Amazon RDS on VMware

How to Set up Microsoft SQL Server Database on a RDS on VMware Custom Availability Zone

vmware®

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VMWARE VSPHERE

- Any vSphere that can accommodate the requirements listed will be able to run Amazon RDS on VMware
- vCloud Foundation and other SDDC flavors will work if requirements are met

OTHER VMWARE TECHNOLOGIES

- NSX is not required but has been properly validated with the solution
- vSAN is not required but has been properly validated with the solution
- VxRail has been validated (development occurred over VxRail)

Introduction

Amazon RDS on VMware (also referred to as RDS on VMware) is a service that will make it easy for customers to set up, operate, and scale databases in VMware-based software-defined data centers (SDDC) and hybrid environments.

RDS on VMware automates database provisioning, operating system and database patching, backup, point-in-time restore, instance scaling, instance health monitoring, and failover.

RDS on VMware has been certified to leverage most of the resiliency, durability and high availability features available on vSphere 6.5 and 6.7. We don't recommend deploying Amazon RDS on VMware atop of older vSphere editions.

This document provides information on how to set up a Microsoft SQL Server Database for a Custom AZ.

NOTE You must bring your own media and Microsoft SQL Server license to create RDS on VMware managed SQL Server database.

Managing On-Premises Databases Using RDS on VMware

RDS on VMware comprises of a set of VMs running on your vSphere infrastructure, connected through a dedicated VPN tunnel to the AWS region. This service provides a single pane of glass experience via the AWS management Console, CLI, and APIs to manage RDS databases running on-premises and in AWS.

Using RDS on VMware has many advantages:

- Easy to administer
- Performant and Scalable
- Available and durable
- Leverages existing infrastructure

RDS on VMware supports Microsoft SQL Server, PostgreSQL, and MySQL.

NOTE Importing the Windows OS and Microsoft SQL Server media may take 3-4 hours.

How to Set Up Microsoft SQL Server Database Instance for a Custom AZ for RDS on VMware

Setting up the Microsoft SQL Server database for a Custom AZ is a 2-step process. You must first import the Microsoft Windows OS 2016 and the SQL Server 2016 media before you create a database.

The following procedure provides the steps to connect the vSphere Cluster where RDS on VMware is installed, to a Microsoft SQL Server database. **Currently, only the following media is supported:**

- OS Installation Media
    - Windows Server 2016
    - Windows Server 2016 (Updated January 2017)
    - Windows Server 2016 (Updated February 2018)

  For more information, see *https://my.visualstudio.com/Downloads?q=windows%20server%202016*.
- Engine Installation Media
    - SQL Server 2016 Enterprise
    - SQL Server 2016 Enterprise with Service Pack 1
    - SQL Server 2016 Enterprise with Service Pack 2

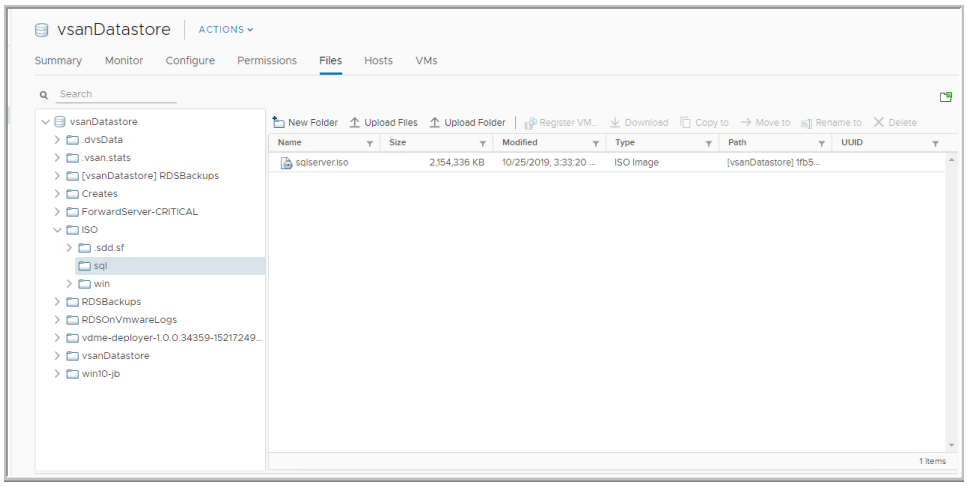
  For more information, see *https://my.visualstudio.com/Downloads?q=sql%20server%202016*.

Prerequisites

1. You must have completed setting up RDS on VMware.
2. The status of the custom AZ must be Active.
3. You must have downloaded the Installation media (ISOs) for Windows Server and Microsoft SQL Server from *microsoft.com* and imported it to the same datastore that you specified during the installation of the RDS on VMware installer.

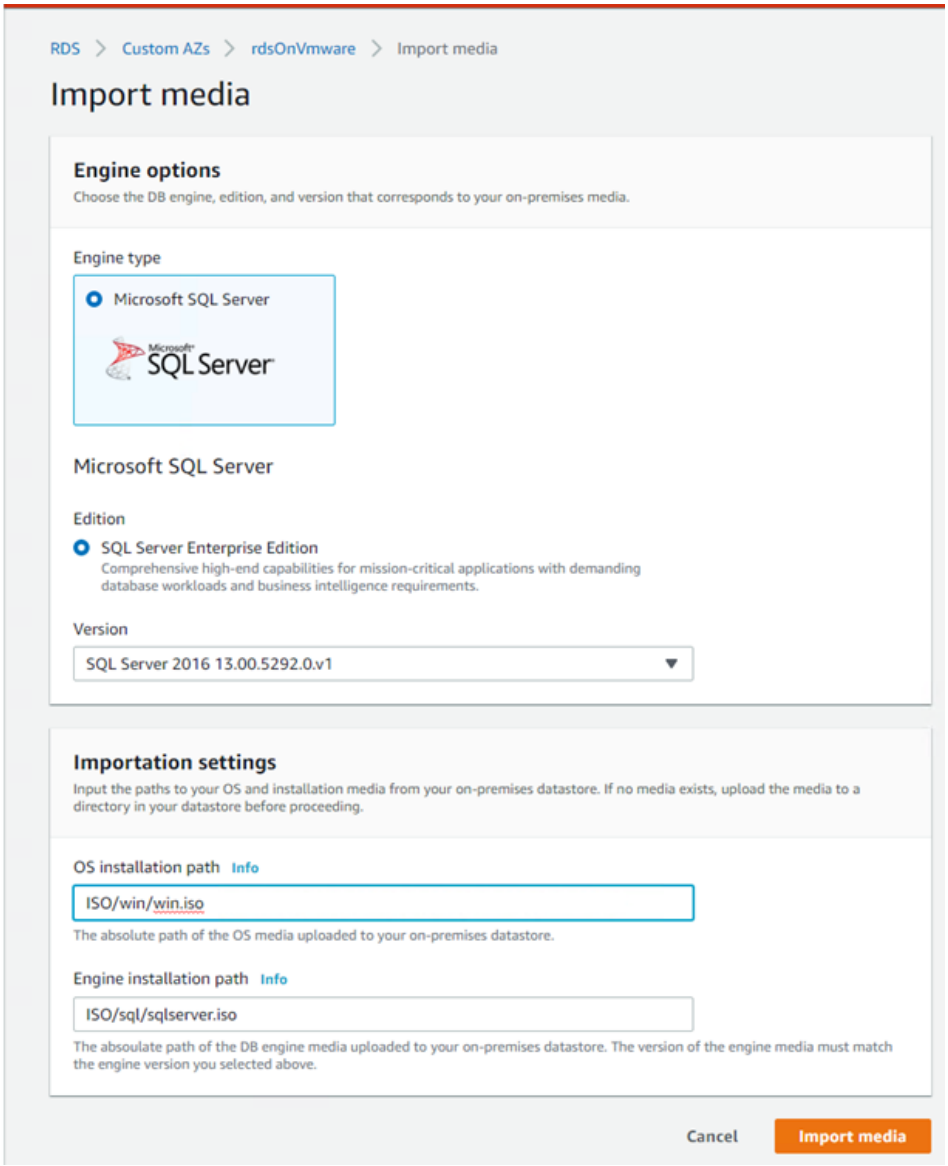
Procedure

1. Log into the AWS console.
2. Select RDS under Database Services.
3. Click Custom Availability Zones on the left sidebar.
4. Select the custom AZ you had created earlier.
5. Under Install Media, click Import.
6. Provide the ***absolute path*** for the media. Do not provide the name of the datastore in the path. Start the path with the subfolder where the ISOs are located. For example:
    a. OS Installation Path – ISO/win/<*filename*>.iso
    b. Engine Installation Path – ISO/sql/<*filename*>.iso

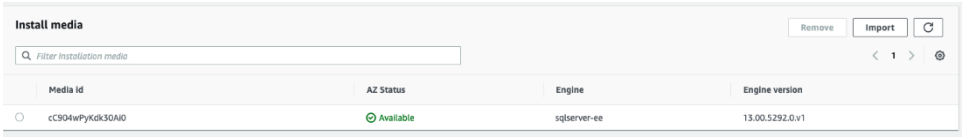


NOTE Importing the Windows OS and Microsoft SQL Server media is a one-time activity. After a successful import, you can create multiple databases using the same media.

7. Click Import Media.



8. From the AWS console, go to the custom AZ you created earler and check under Install Media. If the media is imported successfully, the status is set to Available.



Note

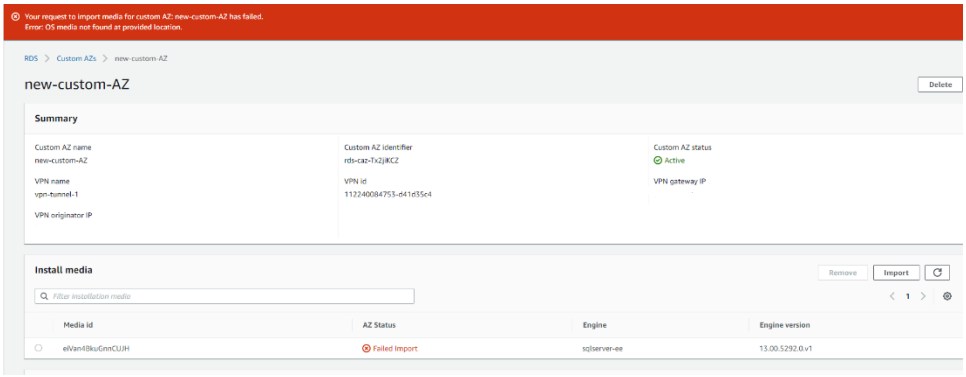
- After the media is imported successfully and is shown as Available, you must create the database and select the Microsoft SQL Server version you just imported. See the AWS documentation for information about creating a database from the AWS console.
- The Microsoft SQL Server database VM instances must have access to Microsoft endpoints such as **.microsoft.com* via HTTPS.

Troubleshooting

Error while installing the media

If you provide an incorrect location of the ISOs, the import will fail.

While the media will not get imported, you might still see the Media ID on the Custom AZs screen.



Resolution

Select the media listed under Install Media, delete it, and re-import the media with the correct location of the ISOs.

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