

Step-by-Step Guide for Azure RDS Deployment

Prepared for

Service Providers

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Revision and Signoff Sheet

Change Record

Date	Author	Version	Change Reference
March 16, 2018	Manish Dhall	1.0	Initial draft for review/discussion

Reviewers

Name	Version Approved	Position	Date

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Provisioning a Remote Desktop Services (RDS) Deployment can be generally achieved in two ways.

1. Using the ARM Template
2. Manual Deployment

This document provides the step-by-step procedure to create an RDS Deployment using both the ARM Template and the Manual process.

Relevant Terms

The following terms are used in this document.

- RDS- Remote Desktop Services
- VM- Virtual Machine
- RD- Remote Desktop
- SHS- Session Host Server
- CB- Connection Broker
- Apps- Applications
- AD- Active Directory
- DC- Domain Controller
- AAD- Azure Active Directory
- OU- Organization Unit
- FQDN- Fully Qualified Domain Name

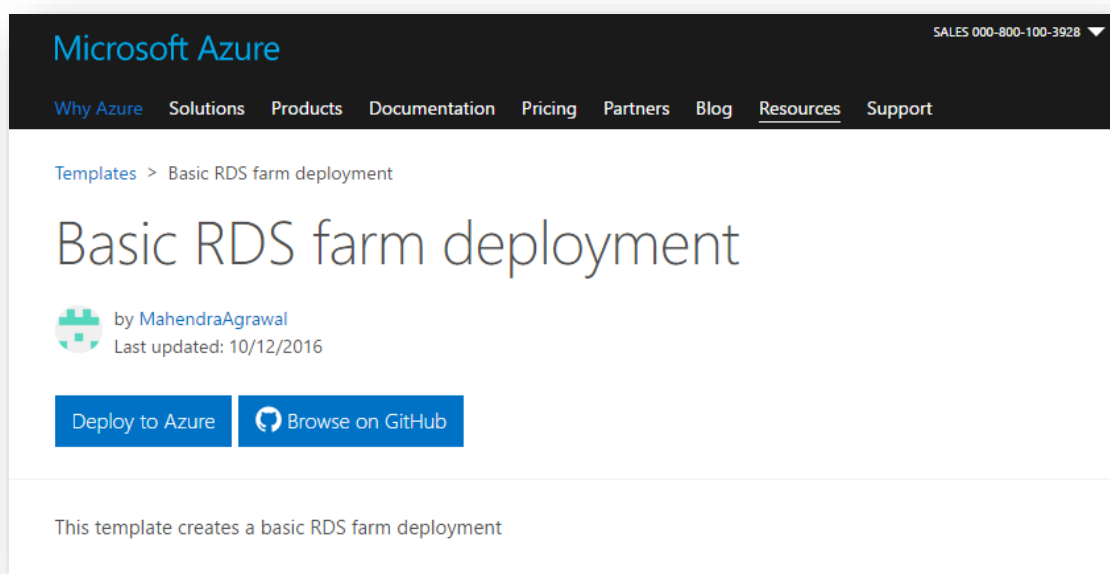
Deploying RDS using the Azure ARM template

Installation Procedure

1. Estimated Time to Complete: 2 hours
2. Refer to the screenshots provided below

RDS Deployment Using the ARM Template

1. Login to the **Azure Portal** with valid credentials at <https://portal.azure.com>
2. Open the **Azure Quick start template** page at <https://azure.microsoft.com/en-us/resources/templates/rds-deployment/>
3. Click **Deploy to Azure**



4. The **ARM template deployment** page will launch. Specify details under the **BASIC** section
 - **Subscription:** Select the existing subscription for deployment from the dropdown list
 - **Resource Group:** Create a new resource group or select an existing resource group from the dropdown
 - **Location:** Select a datacenter location from the Location dropdown

The screenshot shows the Azure portal interface for the 'Basic RDS farm deployment' quickstart template. The left sidebar contains navigation icons. The main content area is divided into 'TEMPLATE' and 'BASICS' sections. The 'BASICS' section is highlighted with a red box and contains the following fields:

- Subscription:** A dropdown menu with 'RDSFarm1' selected.
- Resource group:** Radio buttons for 'Create new' (selected) and 'Use existing'.
- Location:** A dropdown menu with 'East US 2' selected.
- Gwdns Label Prefix:** An empty text input field.
- Gwpublic IP Address Name:** A text input field with 'gwpip' entered.
- Ad Domain Name:** A text input field with 'contoso.com' entered.

At the bottom of the 'BASICS' section, there is a 'Pin to dashboard' checkbox and a blue 'Purchase' button.

5. Specify the following details under **SETTINGS**

- **Gwdns Label Prefix:** Enter the gateway server DNS 'westus.cloudapp.azure.com'. Up to 62 characters, digits, or dashes, lower case, should start with a letter: must conform to `^[a-z][a-z0-9-]{1,61}[a-z0-9]$`, should start with a letter: must conform to `^[a-z][a-z0-9-]{1,61}[a-z0-9]$`
- **Gwpublic IP Address:** This IP address can be set to Default
- **Ad Domain Name:** Enter the Domain Name – for example, contoso.com
- **Admin Username:** Enter the Admin Username
- **Admin Password:** Enter the Admin Password. The password must contain 1 upper case character, 1 lower case character, 1 number, 1 special character, and be a maximum of 8 characters
- **Image SKU:** Select either 2016 Server or 2012 R2-Datacenter from the dropdown list
- **Number of RDSH Instances:** Specify the number of required RDSH instances to deploy
- **RDSH VM Size:** Specify the RDSH instance VM size from the dropdown list

Microsoft Azure New > Basic RDS farm deployment

Basic RDS farm deployment
Azure quickstart template

SETTINGS

* Gw dns Label Prefix

Gwpublic IP Address Name

Ad Domain Name

Admin Username

Admin Password

Image SKU

Number Of Rds Instances

Rds Vm Size

TERMS AND CONDITIONS

[Template information](#) | [Azure Marketplace Terms](#) | [Azure Marketplace](#)

☐ Pin to dashboard

[Purchase](#)

- On the **Terms and Conditions** dialog, read all the terms and conditions and click the checkbox "I agree to the terms and conditions stated above" and then click **Purchase**

TERMS AND CONDITIONS

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Deploying this template will create one or more Azure resources or Marketplace offerings. You acknowledge that you are responsible for reviewing the applicable pricing and legal terms associated with all resources and offerings deployed as part of this template. Prices and associated legal terms for any Marketplace offerings can be found in the [Azure Marketplace](#); both

☐ I agree to the terms and conditions stated above

☐ Pin to dashboard

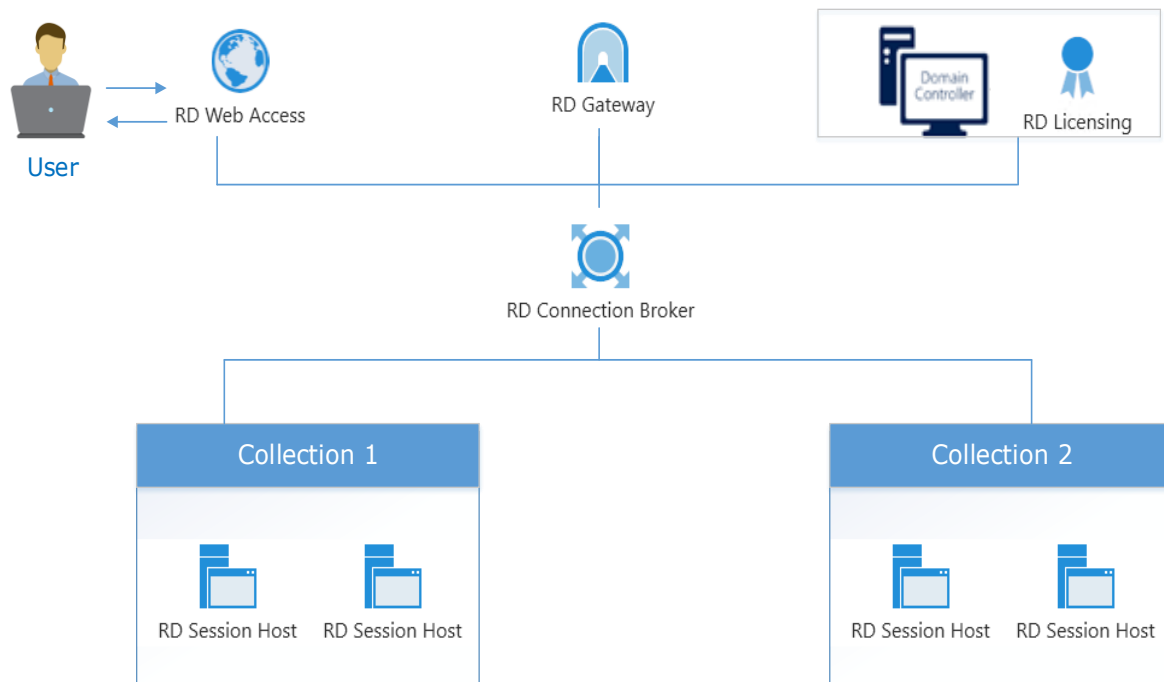
[Purchase](#)

Manual RDS Setup on Azure

Overview

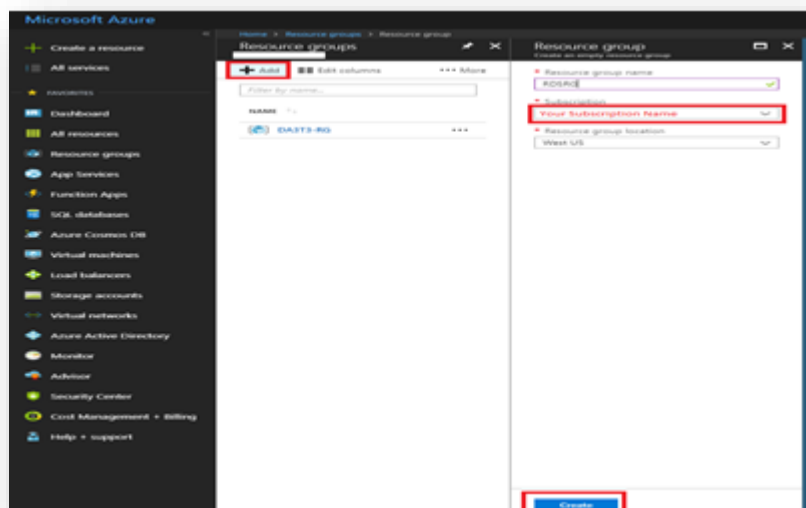
This section documents how to setup a dedicated RDS system per customer specifications. All RDS components including Users, Servers, and Remote Apps are connected to a single Domain Controller (DC). In this scenario, the access to RD Remote Apps will be mapped to a set of users by creating different Remote Desktop Session Collections.

Architecture

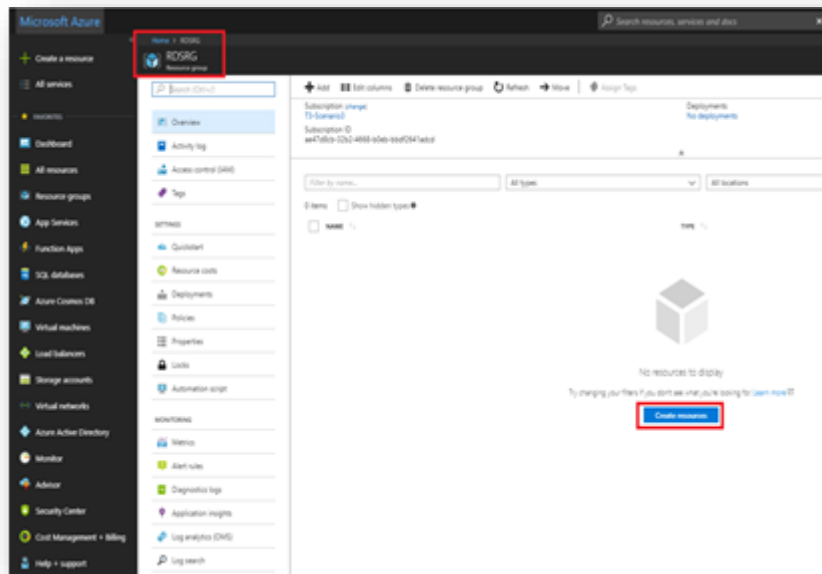


Deployment Steps

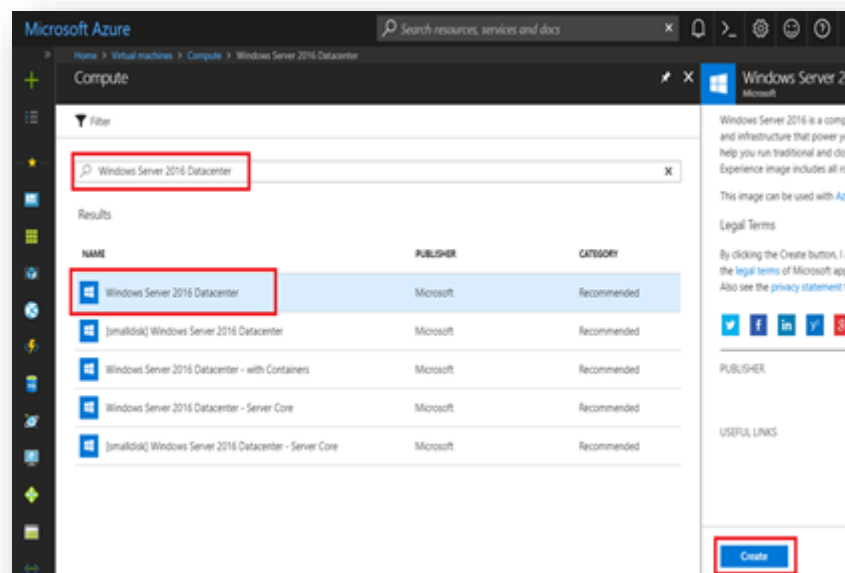
1. On the **Azure portal**, open **Resource Group** > then click **Add**



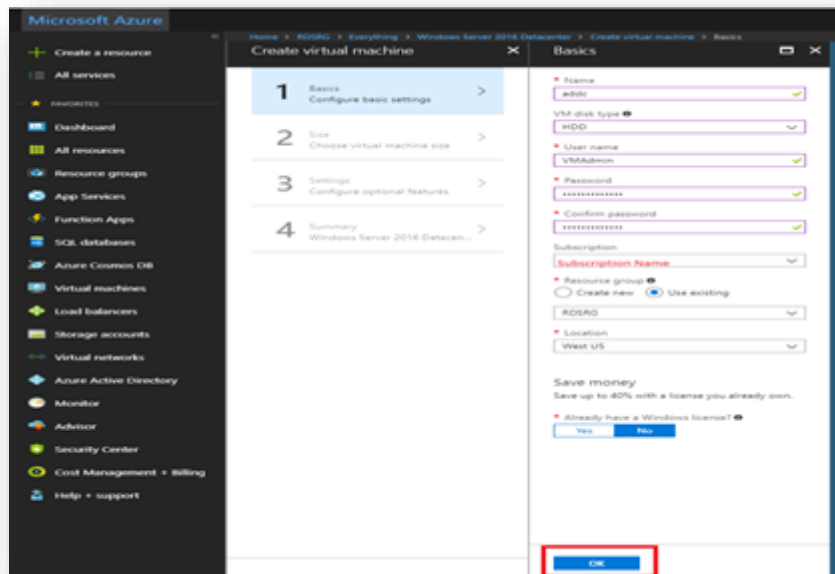
2. Click Create resources



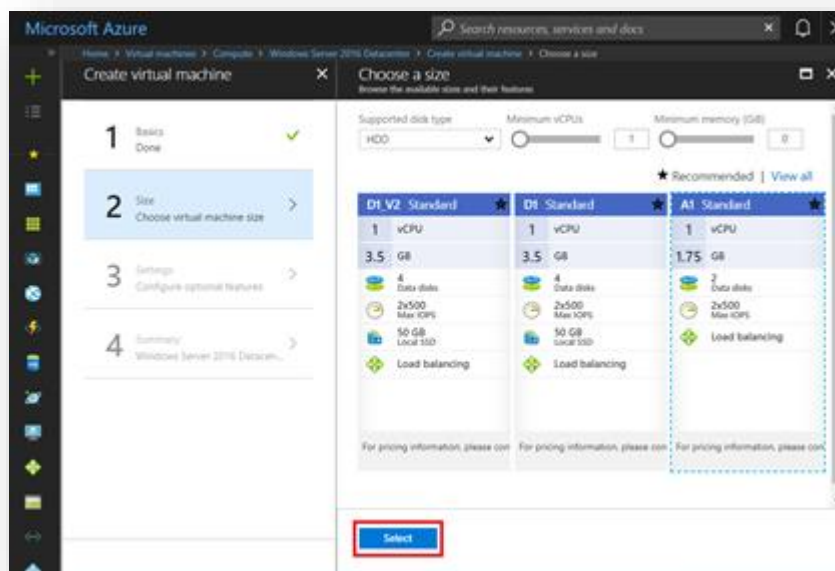
3. To add the resource (virtual machine) in the created Resource Group, search "Windows Server 2016 Datacenter", and then click **Create**



4. Specify "advn" as the VM name plus other VM information, then click **OK**

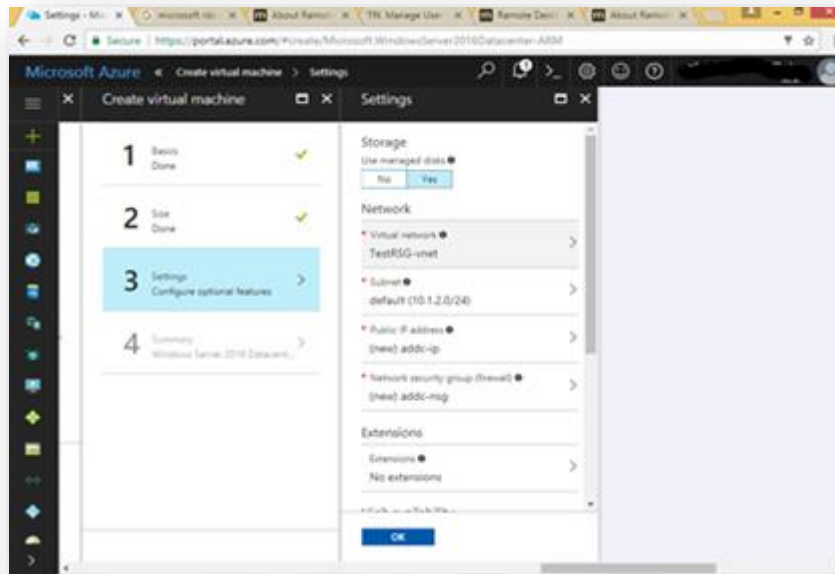


5. Specify the configuration size of the VM
6. Click **Select**

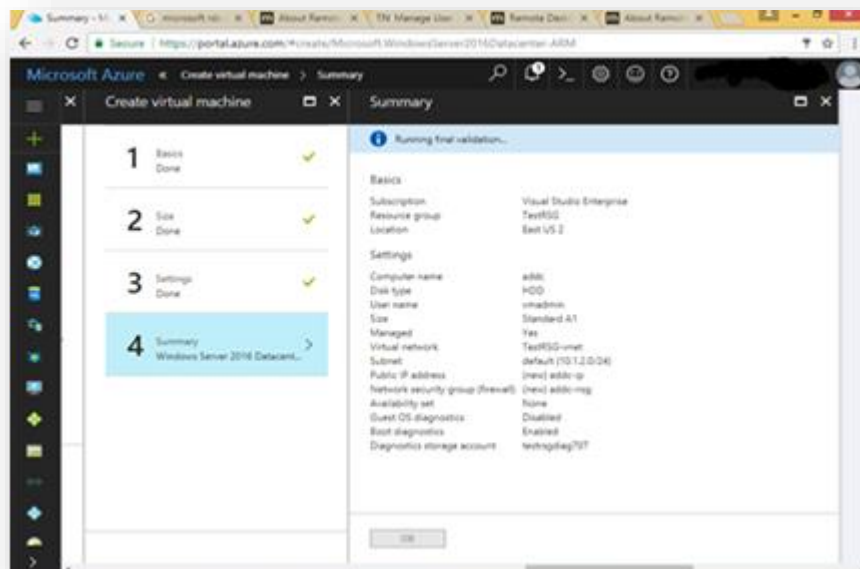


7. In the **Settings** pane, Virtual network, subnet, public IP addresses, etc., are created. To create an RDS, verify all VMs have the same **VNet**

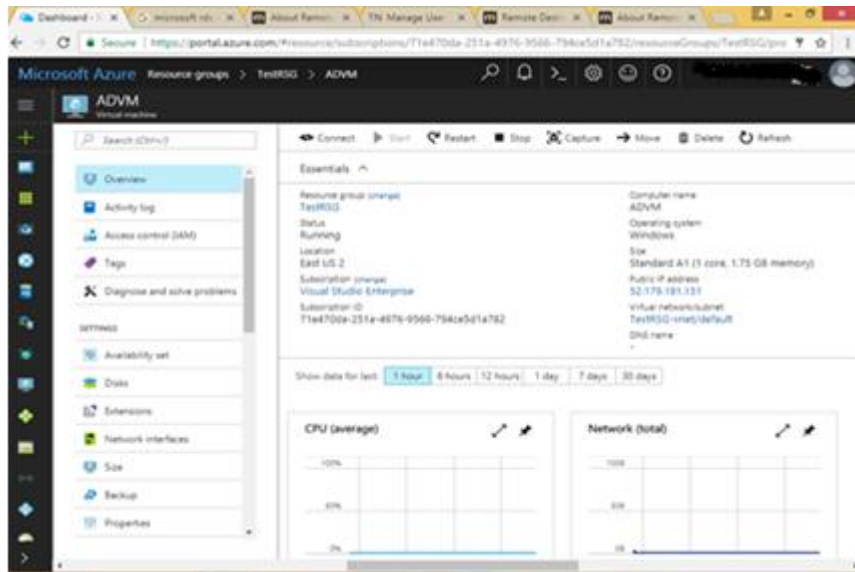
8. Click OK



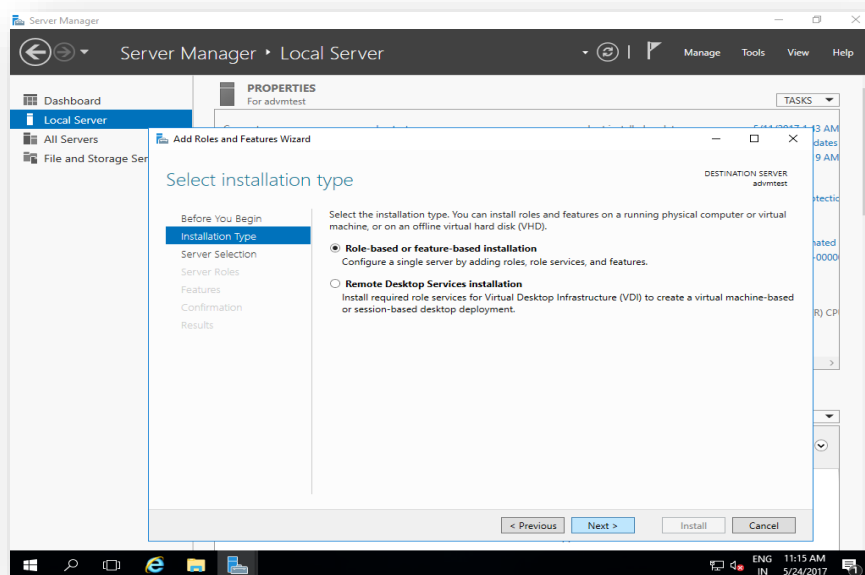
9. In the Summary pane, verify the details you specified, then click OK



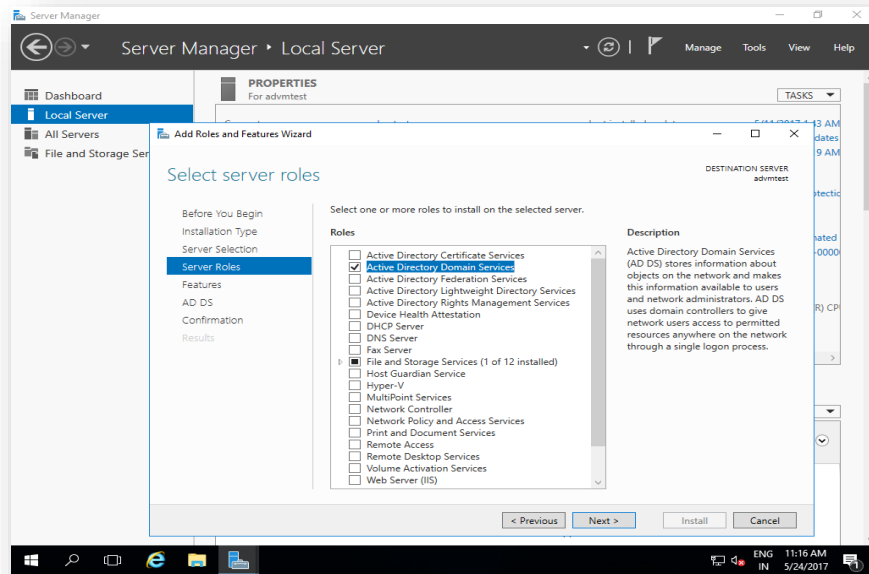
1. Open ADVM and click Connect



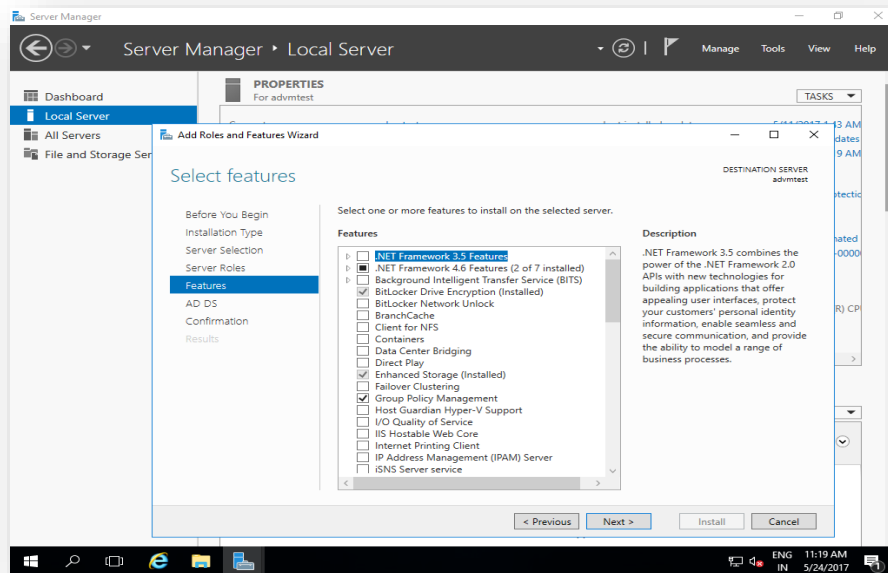
2. On Server Manager > Manage > Add Roles and Features Wizard > specify a Role-based or feature based installation
3. Click Next



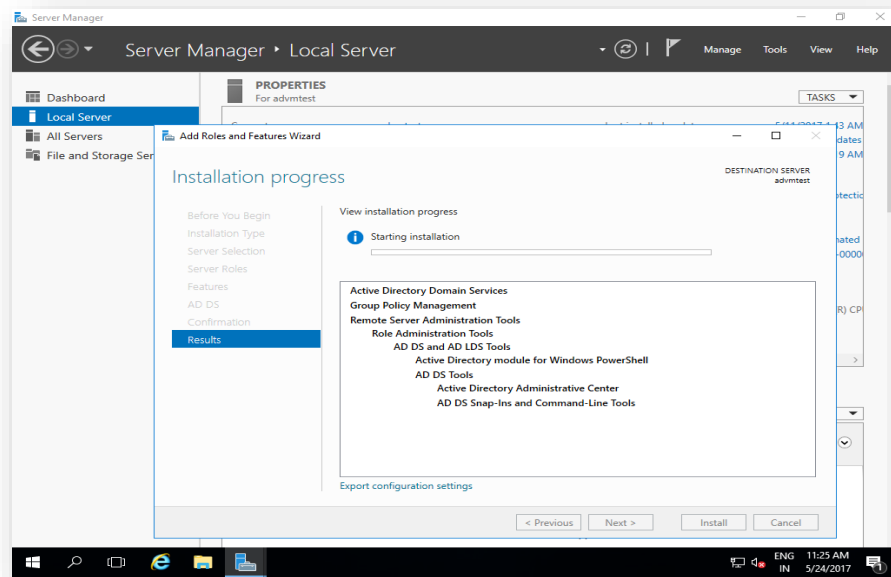
4. Click **Server Selection > Select server roles**
5. From the **Roles** section, specify **Active Directory Domain Services**
6. Click **Next**



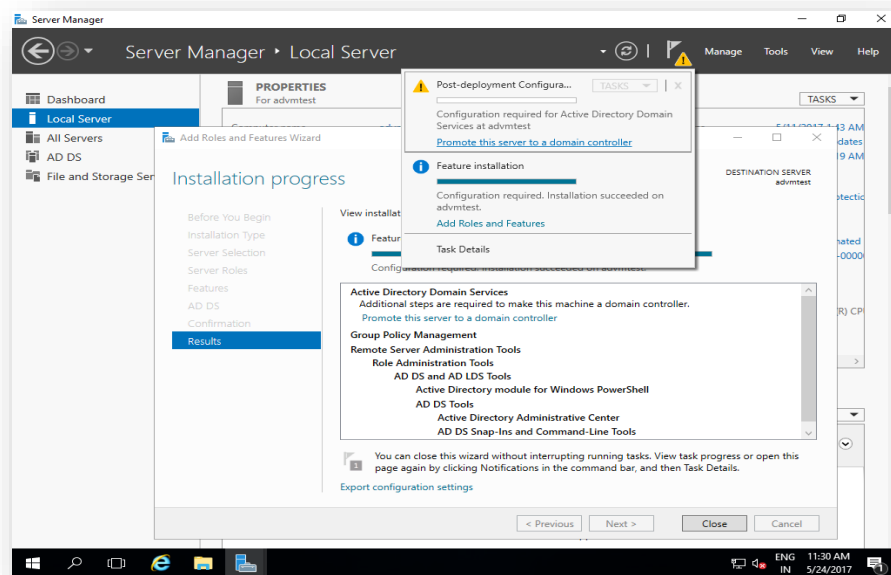
7. Click **Next**



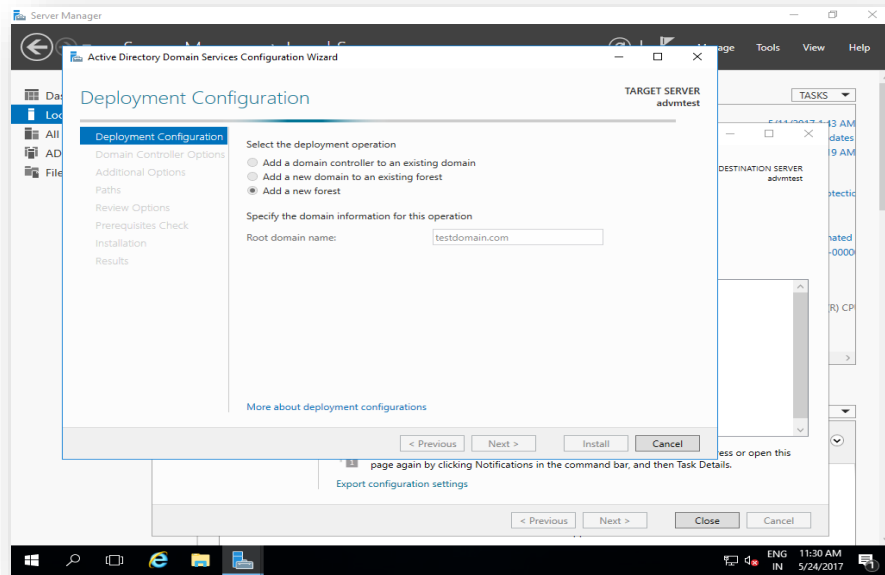
8. Click Install



9. After installation is complete, click Promote this server to a domain controller

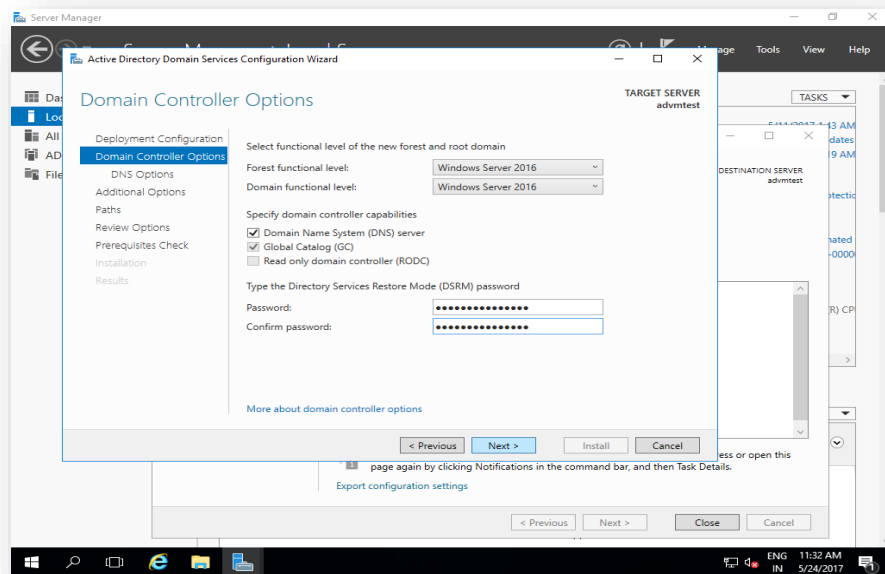


10. Click **Add a new forest**

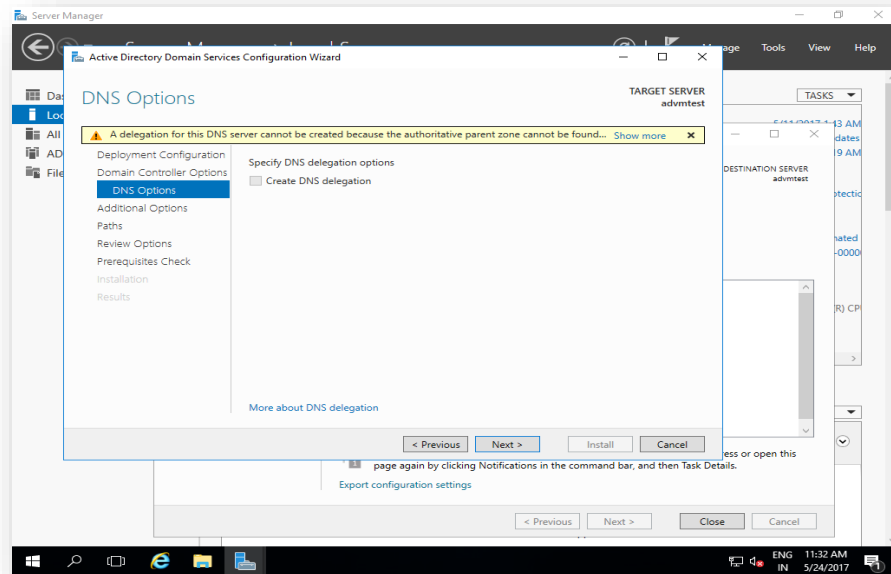


11. Specify and confirm the **Password**

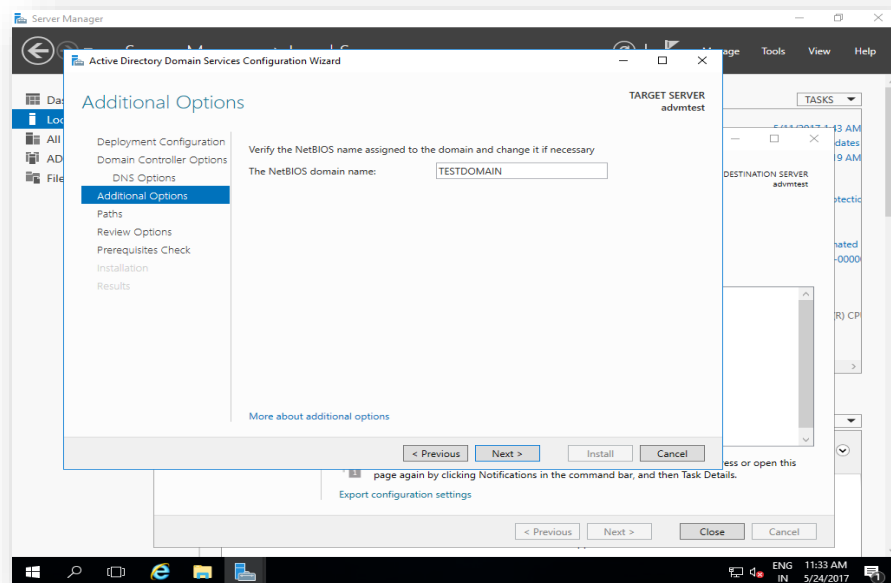
12. Click **Next**



13. Click **Next**



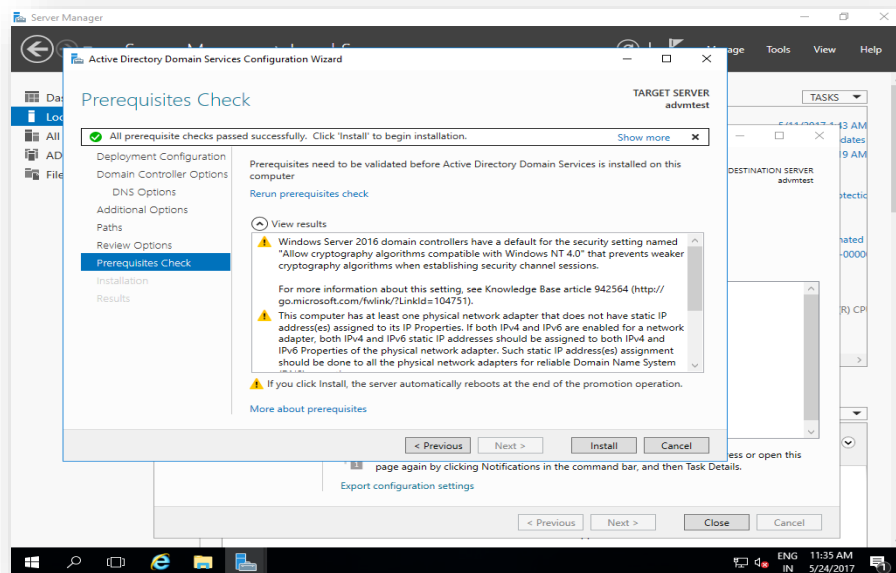
14. Click **Next**



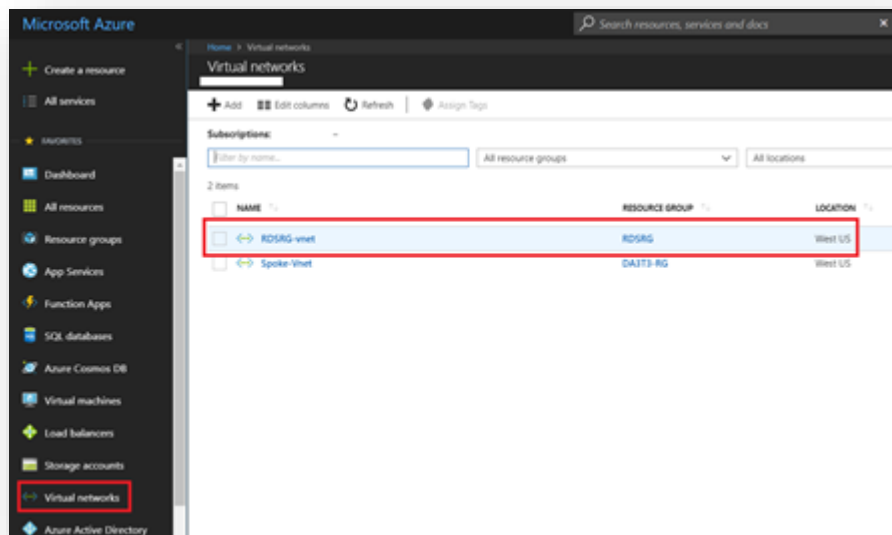
15. Click **Next > Install**

16. The server will restart.

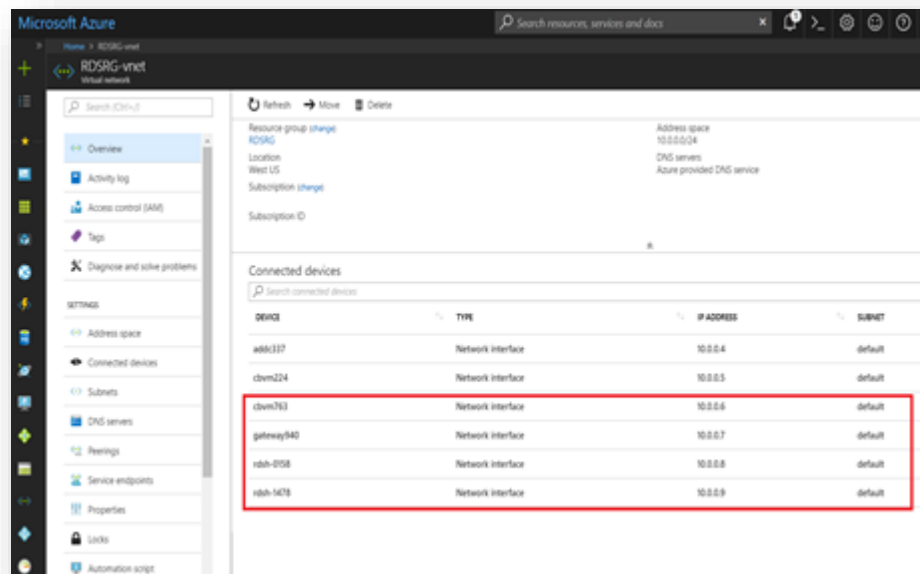
17. Create 4 new VMs (If you require a high availability set, configure VM with availability set configuration) with the name of "CBVM", "Gateway", "RDSH-0" and "RDSH-1" with OS of "Windows Server 2016 Datacenter"



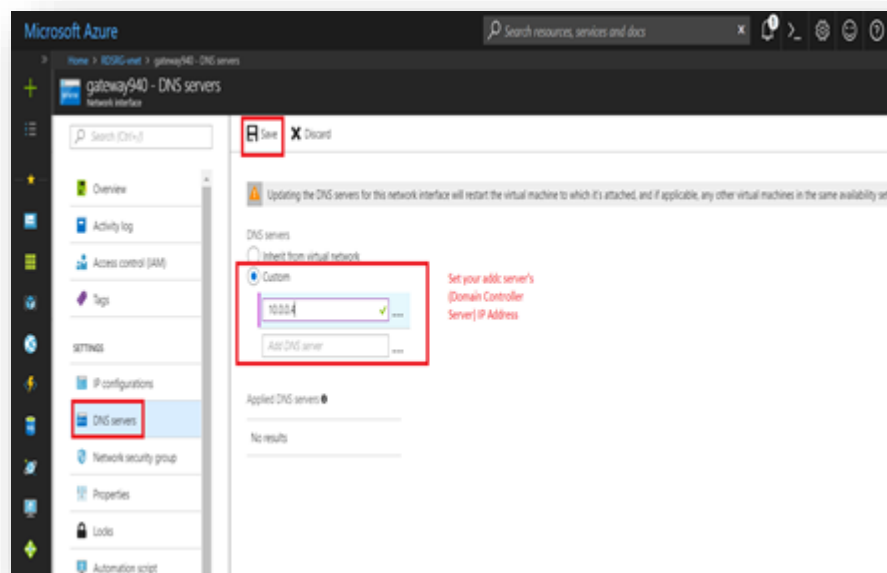
18. Click Virtual Networks
19. Click RDSRG-VNet



20. Click each of your VMs and Configure your DNS server IP Address (Domain Controller Server IP Address - addc337) as follows

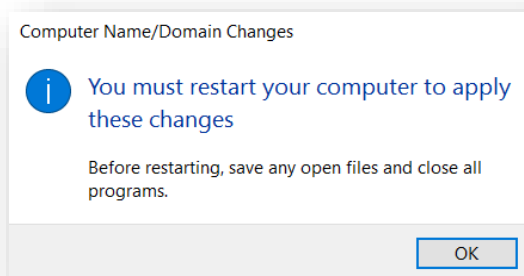
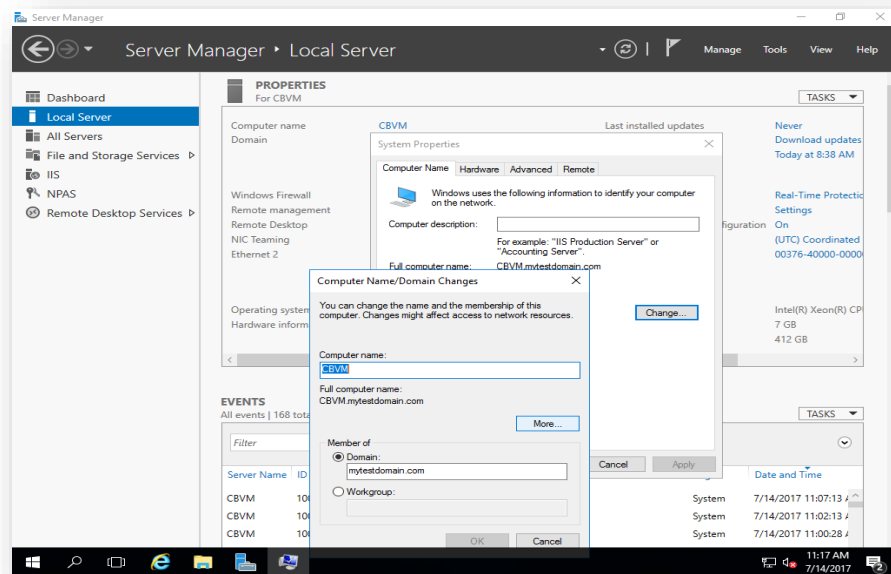


21. Set your Domain Controller Server's IP Address
22. Click **Save**

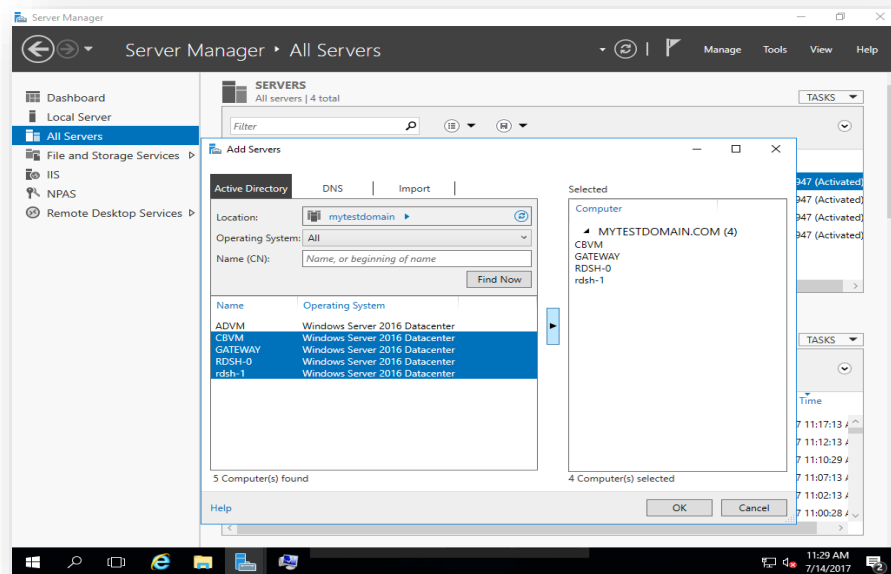


23. Change the Domain from **WORKGROUP** to the created domain (For all the VMs also – for example, CBVM, Gateway, and RDSH-0)
24. After clicking the **OK** button, Apply Domain Controller Server's Username and Password to apply the changes.

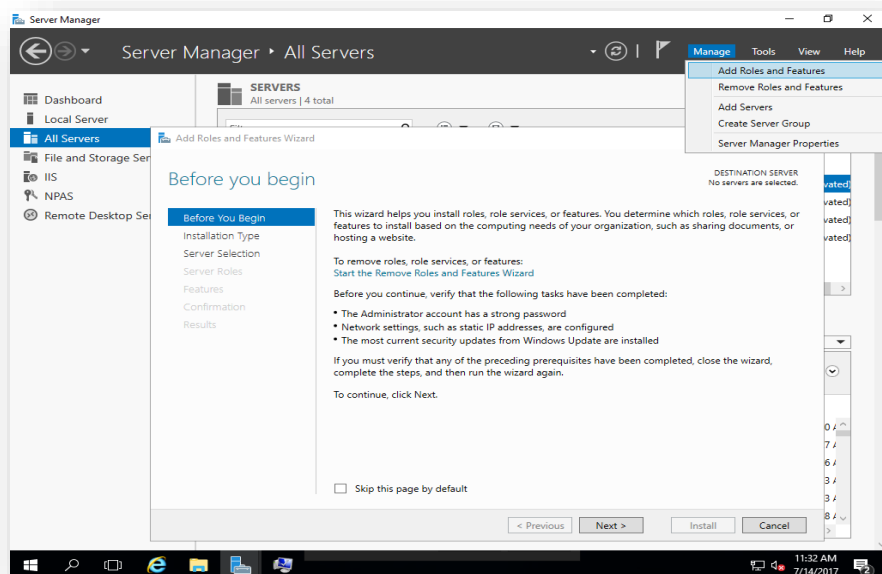
25. Restart the machine for changes to take effect



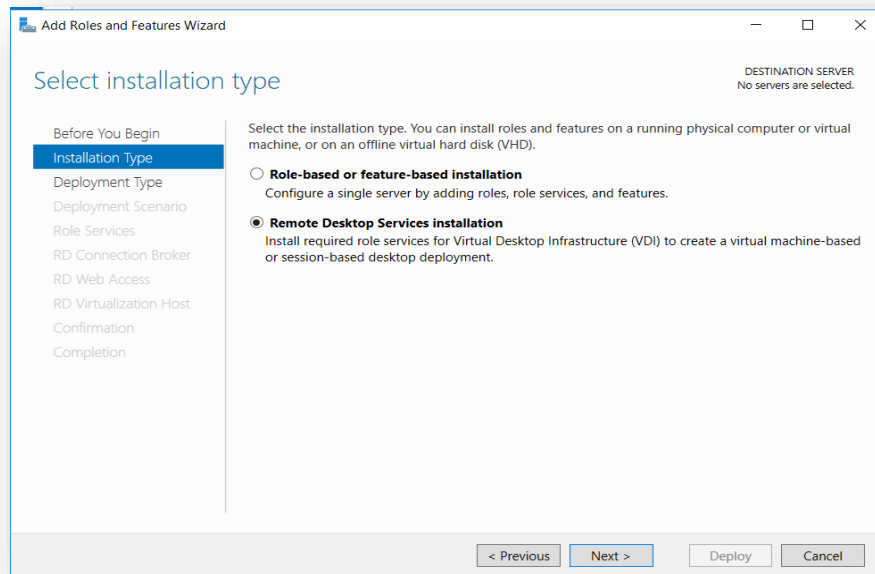
26. Connect to CBVM with AD Network Admin (mytestdomain\VMAdmin) and add all servers to the server pools



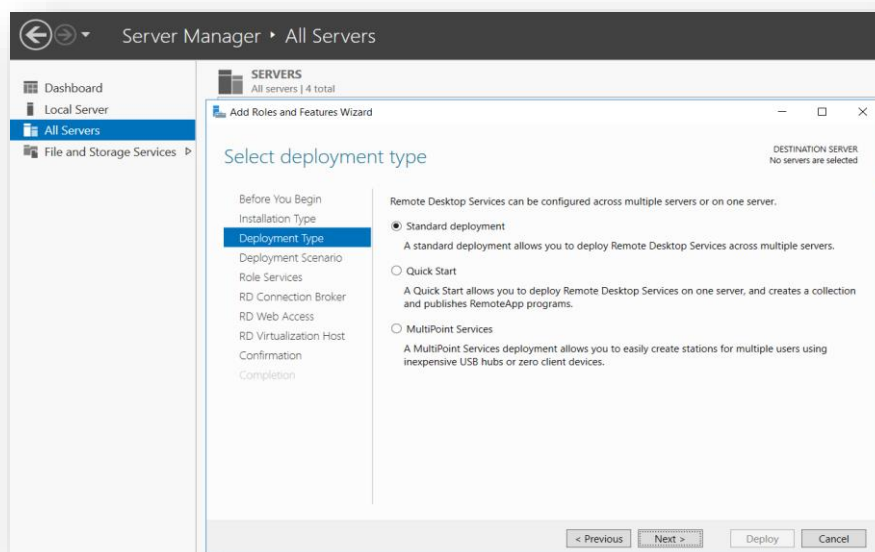
27. Click Server Manager > Manage > Add roles and features > Next > Remote Desktop Services Installation



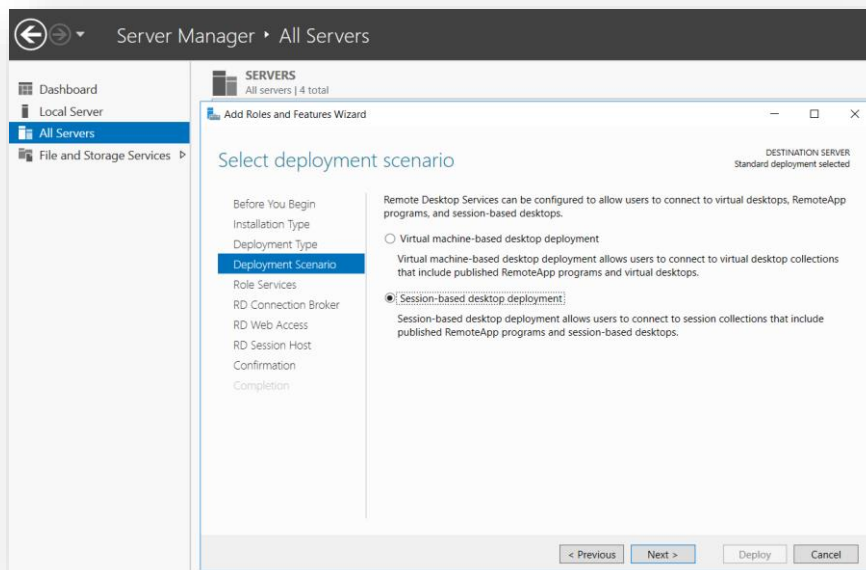
28. Specify Remote Desktop Services installation



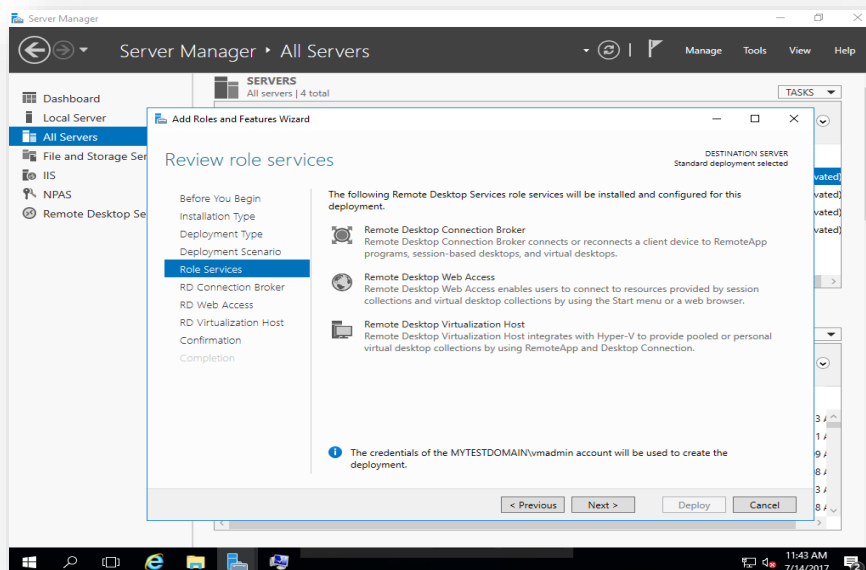
29. Specify Standard deployment



30. Specify Session-based desktop deployment



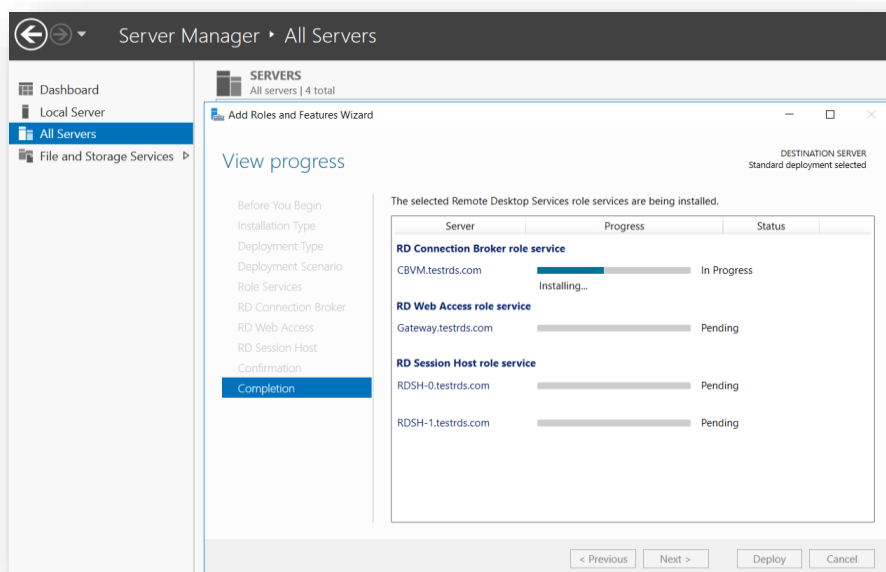
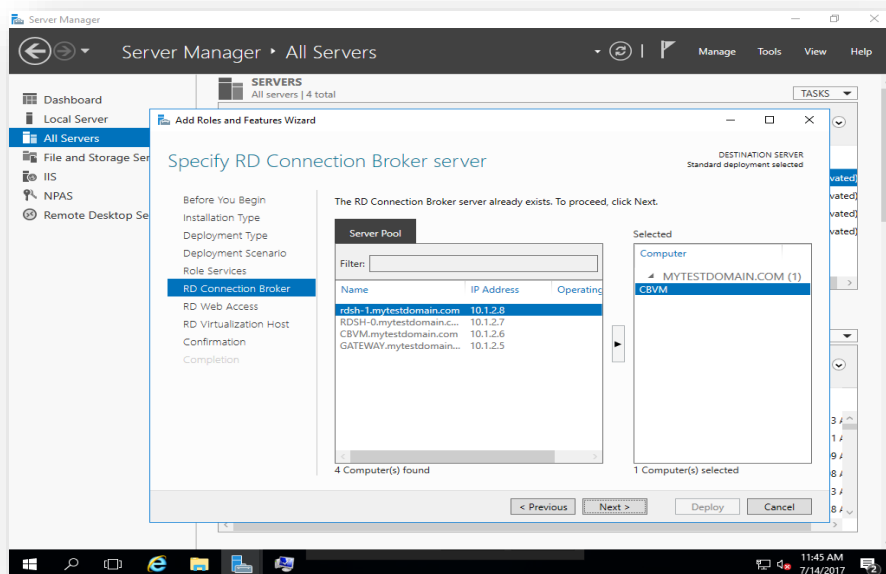
31. Click Next



32. Click RD Connection Broker > CBVM

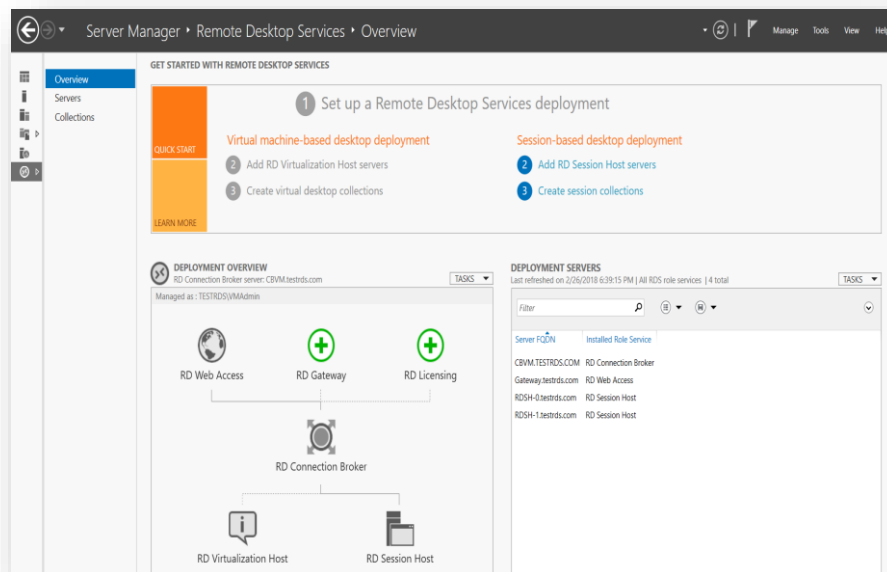
33. Click RD Web Access > Gateway VM

34. Click RD Session Host > Session host

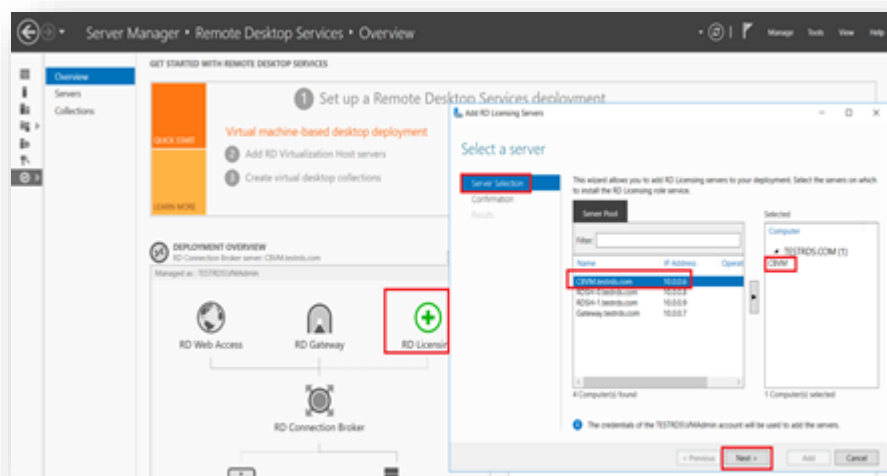


35. Click RD Gateway > Gateway VM

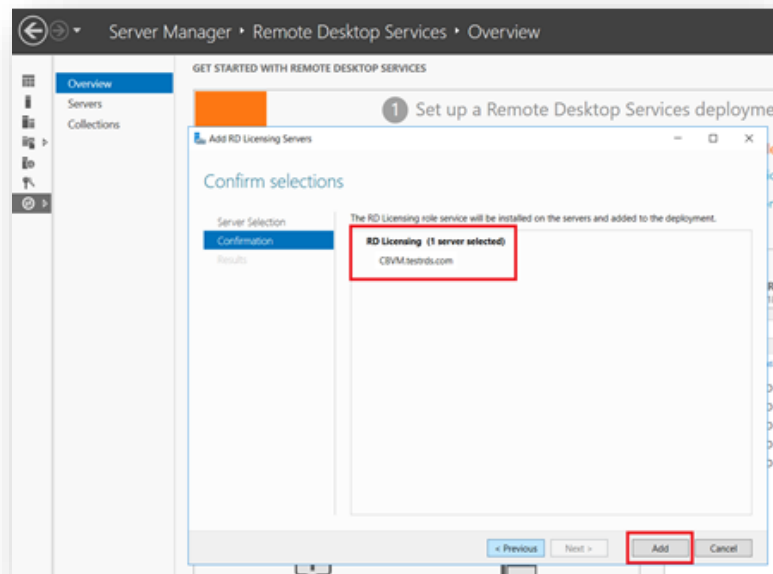
36. Click RD Licensing > CBVM



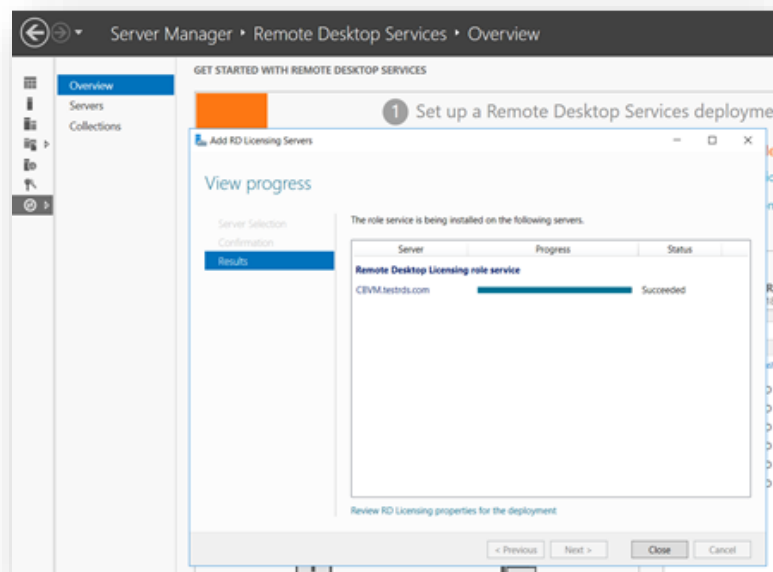
37. MAP CBVM to RD Licensing



38. Click **Add**

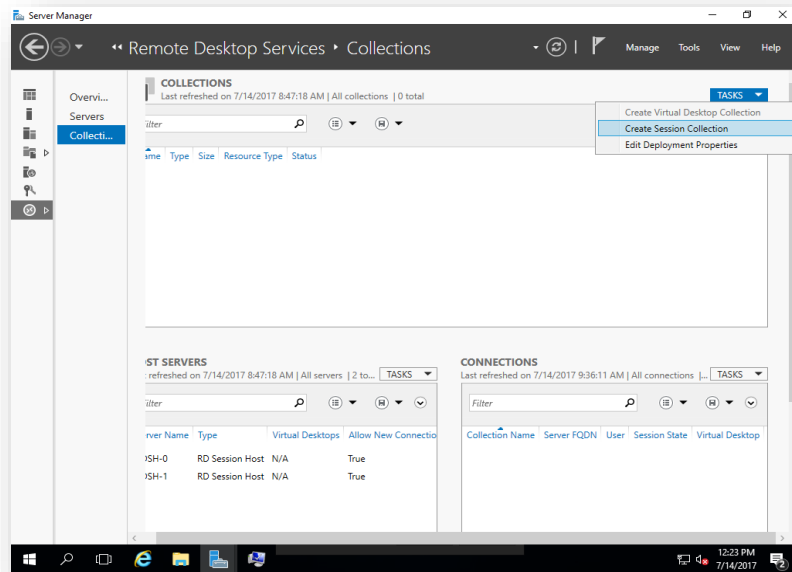


39. Click **Close**

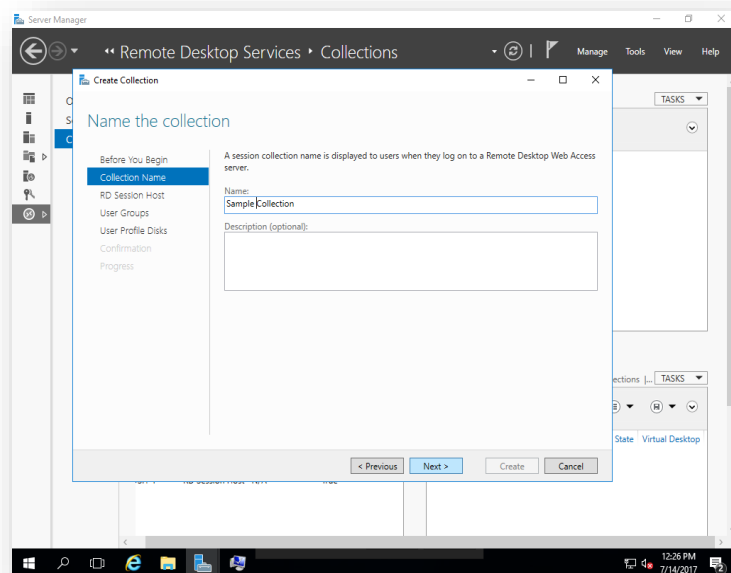


Creating a Collection

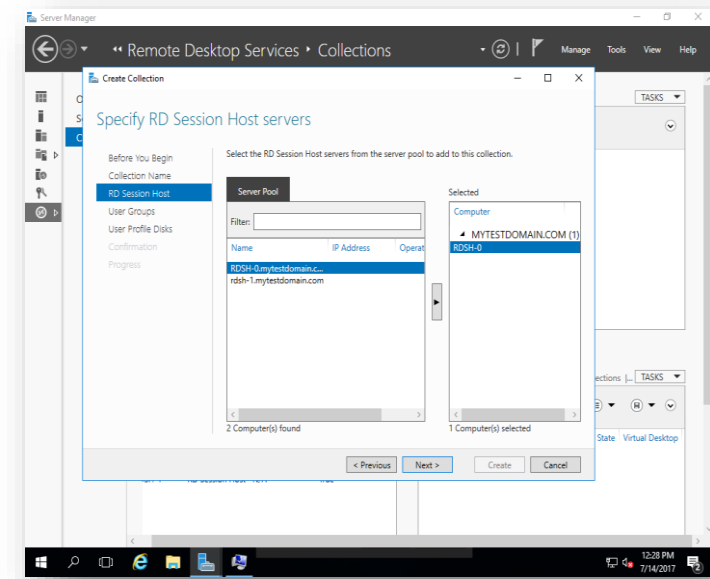
1. In CBVM Server Manager, click **Remote Desktop Services > Create Session Collection**



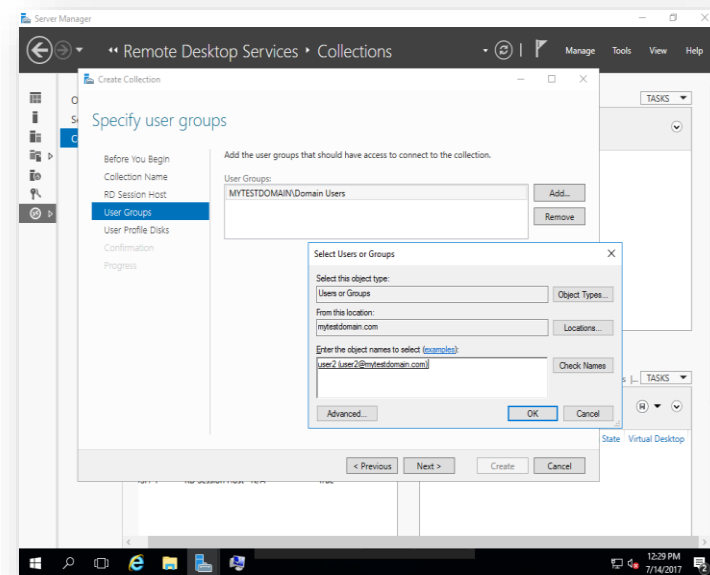
2. On the **Before You Begin** page, click **Next**
3. On the **Name the collection** page, specify a **Name** for the collection
4. Click **Next**



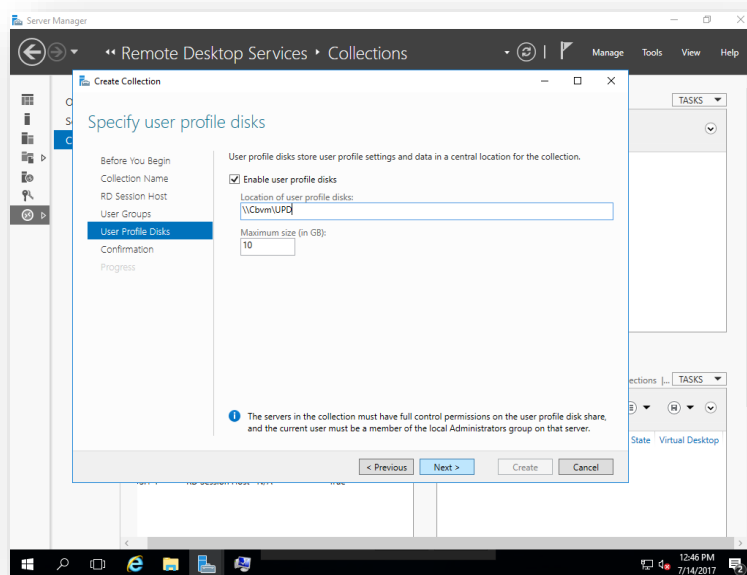
5. Specify the RD Session Host VM
6. Click **Next**



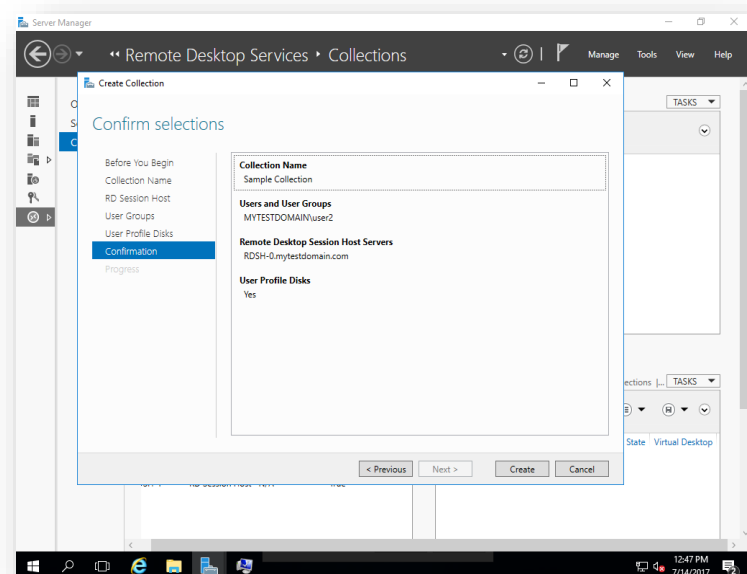
7. Add Users and User Groups to the Collection
8. Click **OK**



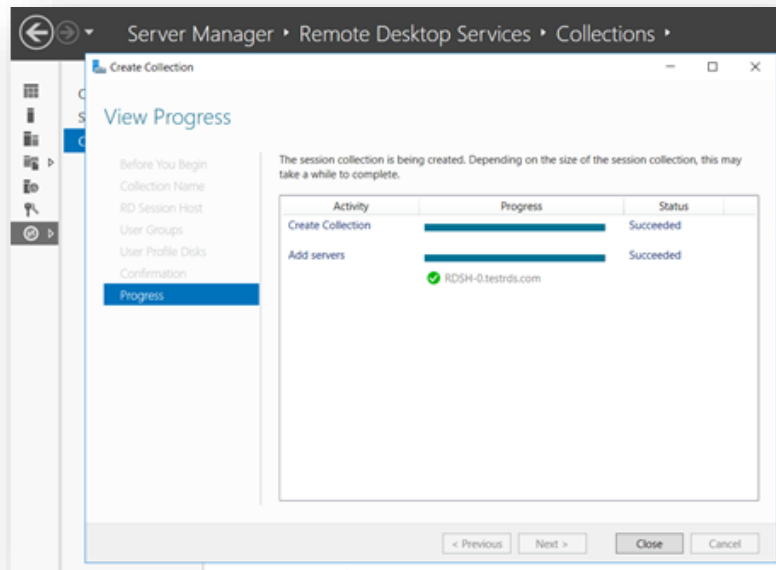
9. Create a UPD folder on the CBVM system and share the folder with Users. Specify the UPD path into the location of the User Profile Disk
10. Click **Next**



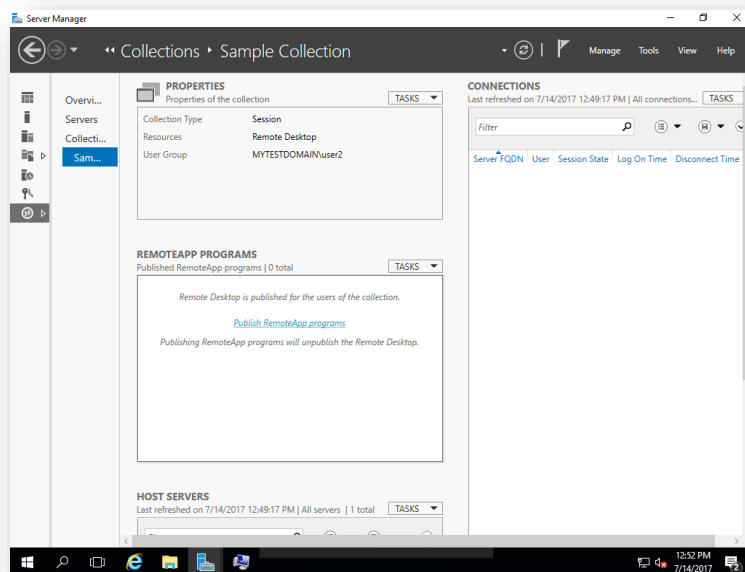
11. Click Create



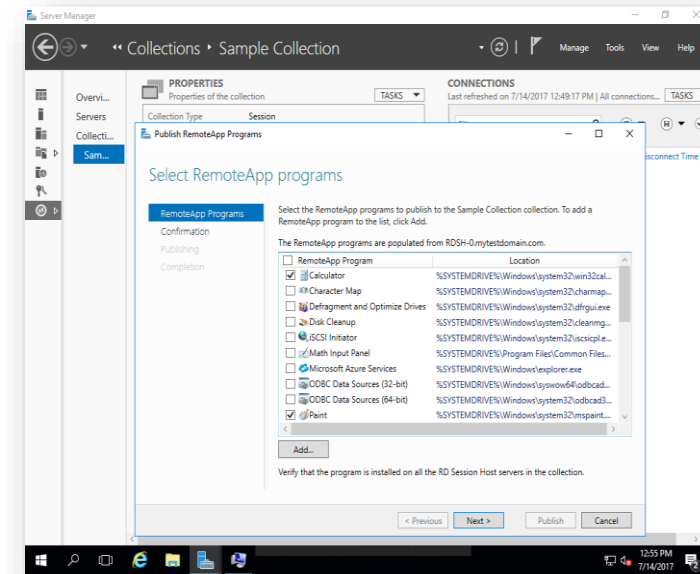
12. Click Close



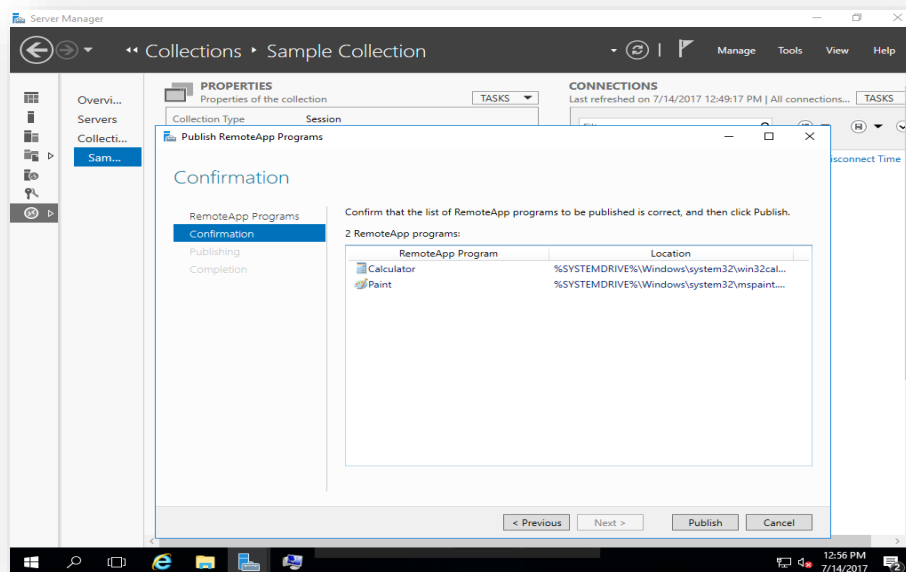
13. Publish the Remote Apps



14. Specify the Remote apps to publish, then click **Next**



15. Click **Publish** > **Close**



References

<https://azure.microsoft.com/en-in/resources/templates/rds-deployment/>

[https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2008-R2-and-2008/cc816590\(v=ws.10\)](https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2008-R2-and-2008/cc816590(v=ws.10))