Deploying Network Controller

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MSSA Cohort #2

Lab Summary 11

2/26/2020

Configuring Advanced Hyper-V Network Features

The company decided to deploy Network Controller to manage network devices and services. The administrators set up a trial for this technology in a single virtual machine before deploying it in the real world. First off, the Active Directory Domain Services security groups should be configured, and the administrators should obtain a certificate to encrypt the Network Controller server. Then, the Network Controller has many options; the administrators will utilize those options to configure with the Windows PowerShell to deploy the Network Controller server.

What is Network Controller?

This feature provides centralized management, monitoring, troubleshooting, and configuring in virtual and physical network infrastructure after implementing Software Defined Networking (SDN). If this feature is configured, the administrators do not need to configure network devices and services manually. There are two different application programming interfaces (APIs), such as Southbound API and the Northbound API. When one is communicating with the network, the other, Northbound API provides the admins to communicate with the Network Controller. Also, this will be deployed in AD DS so that it authenticates users and devices with Kerberos protocol. Even though it is in the non-domain environment, the authentication process is necessary so that the admins should deploy a digital certificate.

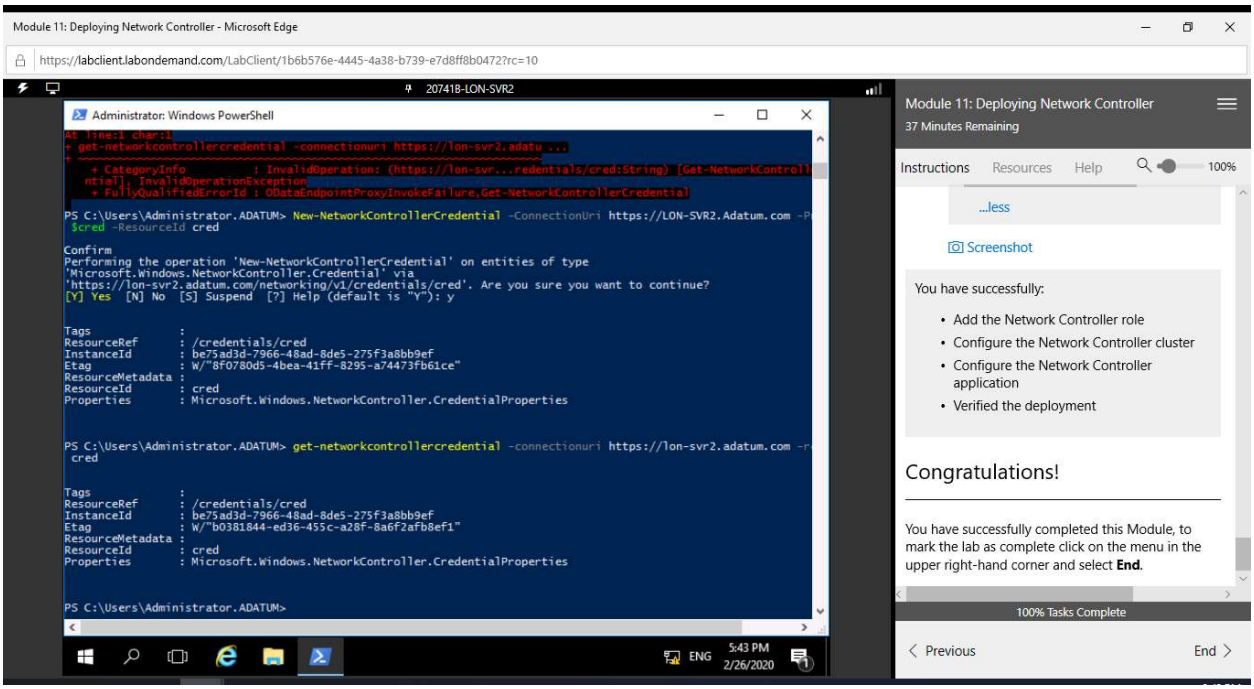
Requirements for Network Controller

The Network Controller can be deployed only on Windows Server 2016 Datacenter edition so that the lab environment is on the Datacenter edition. Also, since the administrators configure the Network Controller in a domain, they should create appropriate AD DS security

groups. In the Active Directory Users and Computers in the Server Manager, the correct domain name and group should be configured. In the lab, Beth is one of the ones to select as members because she is the domain administrator. Also, using MMC, the digital certificate is enrolled in order to authenticate the Network Controller.

Network Controller Server Role

There are steps to deploy the Network Controller server role. One of them is the Network Controller cluster, which provides high availability and scalability for the applications. The Network Controller is the cornerstone in the SDN management so that the administrators should deploy the Network Controller in the multiple VMs or servers. Another option is to configure the Network Controller application.


Module 11: Deploying Network Controller - Microsoft Edge
https://labclient.labondemand.com/LabClient/1b6b576e-4445-4a38-b739-e7d8ff8b0472?rc=10
207418-LON-SVR2
Administrator: Windows PowerShell
At line:1 char:1
+ get-networkcontrollercredential -connectionuri https://lon-svr2.adatu ...
+ ~~~~~~
+ CategoryInfo : InvalidOperation: (https://lon-svr...redentials/cred:String) [Get-NetworkControll
ntial], InvalidOperationException
+ FullyQualifiedErrorId : ODataEndpointProxyInvokeFailure,Get-NetworkControllerCredential
PS C:\Users\Administrator.ADATUM> New-NetworkControllerCredential -ConnectionUri https://LON-SVR2.Adatum.com -P
$cred -ResourceId cred
Confirm
Performing the operation 'New-NetworkControllerCredential' on entities of type
'Microsoft.Windows.NetworkController.Credential' via
'https://lon-svr2.adatum.com/networking/v1/credentials/cred'. Are you sure you want to continue?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y
Tags :
ResourceRef : /credentials/cred
InstanceId : be75ad3d-7966-48ad-8de5-275f3a8bb9ef
Etag : W/"8f0780d5-4bea-41ff-8295-a74473fb61ce"
ResourceMetadata :
ResourceId : cred
Properties : Microsoft.Windows.NetworkController.CredentialProperties
PS C:\Users\Administrator.ADATUM> get-networkcontrollercredential -connectionuri https://lon-svr2.adatum.com -r
cred
Tags :
ResourceRef : /credentials/cred
InstanceId : be75ad3d-7966-48ad-8de5-275f3a8bb9ef
Etag : W/"b0381844-ed36-455c-a28f-8a6f2afb8ef1"
ResourceMetadata :
ResourceId : cred
Properties : Microsoft.Windows.NetworkController.CredentialProperties
PS C:\Users\Administrator.ADATUM>
ENG 5:43 PM 2/26/2020
Module 11: Deploying Network Controller
37 Minutes Remaining
Instructions Resources Help 100%
...less
Screenshot
You have successfully:
Add the Network Controller role
Configure the Network Controller cluster
Configure the Network Controller application
Verified the deployment
Congratulations!
You have successfully completed this Module, to mark the lab as complete click on the menu in the upper right-hand corner and select End.
100% Tasks Complete
Previous
End