Evaluating and Performing Server Migration to Azure

Lab: Implementing Azure to Azure migration

Scenario

Adatum Corporation wants to migrate their existing Azure VMs to another region

Objectives

After completing this lab, you will be able to:

- Implement Azure Site Recovery Vault
- Migrate Azure VMs between Azure regions

Lab Setup

Estimated Time: 45 minutes

User Name: **Student**

Password: **Pa55w.rd**

Exercise 1: Implement prerequisites for migration of Azure VMs by using Azure Site Recovery

The main tasks for this exercise are as follows:

1. Deploy an Azure VM to be migrated
2. Create an Azure Recovery Services vault

Task 1: Deploy an Azure VM to be migrated

1. From the lab virtual machine, start Microsoft Edge and browse to the Azure portal at **http://portal.azure.com** and sign in by using the Microsoft account that has the Owner role in the target Azure subscription.
2. In the Azure portal, in the Microsoft Edge window, start a **PowerShell** session within the **Cloud Shell**.
3. If you are presented with the **You have no storage mounted** message, configure storage by clicking on **Show advanced settings** and using the following settings:
    - Subsciption: the name of the target Azure subscription
    - Cloud Shell region: the name of the Azure region that is available in your subscription and which is closest to the lab location
    - Resource group: the name of a new resource group **az3000600-LabRG**

- Storage account: a name of a new storage account
- File share: a name of a new file share

4. From the Cloud Shell pane, create a resource group by running (replace the `<Azure region>` placeholder with the name of the Azure region that is available in your subscription and which is closest to the lab location)

```
New-AzureRmResourceGroup -Name az3000601-LabRG -Location <Azure region>
```

5. From the Cloud Shell pane, upload the Azure Resource Manager template **C:\allfiles\AZ-300T02\Module_01\azuredeploy06.json** into the home directory.

6. From the Cloud Shell pane, upload the parameter file **C:\allfiles\AZ-300T02\Module_01\azuredeploy06.parameters.json** into the home directory.

7. From the Cloud Shell pane, deploy an Azure VM hosting Windows Server 2016 Datacenter by running:

```
New-AzureRmResourceGroupDeployment -ResourceGroupName az3000601-LabRG `
-TemplateFile ~\azuredeploy06.json `
-TemplateParameterFile ~\azuredeploy06.parameters.json

> **Note**: Do not wait for the deployment to complete but instead
proceed to the next task.
```

Task 2: Implement an Azure Site Recovery vault

1. From Azure Portal, create an instance of **Backup and Site Recovery (OMS)** Recovery Services vault with the following settings:
   - Name: **vaultaz3000602**
   - Subscription: the name of the target Azure subscription
   - Resource group: the name of a new resource group **az3000602-LabRG**
   - Location: the name of an Azure region that is available in your subscription and which is different from the region you deployed an Azure VM in the previous task

2. Wait until the vault is provisioned. This will take about a minute.

Result: After you completed this exercise, you have created an Azure VM to be migrated and an Azure Site Recovery vault that will host the migrated disk files of the Azure VM.

Exercise 2: Migrate an Azure VM between Azure regions by using Azure Site Recovery

The main tasks for this exercise are as follows:

1. Configure Azure VM replication

2. Review Azure VM replication settings
3. Disable replication of an Azure VM and delete the Azure Recovery Services vault

Task 1: Configure Azure VM replication

1. In the the Azure portal, navigate to the blade of the newly provisioned Azure Recovery Services vault.
2. Set the protection goal to **Azure VMs to Azure**.
3. Enable replication by specifying the following settings:
   - Source: **Azure**
   - Source location: the same Azure region into which you deployed the Azure VM in the previous exercise of this lab
   - Azure virtual machine deployment model: **Resource Manager**
   - Source resource group: **az3000601-LabRG**
   - Virtual machines: **az300061-vm**
   - Target location: the name of an Azure region that is available in your subscription and which is different from the region you deployed an Azure VM in the previous task
   - Target resource group: **(new) az3000601-LabRG-asr**
   - Target virtual network: **(new) az3000601-vnet-asr**
   - Cache storage account: accept the default setting
   - Replica managed disks: **(new) 1 premium disk(s), 0 standard disk(s)**
   - Target availability sets: **Not Applicable**
   - Replication policy: **Create new**
   - Name: **12-hour-retention-policy**
   - Recovery point retention: **12 Hours**
   - App consistent snapshot frequency: **6 Hours**
   - Multi-VM consistency: **No**
4. Initiate creation of target resources.
5. Enable the replication.

   Note: Wait for the operation of enabling the replication to complete. Then proceed to the next task.

Task 2: Review Azure VM replication settings

1. In the Azure portal, from the Azure Site Recovery vault blade, navigate to the replicated item blade representing the Azure VM **az3000601-vm**.

2. On the replicated item blade, review the **Health and status**, **Latest available recovery points**, and **Failover readiness** sections. Note the **Failover** and **Test Failover** entries in the toolbar. Scroll down to the **Infrastructure view**.

3. If time permits, wait until the status of the Azure VM changes to **Protected**. This might take additional 15-20 minutes. At that point, examine the values **Crash-consistent** and **App-consistent** recovery points. In order to view **RPO**, you should perform a test failover.

Task 3: Disable replication of an Azure VM and delete the Azure Recovery Services vault

1. In the Azure portal, disable replication of the Azure VM **az3000601-vm**.

2. Wait until the replication is disabled.

3. From the Azure portal, delete the Recovery Services vault.

   Note: You must ensure that the replicated item is removed first before you can delete the vault.

Result: After you completed this exercise, you have implemented automatic replication of an Azure VM.