Microsoft

Step-by-step guide for High Availability Setup

Connection Broker

Prepared for

Service Providers

Prepared by

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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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Introduction

Remote Desktop Connection Broker is the central piece of the RDS deployment. It is responsible for directing clients to an available RD Session Host and reconnecting existing sessions. It manages all session collections and published Remote Apps, and it distributes the RDS configuration among the farm members. However, having a single RD Connection Broker server creates a single point of failure. Back in 2008 R2, connection broker had a big disadvantage. We were able to configure High Availability but only in an active/passive configuration. A second server was used only when the first server failed.

Purpose

This document provides a step-by-step guide for High Availability Deployment of Connection Broker that can be included as part of a Remote Desktop Services (RDS) deployment.

Prerequisites

1. A VM (CB) created for Connection Broker and configured in an Availability Set in Azure.
2. The VM should be configured with the Connection Broker Role.
3. A second VM (CBHA) created in Azure and added to the same Availability Set as in Step 1.

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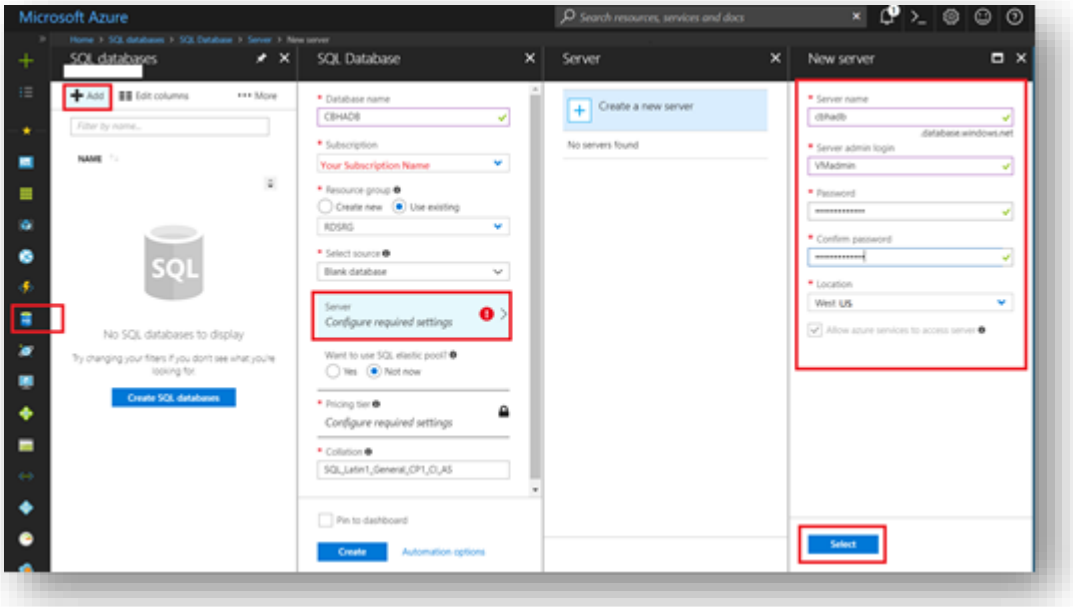
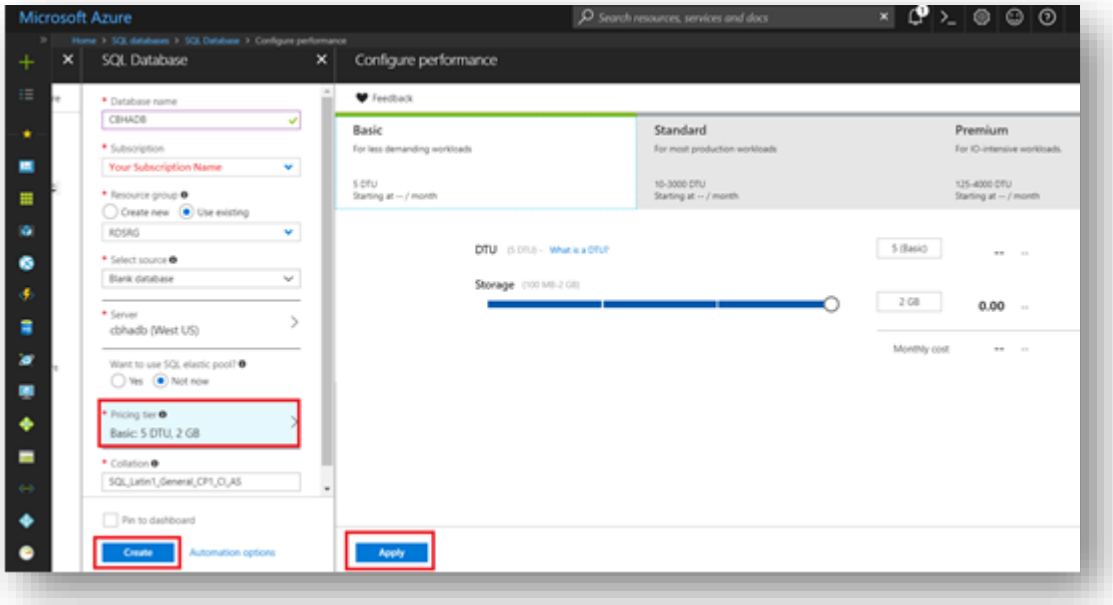
Deployment Steps

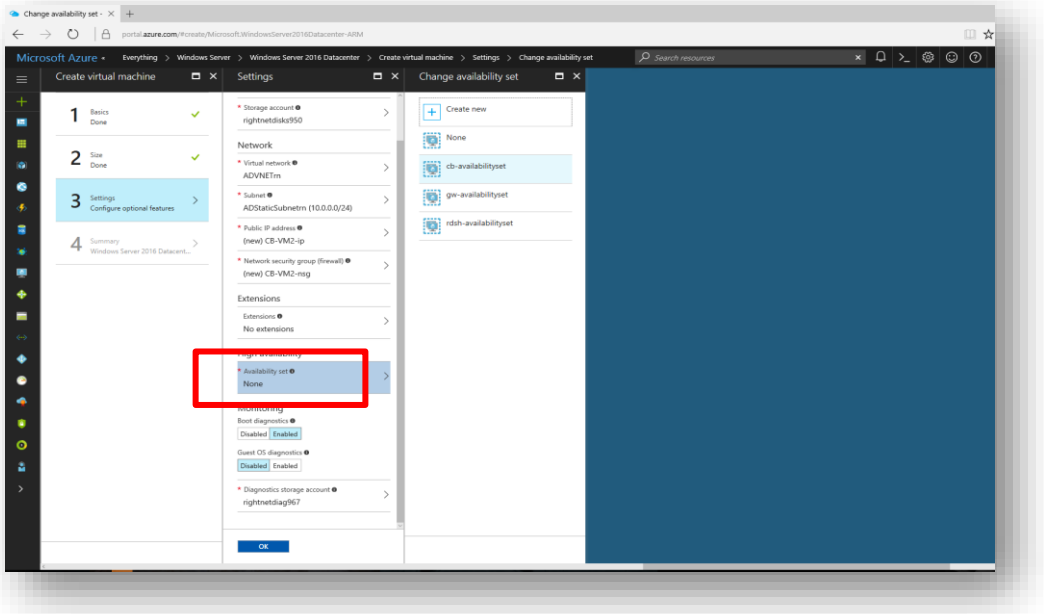
1. Create an Azure SQL Database



2. Select your pricing tier and create a database



3. Create a VM in Azure to Promote Connection Broker to High Availability



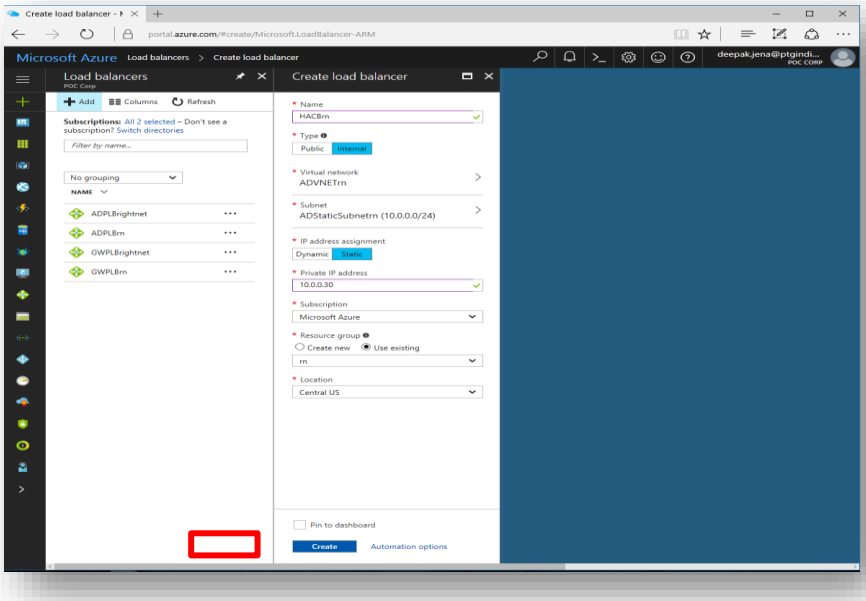
4. Configure Internal Load balancing in the Azure Portal

   In the **Azure portal**, search for **Load balancers**

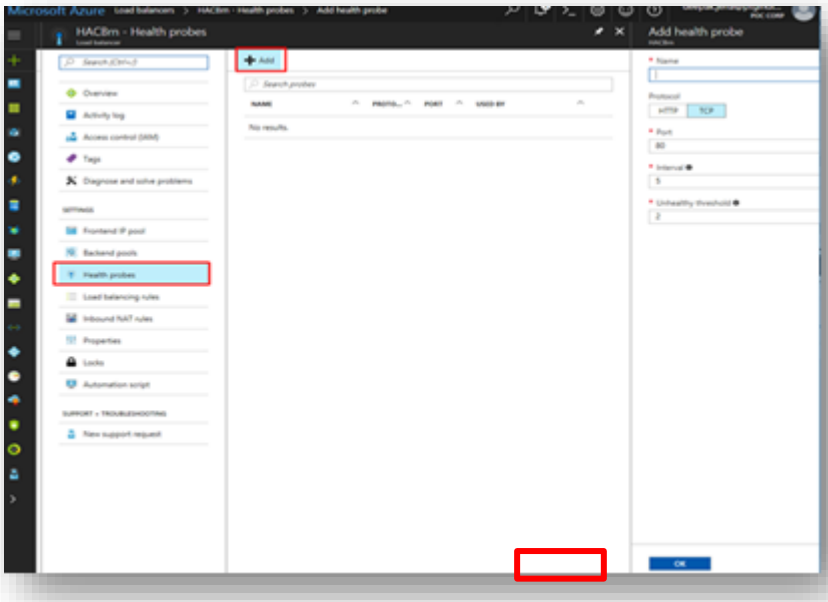
   Click on **Add** and specify details

   - Name
   - Type: as Internal
   - Virtual Network
   - Subnet
   - IP Address: as Static
   - Private IP
   - Subscription
   - Resource group
   - Location

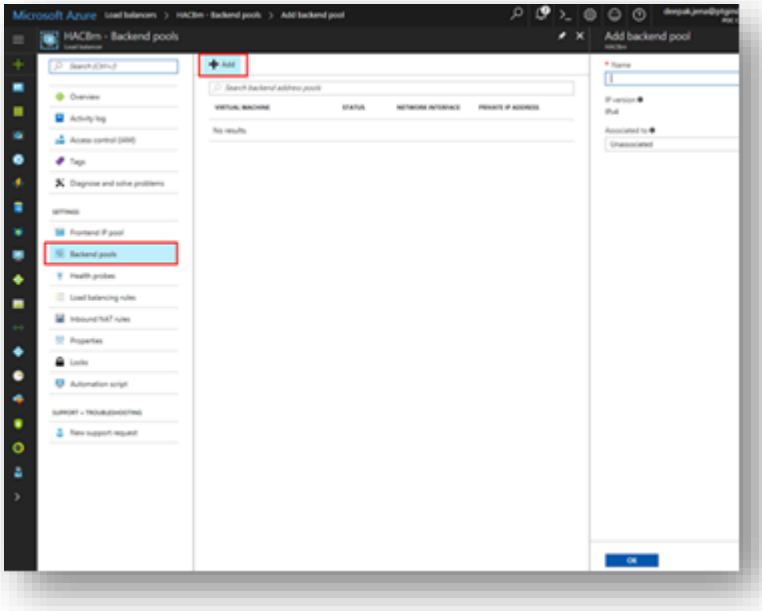
Click on **Create**



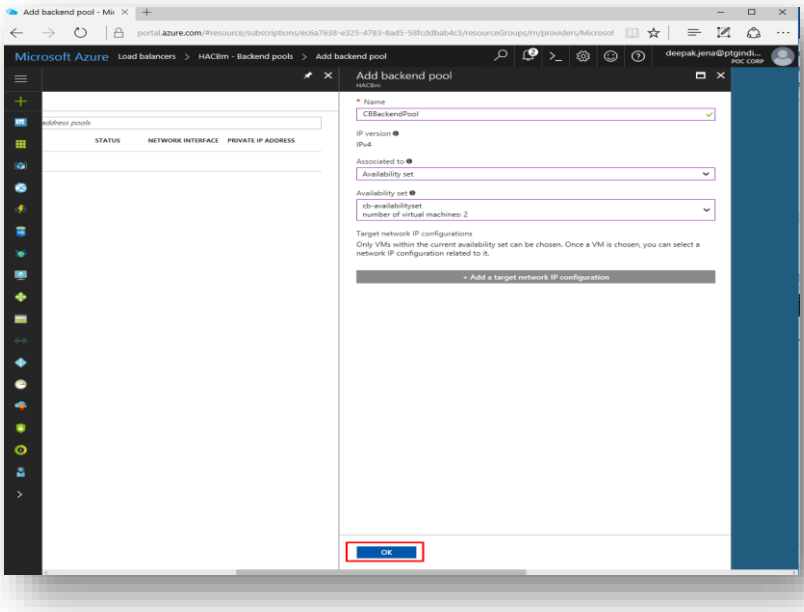
5. Once the Load Balancer is created, configure it as follows
    1. Health Probe
    2. Backend Pools
    3. Load Balancing rules
    1. Add **Health Probe**
        a. Click **Add** and specify the details
            - Name
            - Protocol: TCP
            - Port: 3389



2. Add **Backend Pool**
   - Click **Add** and specify details
     - Name
     - Specify **Associated to** as **Availability Set**



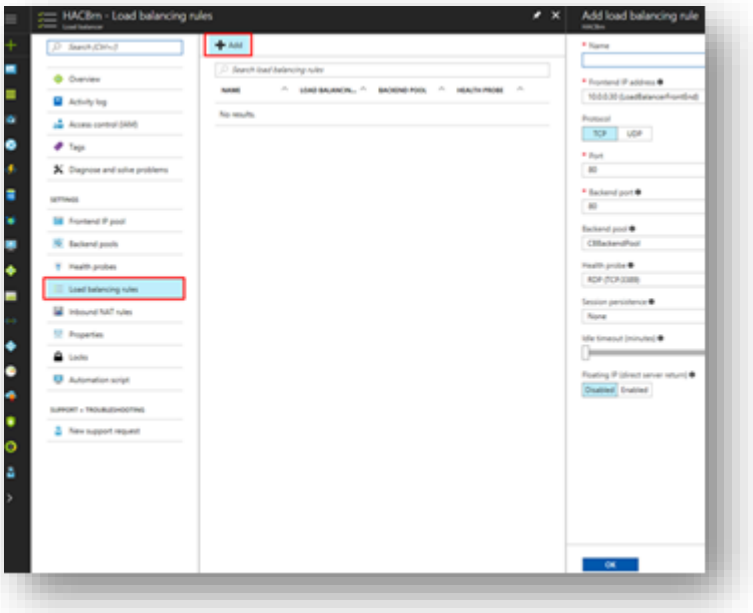
   - Specify **Availability set** and click **OK**



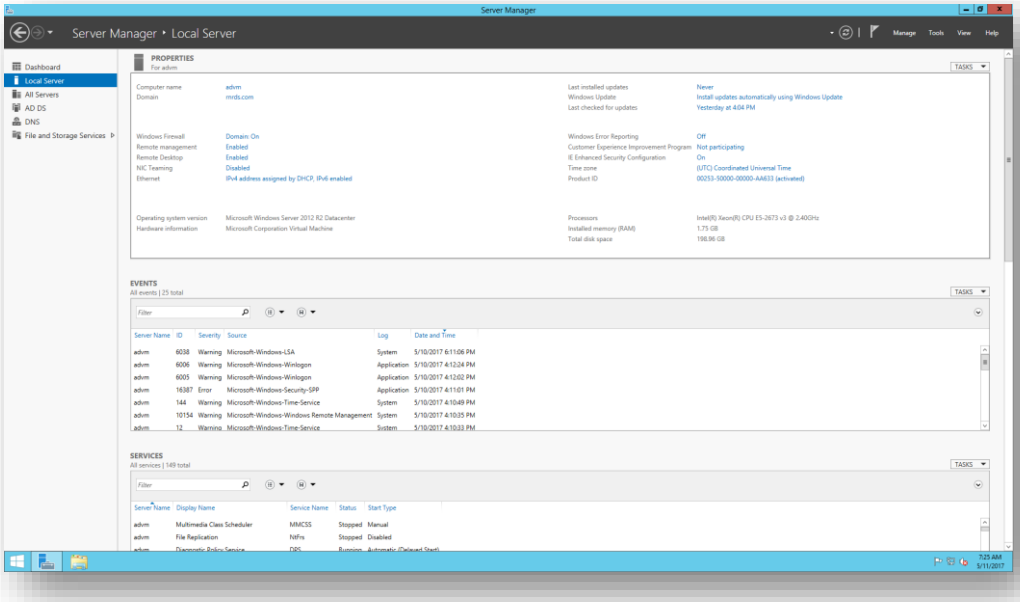
3. Add **Load Balancing rules**
   - Click **Add** and specify details
     - Name
     - Protocol as TCP

- Port as 3389
- Backend port as 3389
- Leave remaining as default

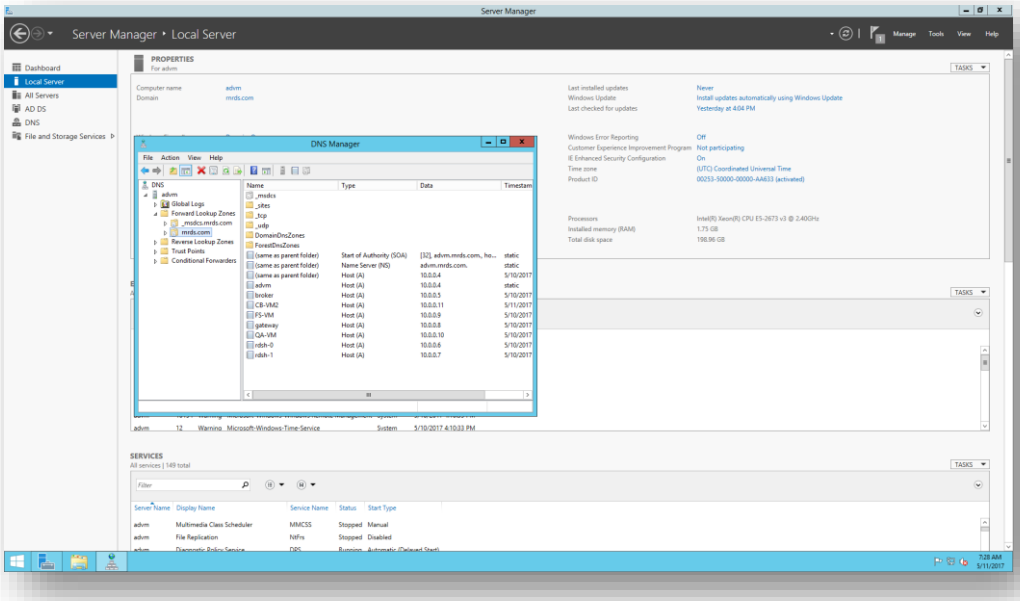
- Click **OK**



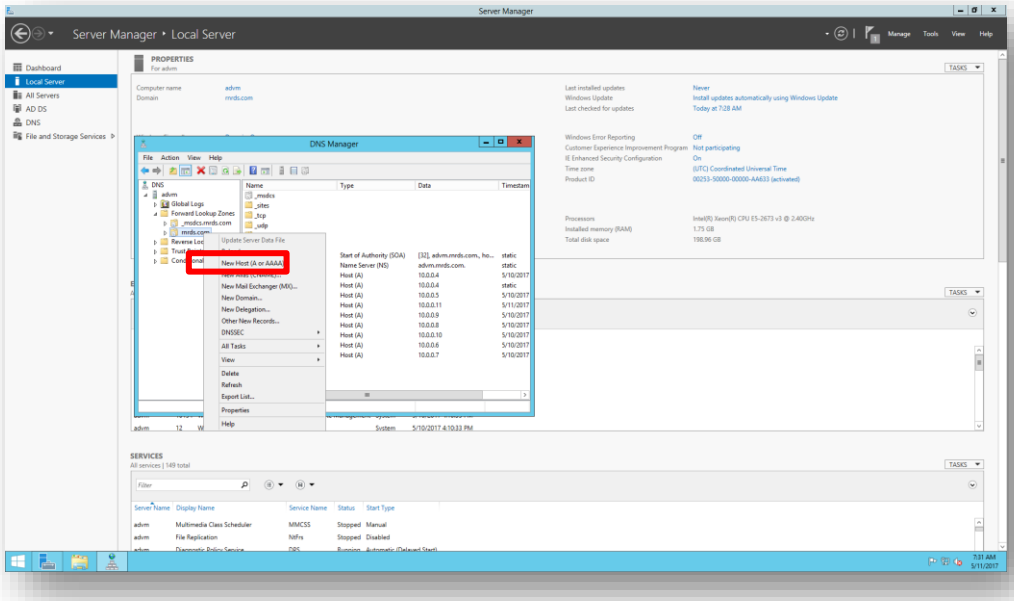
6. Login to ADVM
   - Configure **DNS entries** for **Connection Broker HA**



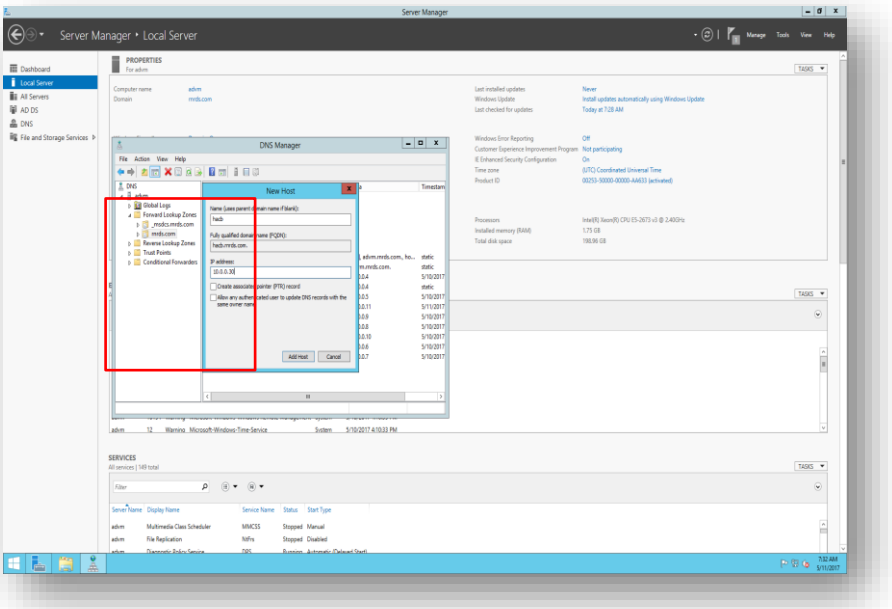
- Open **DNS Manager**



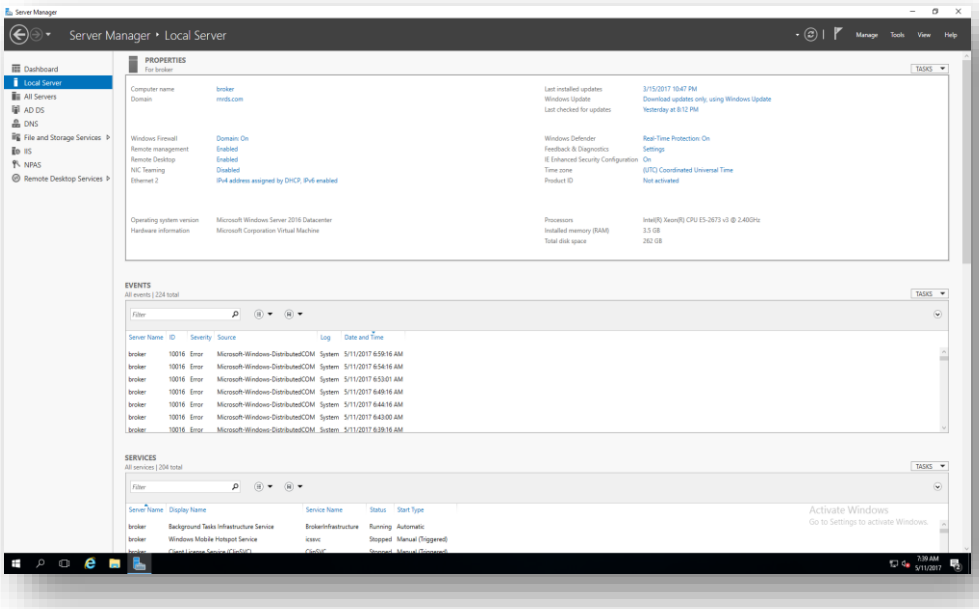
- Create a **New Host**



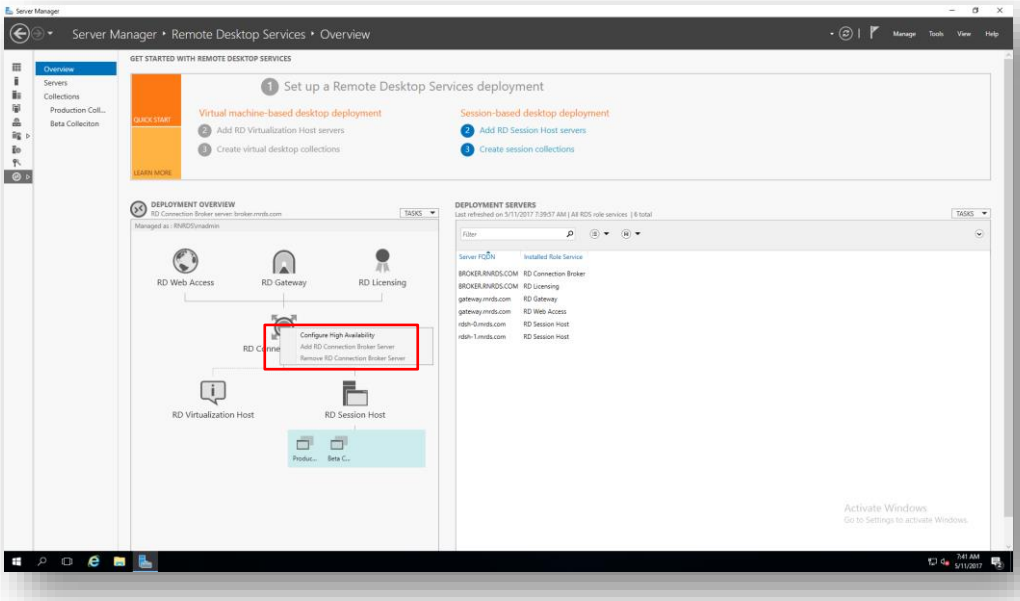
- Enter three host records with same the name for **Connection Broker HA servers** (CBVM and CBHAVM) and **Load balancer** with their respective IP addresses



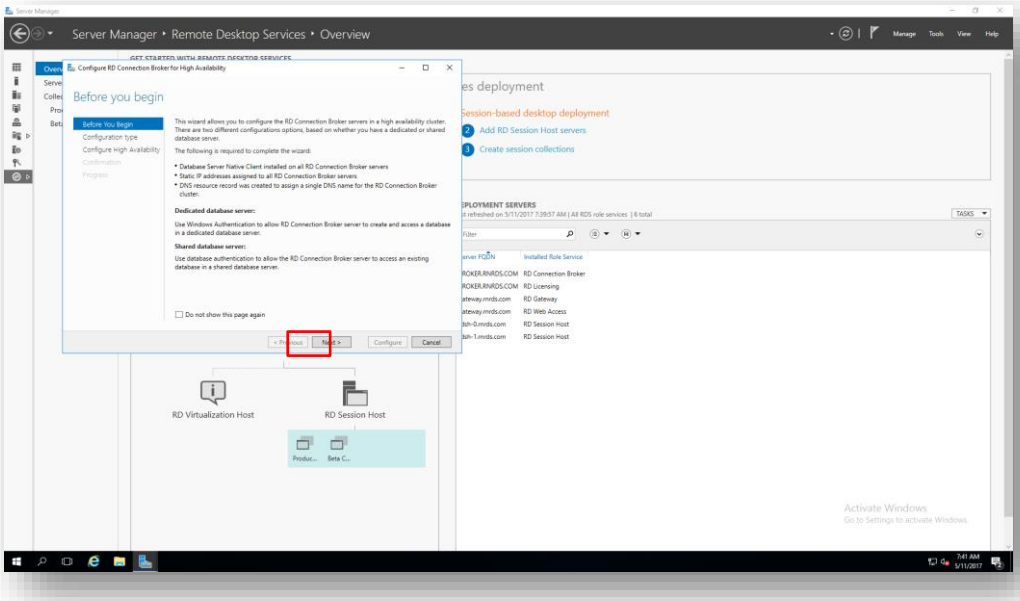
7. Login to **Connection Broker Server**
   - Add **CBHAVM** server to **Connection Broker (CBVM) Server Manager** to configure **High Availability**



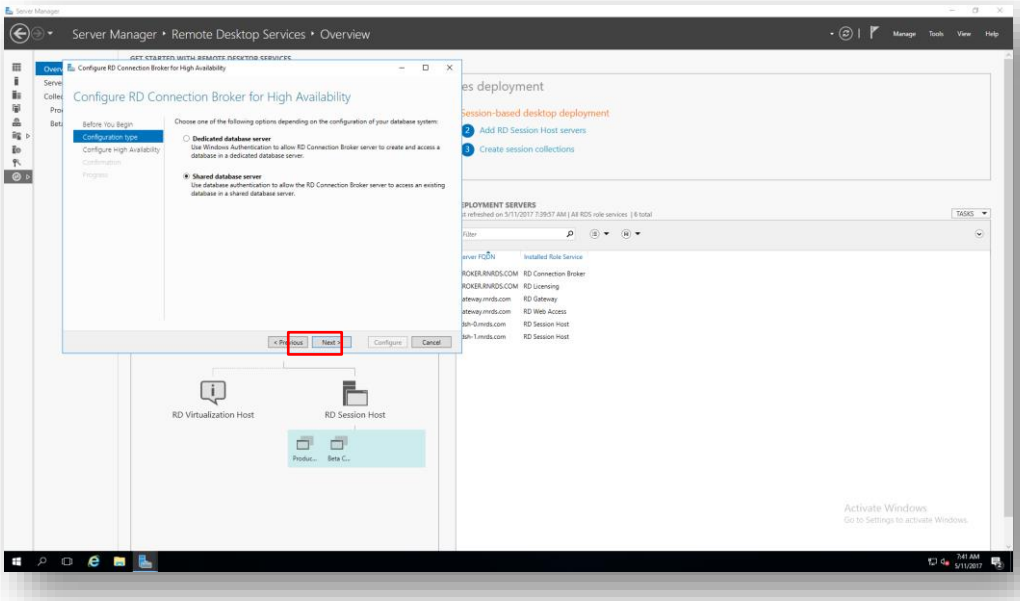
- Right-click **RD Connection Broker** and specify **Configure High Availability**



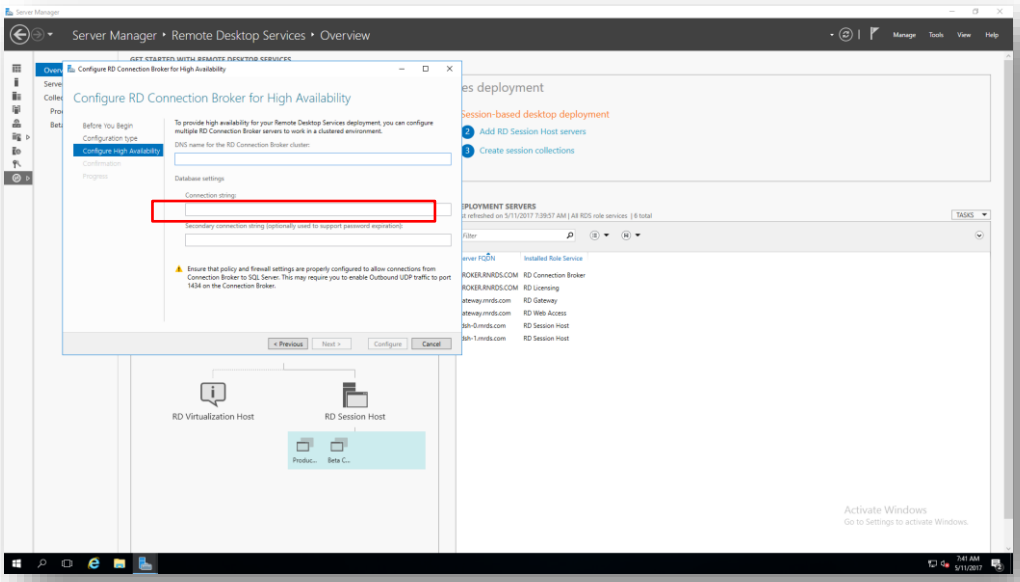
- Click **Next**



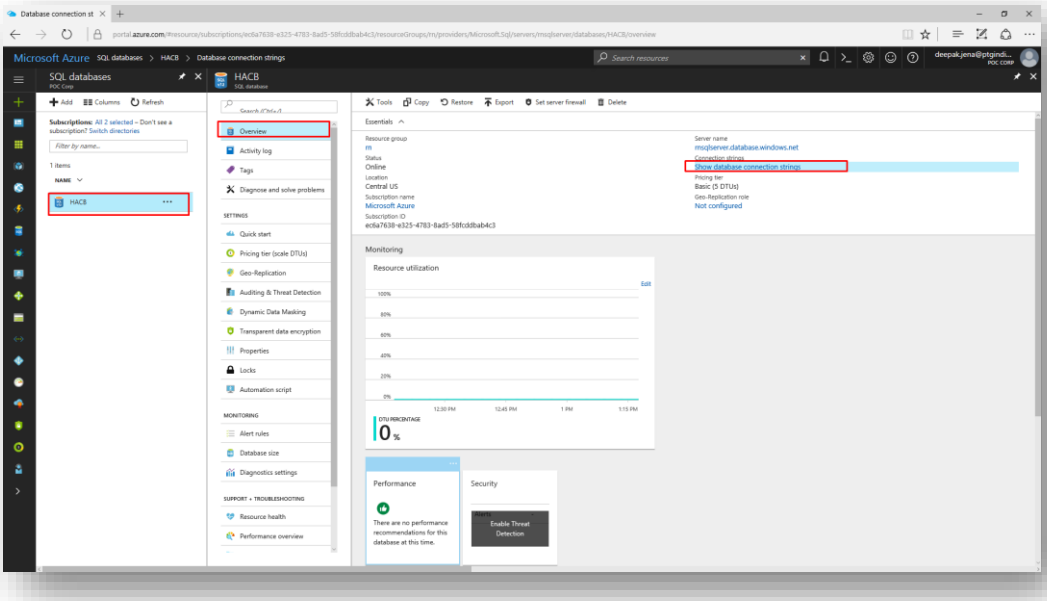
- Specify **Shared database server** to use **Azure SQL DB** and click **Next**



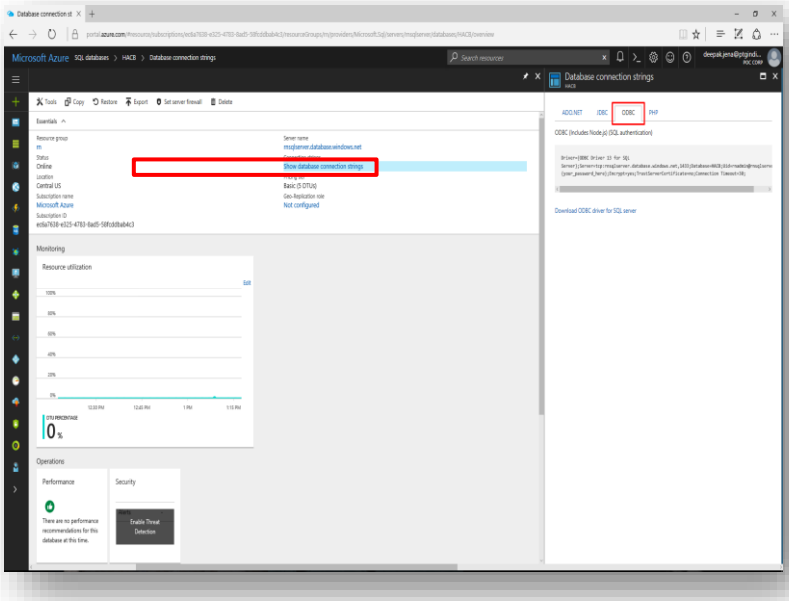
- Specify the **DNS Name** of CBHA FQDN as configured previously in the **DNS step**, and then provide the **SQL DB connection string**



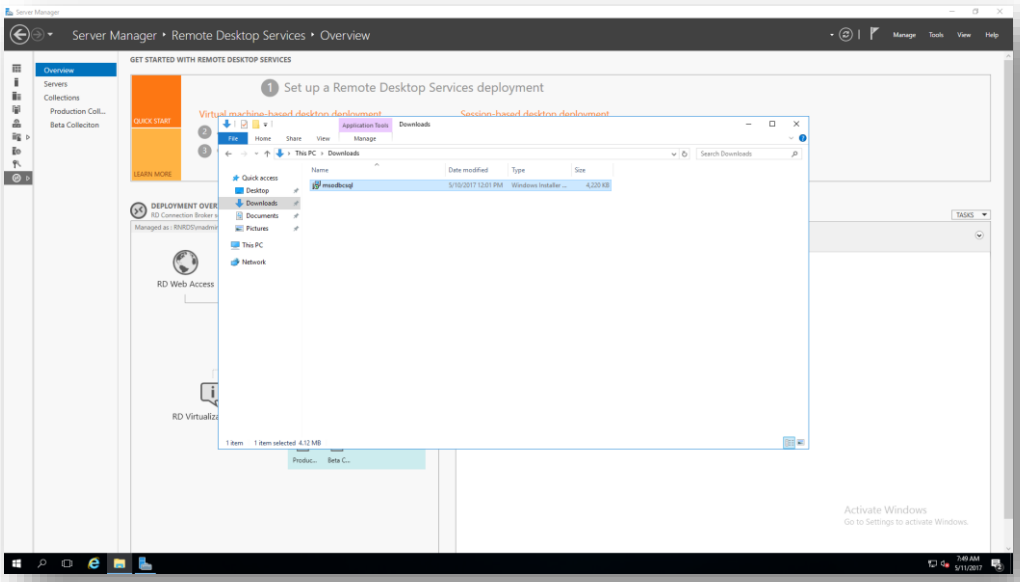
- From the **Azure portal**, locate the **SQL DB connection string**



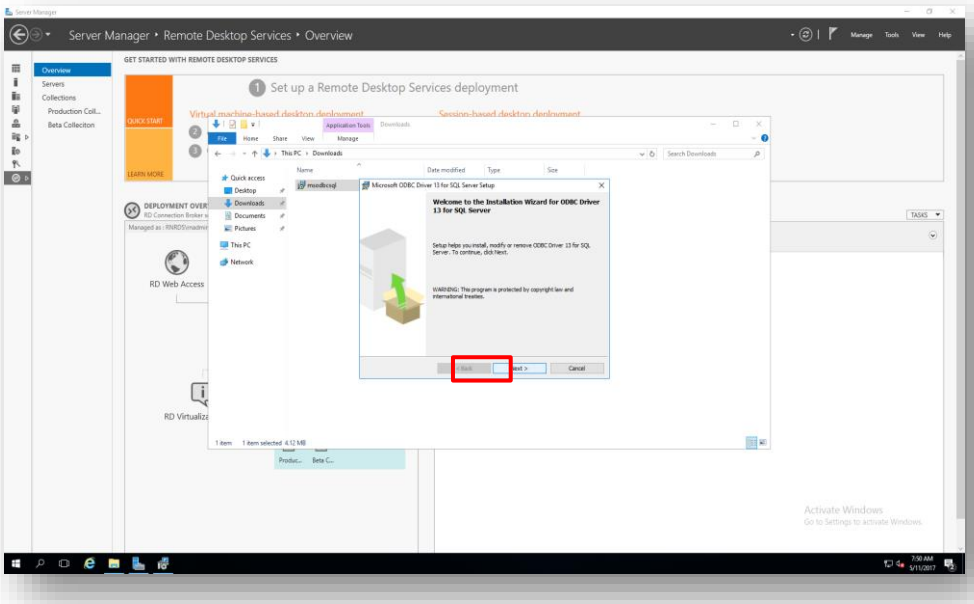
- Specify **ODBC** and copy the connection string



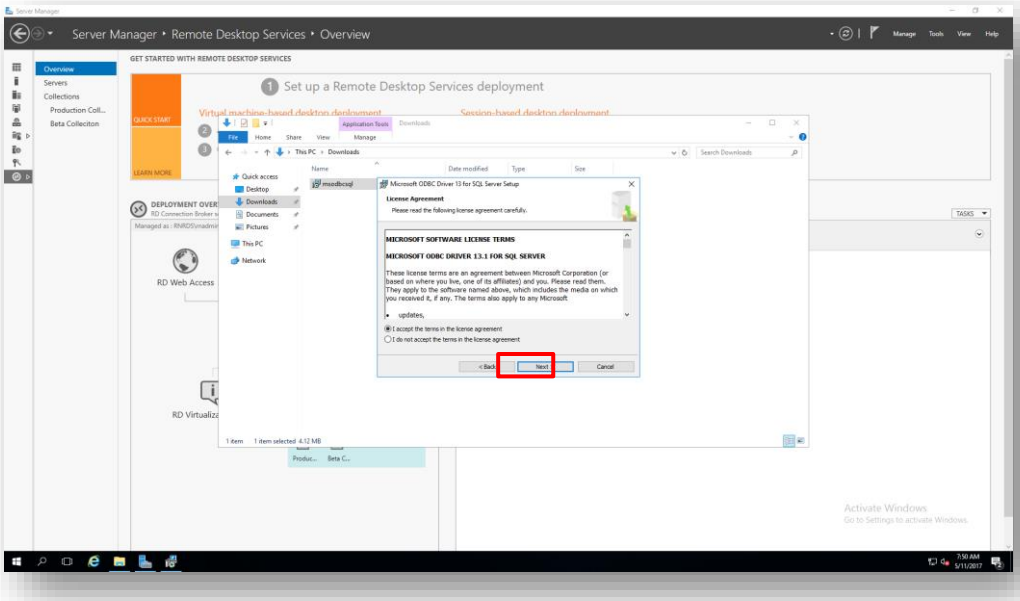
- Download **ODBC SQL Client driver 13** from the **Azure Portal** on all your broker servers and install it



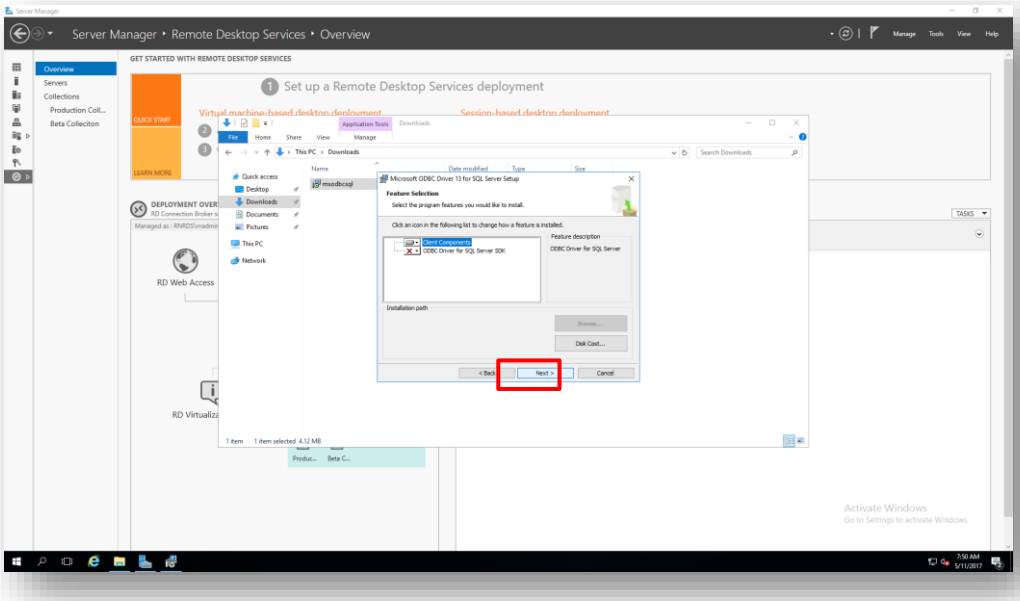
- Click **Next**



- Click I accept the terms in the license agreement and then click Next

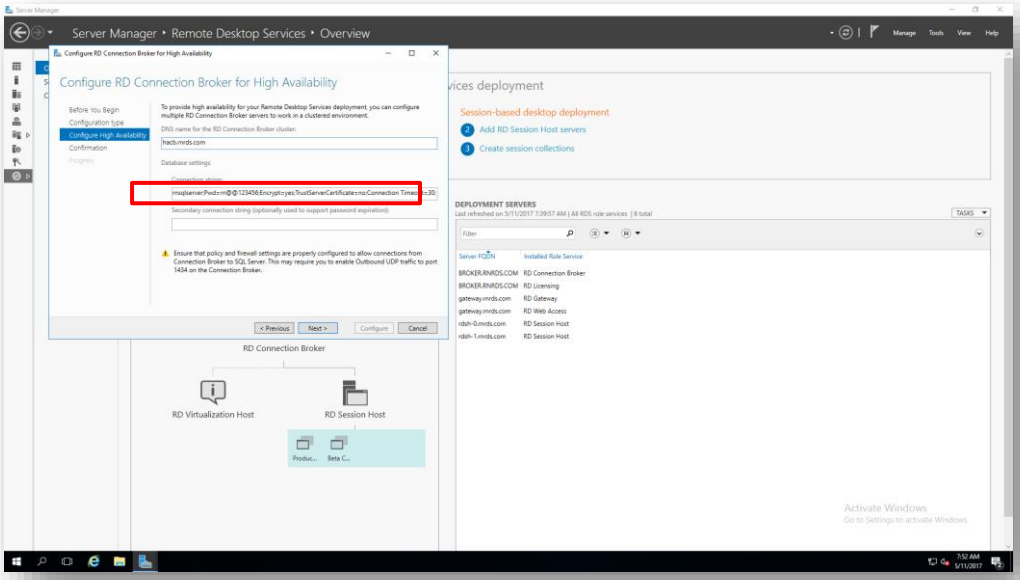


- Click Client Components and then click Next

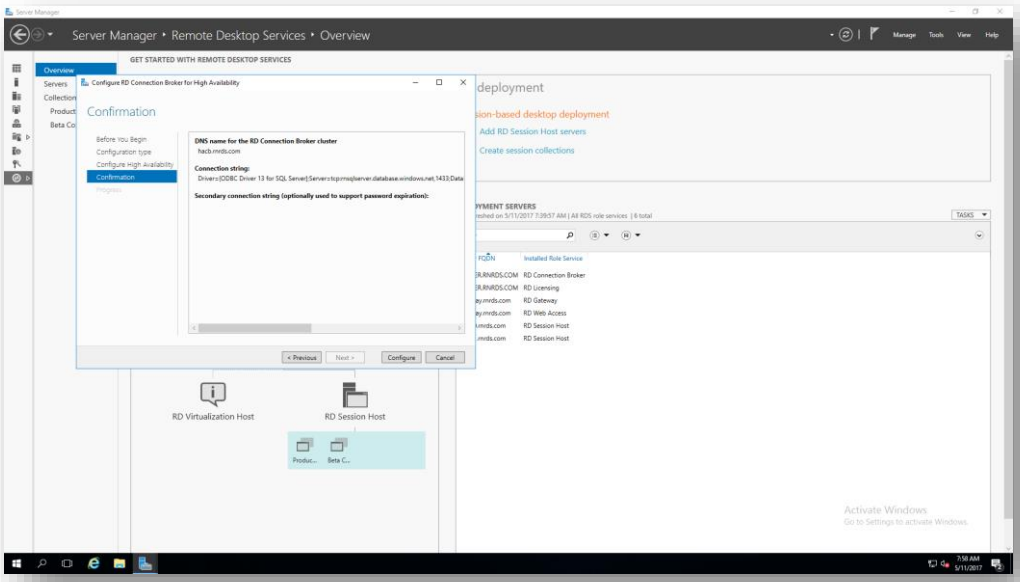


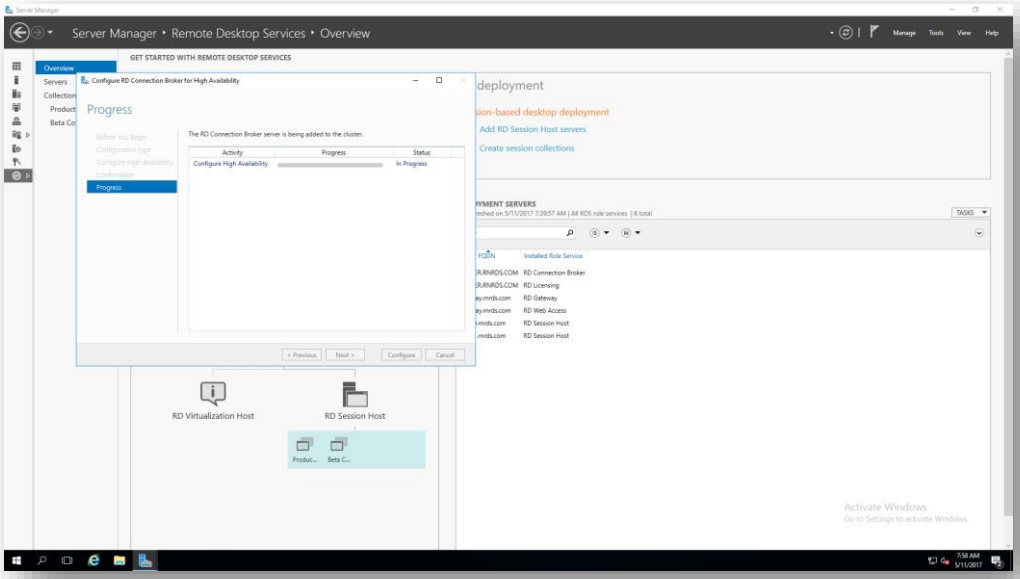
- Once SQL Native Client drive is installed you can proceed with configuring High Availability
- Paste the Connection String that you have collected from Azure portal and provide your password in the connection string
- For example, Driver= {ODBC Driver 13 for SQLServer};Server=tcp:xxxxxxxxxxxx.database.windows.net,1433;Database=HACB;U

id=xxx@xxxxxxxxxxxx;Pwd={your_password_here};Encrypt=yes;TrustServerCertificate=no;Connection Timeout=30

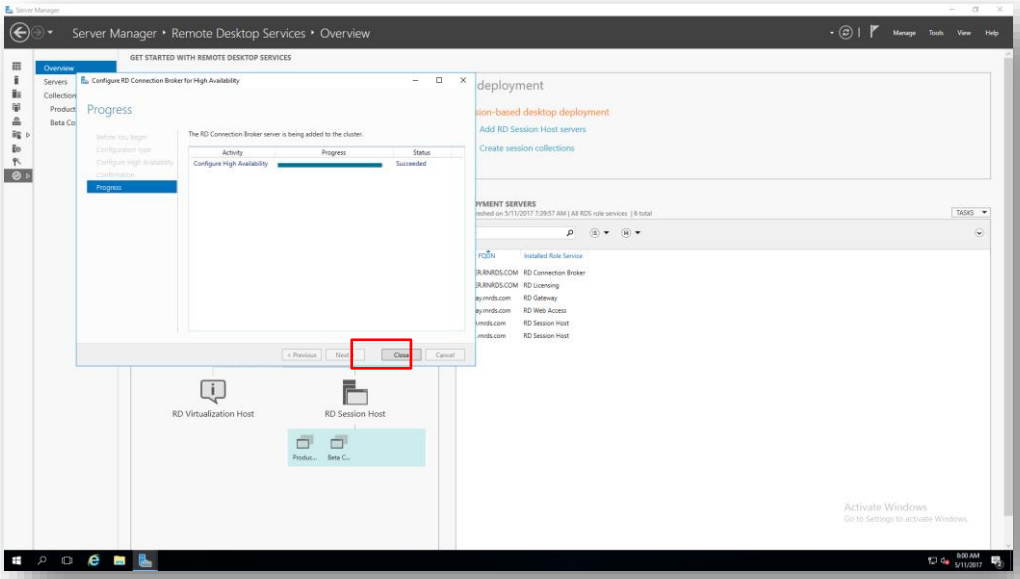


- Verify **DNS name** and **Connection string** details and the nclick **Configure**




Server Manager • Remote Desktop Services • Overview
GET STARTED WITH REMOTE DESKTOP SERVICES
Configure RD Connection Broker for High Availability
Progress
The RD Connection Broker server is being added to the cluster.
Activity
Progress
Status
Configure High Availability
In Progress
deployment
Add RD Session Host servers
Create session collections
RD Virtualization Host
RD Session Host

- Click **Close**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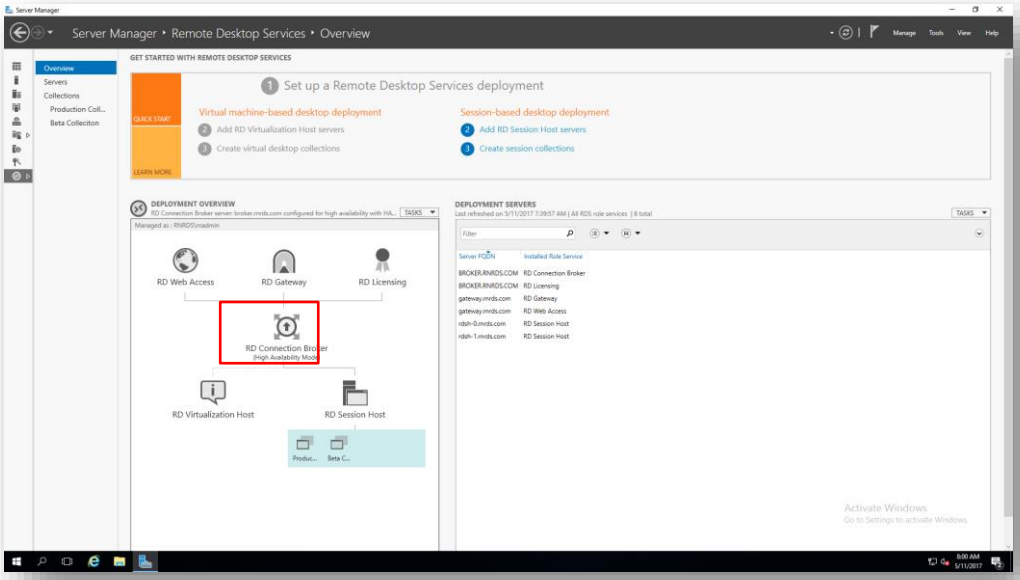
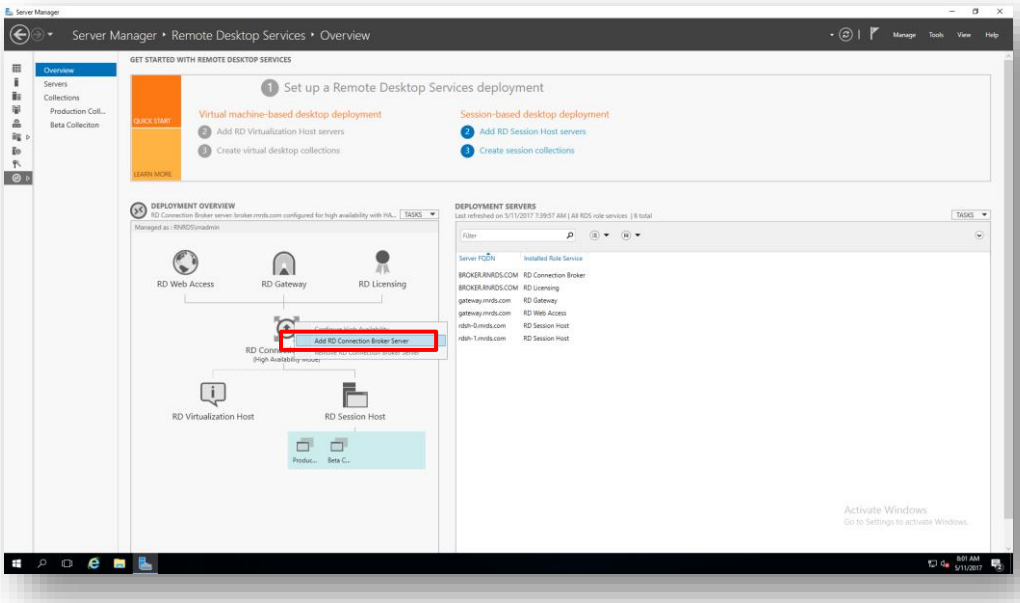
Activity
Progress
Status
Configure High Availability
Succeeded
Close
deployment
Add RD Session Host servers
Create session collections
RD Virtualization Host
RD Session Host

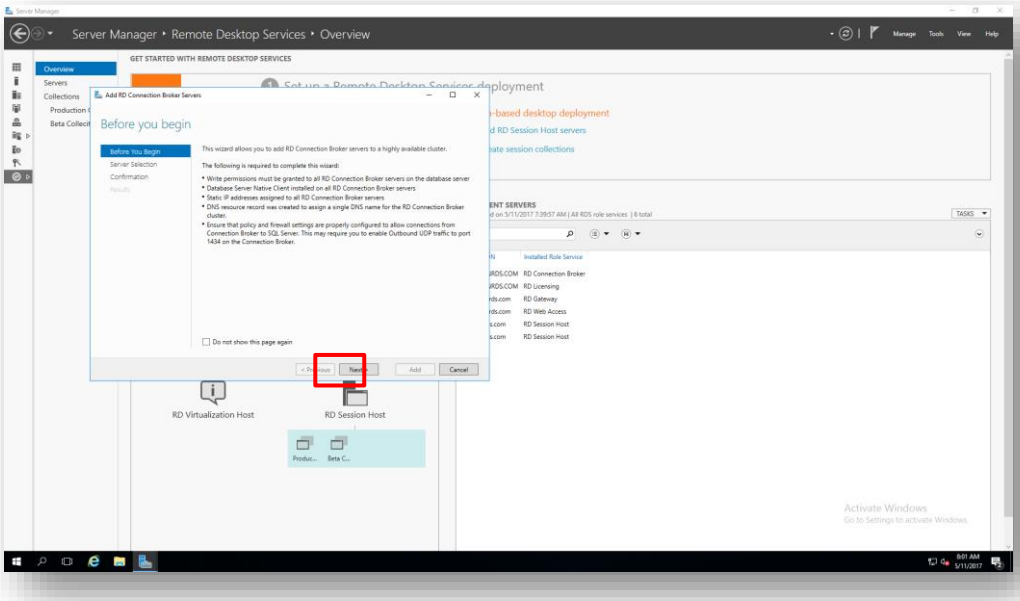
- Once High Availability is configured, Add the Server to function as a High Availability Connection Broker



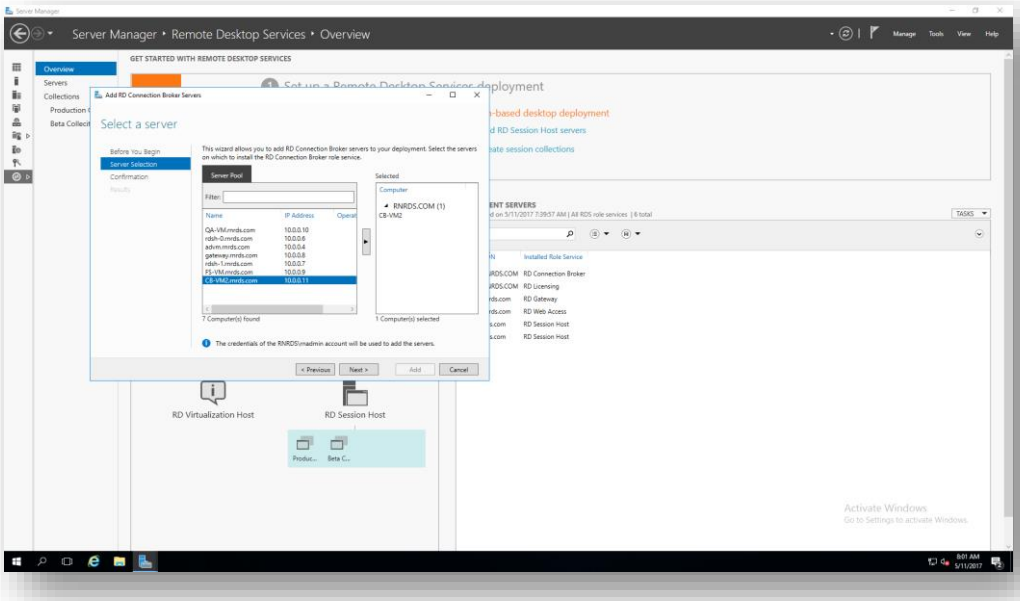
- Right-cClick on the **Connection Broker** icon and specify **Add RD Connection Broker Server**



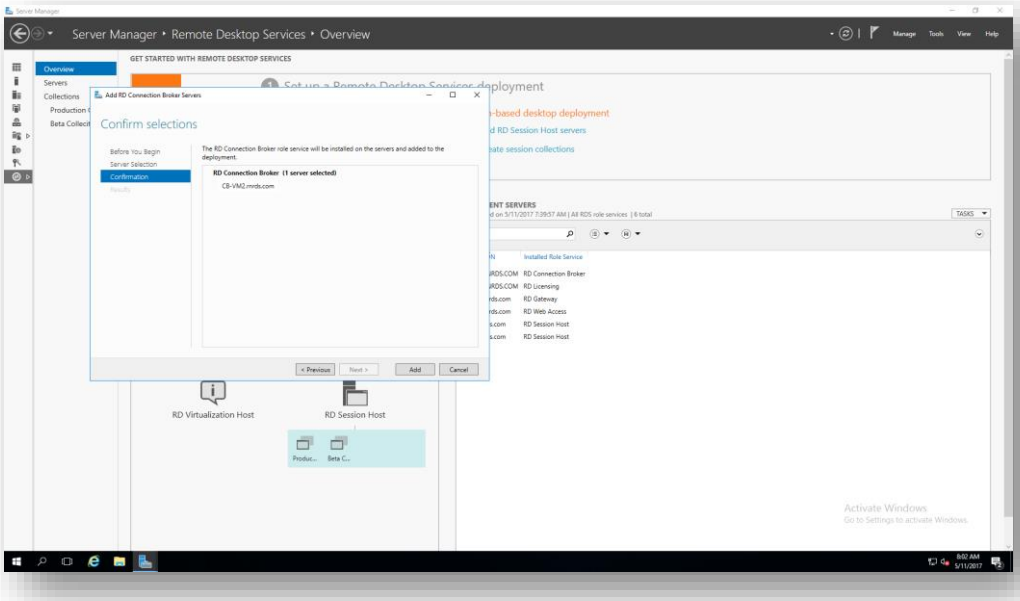
- Click **Next**



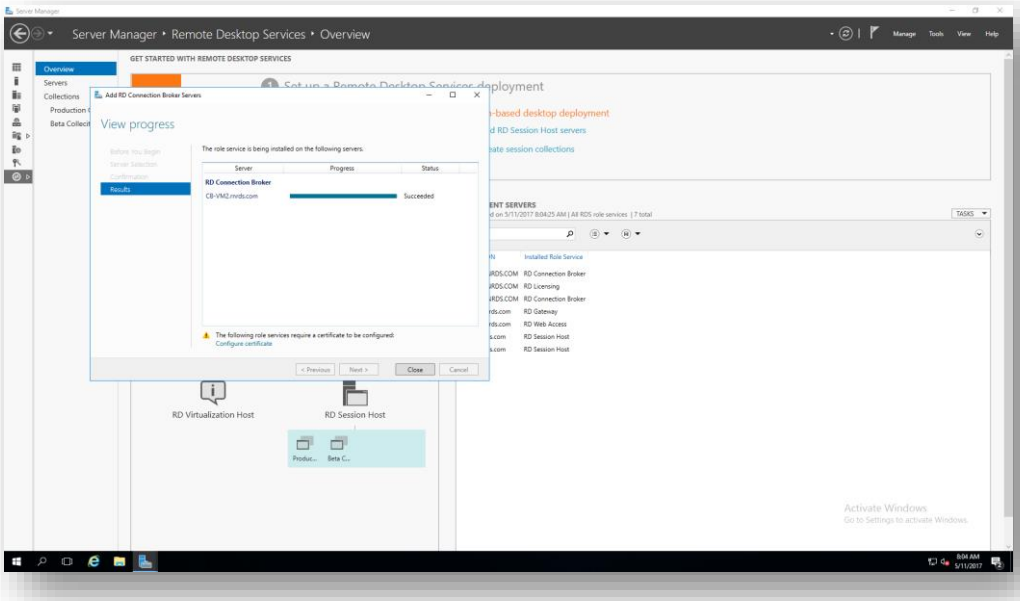
- Specify the **High Availability VM**



- Click **Add**



- Click **Close**



Microsoft

References

https://docs.microsoft.com/en-us/windows-server/remote/remote-desktop-services/rds-connection-broker-cluster