- After Running the commands, we will find the source server will appear on the console like below.

- Give it some time for replication to complete and the Migration life cycle shows **Ready for testing**.

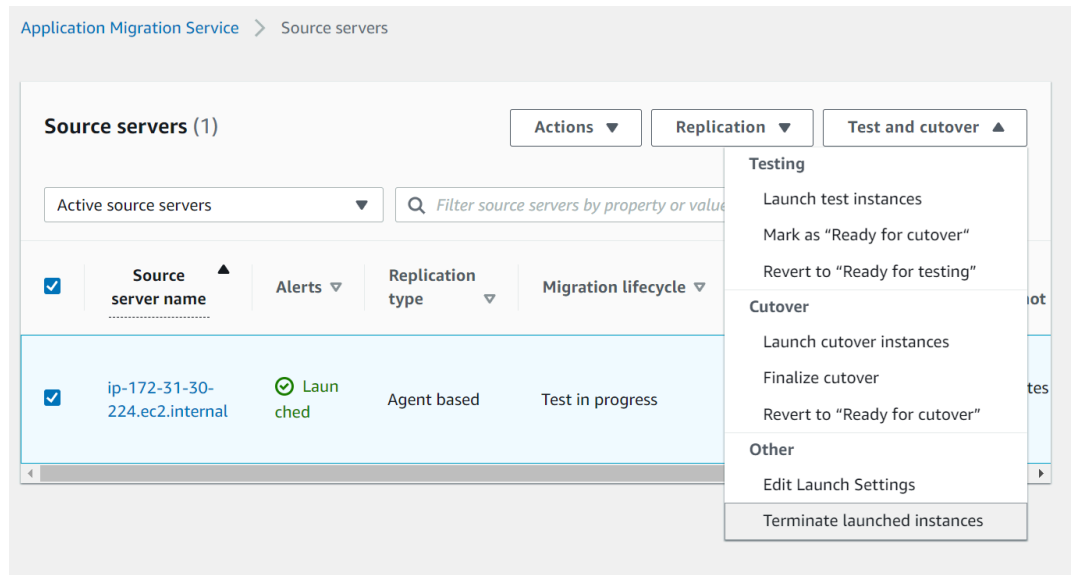
<input type="checkbox"/>	Source server name ▲	Alerts ▼	Replication type ▼	Migration lifecycle ▼	Data replication status	Last snapshot
<input type="checkbox"/>	ip-172-31-30-224.ec2.internal	-	Agent based	Ready for testing	Healthy	13 minute ago

STEP 3: Edit Launch settings

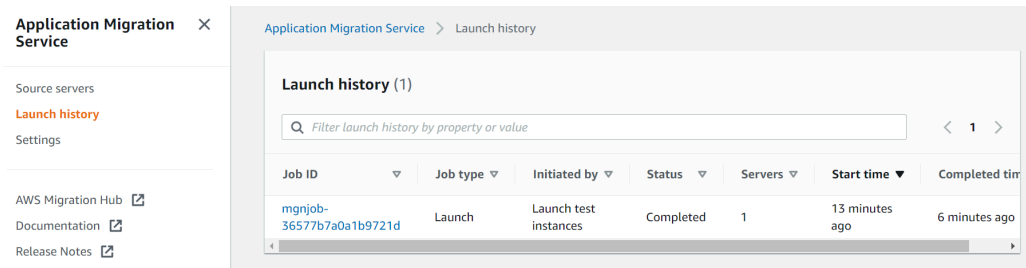
- o Go to MGN, select the server, click on Test and cutover and click on edit launch settings.
- o Make all changes in the launch template on Networking and Security groups
- o Create a new version of the template
- o Select Launch template and set the default version to the latest version

STEP 4: Launch test instance

- Select the server and click on Test and cut over and select launch test instances.



- It will create a test instance and marked it as Ready for cutover. To see this, click on Launch history.



- Under the launch history we will be able to see a job, click on the job and see the logs.

Job log Info		
<input type="text" value="Filter job log by property or value"/> < 1 2 >		
Time	Event	Additional data
April 10, 2022, 17:19 (UTC+5:30)	Job started	
April 10, 2022, 17:19 (UTC+5:30)	Started taking snapshot	Source server : ip-172-31-30-224.ec2.internal
April 10, 2022, 17:20 (UTC+5:30)	Finished taking snapshot	Source server : ip-172-31-30-224.ec2.internal
April 10, 2022, 17:20 (UTC+5:30)	Conversion started	Source server : ip-172-31-30-224.ec2.internal
April 10, 2022, 17:23 (UTC+5:30)	Conversion ended	Source server : ip-172-31-30-224.ec2.internal Conversion Server instance ID: i-0e4087d7d90027119
April 10, 2022, 17:23 (UTC+5:30)	Started launching test/ cutover EC2 instance	Source server : ip-172-31-30-224.ec2.internal
April 10, 2022, 17:26 (UTC+5:30)	Successfully launched test/ cutover EC2 instance	Source server : ip-172-31-30-224.ec2.internal Test/ cutover instance ID: i-

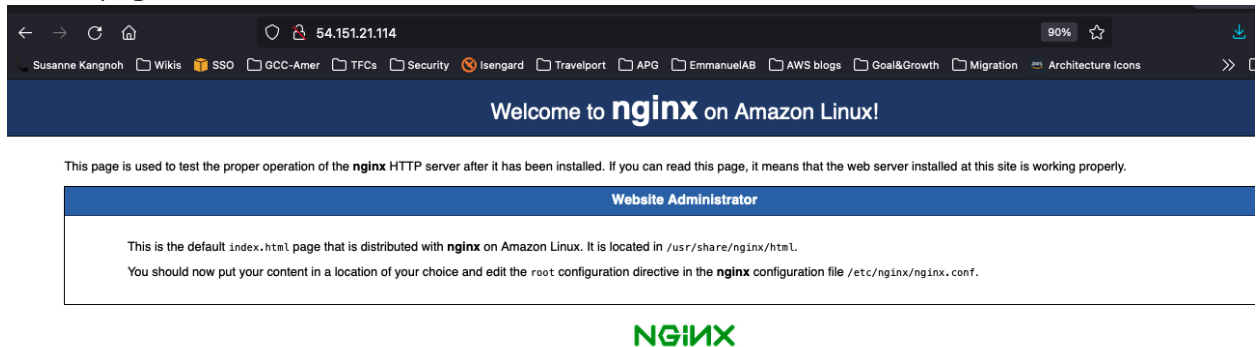
Source servers (1)	
<input type="text" value="Filter source servers by property or value"/> < 1 >	
Source server name	Status
ip-172-31-30-224.ec2.internal	Launched

STEP 5: TEST

- To verify, go to ec2 console, and see the launched server.

<input checked="" type="checkbox"/>	ip-172-31-30-224.ec2.internal	i-0c842890f0b5a1df8	Running	c4.large	2/2 checked
Instance: i-0c842890f0b5a1df8 (ip-172-31-30-224.ec2.internal)					
Select an instance above					
<div> <div>Details</div> <div>Security</div> <div>Networking</div> <div>Storage</div> <div>Status checks</div> <div>Monitoring</div> <div>Tags</div> </div>					
▼ Security details					
IAM Role		Owner ID		Launch time	
SSMDefaultRoleForPVREReporting		186433656069		Sun Apr 10 2022 17:26:56 GMT+0530 (India)	

Copy the public IP and place in a web browser to see your Nginx test page.



- To verify the data login inside the server, SSH and check the file you created in the source server.

Once testing is done you can launch cut over instances.