Prerequisites

OnPremise VM (Preferably in VMWare / Virtualbox)

If you have \*.vmdk image of your VM that will also be enough

MUST: You should have the uid/password to log into this VM

AWS CLI with access to Administrator privileges

You can tighten it down based on your requirements

Export VM & Upload to S3

Depending on virtualization tool, use the appropriate procedure to export your VM into \*.vmdk or \*.ova image. Upload the image to S3 Bucket and note down the bucket\_name and vm\_image\_name.

Global Customization Variables

bucket\_name="n-backup"

# Add the appropriate S3 Prefix to the VM Image

vm\_image\_name="VM-Import/vCentOS7-disk002.vmdk"

Create Trust Policy

Create the IAM trust policy json with the name trust-policy.json

cat > "trust-policy.json" << "EOF"

{

"Version": "2012-10-17",

"Statement": [

{

"Effect": "Allow",

"Principal": { "Service": "vmie.amazonaws.com" },

"Action": "sts:AssumeRole",

"Condition": {

"StringEquals":{

"sts:Externalid": "vmimport"

}

}

}

]

}

EOF

Create the IAM Role for VM Import

Ensure that you create the role with the name vmimport. Use the trust policy created in the previous step

aws iam create-role --role-name vmimport --assume-role-policy-document "file://trust-policy.json"

Create the IAM Policy: role-policy.json

This policy will be attached to the role vmimport created in the previous step. The bucket name is picked up from the global variable.

echo '{

"Version":"2012-10-17",

"Statement":[

{

"Effect":"Allow",

"Action":[

"s3:GetBucketLocation",

"s3:GetObject",

"s3:ListBucket"

],

"Resource":[

"arn:aws:s3:::'${bucket\_name}'",

"arn:aws:s3:::'${bucket\_name}'/\*"

]

},

{

"Effect":"Allow",

"Action":[

"ec2:ModifySnapshotAttribute",

"ec2:CopySnapshot",

"ec2:RegisterImage",

"ec2:Describe\*"

],

"Resource":"\*"

}

]

}

' | sudo tee role-policy.json

Attach policy to IAM Role:vmimport

aws iam put-role-policy --role-name vmimport \

--policy-name vmimport \

--policy-document "file://role-policy.json"

Begin VM Image Import Task

The following command will begin the import of the VM Image. The S3 Bucket name & Bucket Key is picked up from the global variables.

# Set the metadata,

echo '[

{

"Description": "centosv7",

"Format": "vmdk",

"UserBucket": {

"S3Bucket": "'${bucket\_name}'",

"S3Key": "'${vm\_image\_name}'"

}

}]

' > containers.json

Begin VM Import

aws ec2 import-image --description "centosv7" --disk-containers "file://containers.json"

The expected output,

{

"Description": "centosv7",

"ImportTaskId": "import-ami-0d6db3a35d431e4e3",

"Progress": "2",

"SnapshotDetails": [

{

"DiskImageSize": 0.0,

"Format": "VMDK",

"UserBucket": {

"S3Bucket": "n-backup",

"S3Key": "VM-Import/vCentOS7-disk002.vmdk"

}

}

],

"Status": "active",

"StatusMessage": "pending"

}

Note down the ImportTaskId to check the progress of the import job.

Check status of VM Import Jobs

aws ec2 describe-import-image-tasks --import-task-ids "import-ami-0d6db3a35d431e4e3"

Check VM Import Progress

# VM Image being updated to AMI

[root:tmp]# aws ec2 describe-import-image-tasks --import-task-ids "import-ami-0d6db3a35d431e4e3"

{

"ImportImageTasks": [

{

"Description": "centosv7",

"ImportTaskId": "import-ami-0d6db3a35d431e4e3",

"Progress": "30",

"SnapshotDetails": [

{

"Description": "centosv7",

"DiskImageSize": 931182592.0,

"Format": "VMDK",

"Status": "completed",

"UserBucket": {

"S3Bucket": "n-backup",

"S3Key": "VM-Import/vCentOS7-disk002.vmdk"

}

}

],

"Status": "active",

"StatusMessage": "updating"

}

]

}

Completion Status

[root:tmp]# aws ec2 describe-import-image-tasks --import-task-ids "import-ami-0d6db3a35d431e4e3"

{

"ImportImageTasks": [

{

"Architecture": "x86\_64",

"Description": "centosv7",

"ImageId": "ami-0da97e2296167b5ca",

"ImportTaskId": "import-ami-0d6db3a35d431e4e3",

"LicenseType": "BYOL",

"Platform": "Linux",

"SnapshotDetails": [

{

"Description": "centosv7",

"DeviceName": "/dev/sda1",

"DiskImageSize": 931182592.0,

"Format": "VMDK",

"SnapshotId": "snap-0dc6d32a5924b22c7",

"Status": "completed",

"UserBucket": {

"S3Bucket": "n-backup",

"S3Key": "VM-Import/vCentOS7-disk002.vmdk"

}

}

],

"Status": "completed"

}

]

}

Launch New EC2

Once you launch the VM, you can login using the same uid/password you used onpremise. Typically in real-world you will clean this before the import task and setup SSH key-based authentication