

Dell EMC ECS with Veeam Backup & Replication

Abstract

This document describes how to configure Veeam® Backup & Replication™ with Dell EMC™ ECS.

March 2019

Revisions

| Date | Description |
|------------|-----------------|
| March 2019 | Initial release |

Acknowledgements

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Author: [Paul McKeown](#)

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Executive summary

This document focuses on the integration between the Dell EMC™ ECS system and Veeam® Backup & Replication™ software. It describes the steps required to install and configure the integration.

Objectives

The main objective of this guide is to show how to configure an ECS system as a backup-archive target with Veeam Backup & Replication.

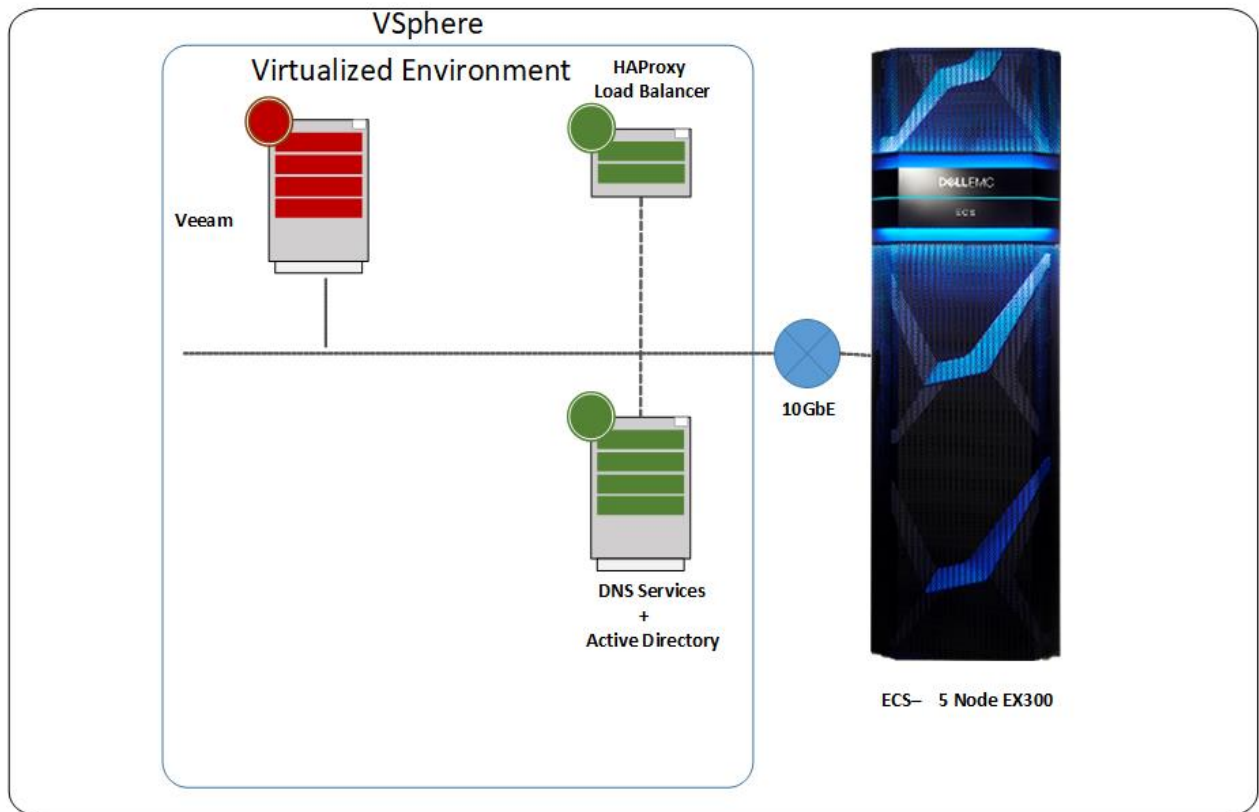
Audience

This document is intended for administrators who will deploy and configure an ECS system with Veeam Backup & Replication software. This paper assumes a high level of technical knowledge for the devices and technologies described.

1 Solution overview

This section provides an overview of the integration of ECS with Veeam Backup & Replication and the key technologies used.

1.1 Solution architecture



Unstructured Data Storage Solution Architect Lab

Figure 1 Veeam Backup & Replication and Dell EMC ECS architecture diagram

1.2 Key components

Table 1 Dell EMC ECS

| Component | Description |
|--------------|------------------------------------------------------|
| Dell EMC ECS | EX300 appliance 5 nodes 12 x 1 TB disks / node |
| ECS version | 3.3 |

Table 2 Veeam Backup & Replication

| Component | Description |
|-------------------------|---------------------------------|
| Veeam version | 9.5U4 |
| Operating system | Microsoft® Windows Server® 2012 |
| CPU | 16 vCPU |
| RAM | 128 GB |
| Operating system disk | 12 GB SSD |
| Veeam application disk | 200 GB SSD |
| Veeam backup repository | 4 TB |
| Network NIC | 10 GbE |

2 Solution implementation

This section describes the high-level steps required to deploy Veeam Backup & Replication with ECS.

2.1 Implementation workflow

The following steps describe how to configure the solution.

1. Install ECS.

Customers should engage, through their sales team, with Dell EMC Customer Services and Professional Services to perform the following:

- Visit the site
- Scope the installation requirements
- Arrange installation and configuration of ECS

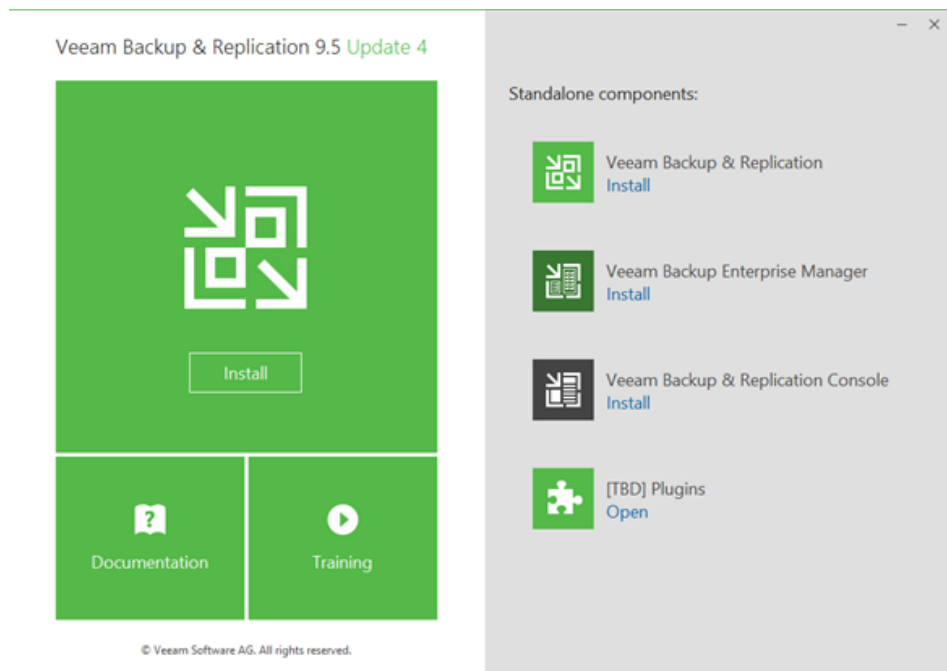
2. Create an ECS namespace for Veeam backups.
3. Create an Veeam ECS access key and secret key.
4. Create an ECS bucket for Veeam to use.
5. Install Veeam Backup & Replication software.
6. Configure Veeam to use ECS as an object store for archiving backups.

2.2 Installation and configuration steps

2.2.1 Install Veeam Backup & Replication

To install Veeam Backup & Replication, mount the installation ISO and perform the following:

1. Click **Install**.



2. Enter the license file details.

Provide License
Provide license file for Veeam Backup & Replication.

License file for Veeam Backup & Replication:

Browse...

A valid license is already installed on this machine.

< Back **Next >** Cancel

3. Click **Next** and click **Next** again.

Provide License
Provide license file for Veeam Backup & Replication.

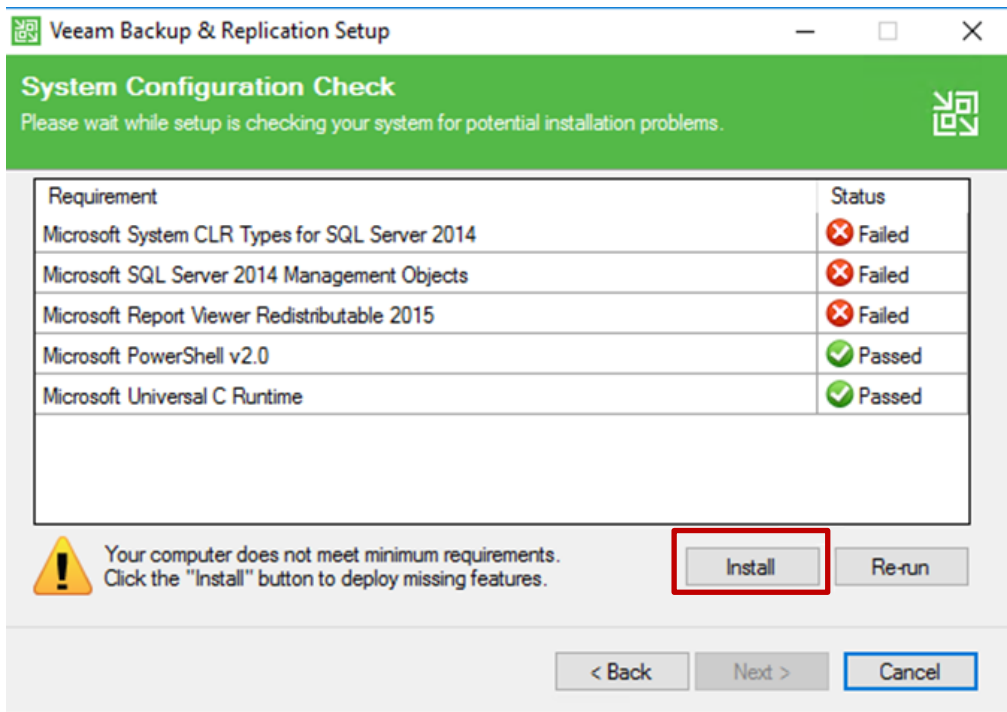
License file for Veeam Backup & Replication:

Browse...

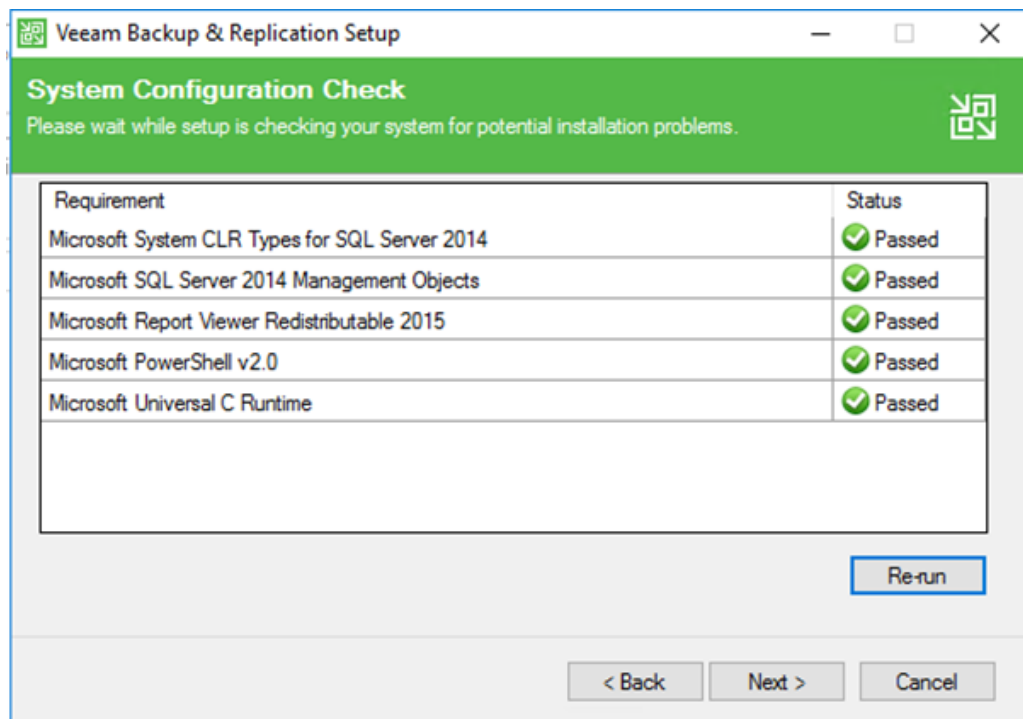
A valid license is already installed on this machine.

< Back **Next >** Cancel

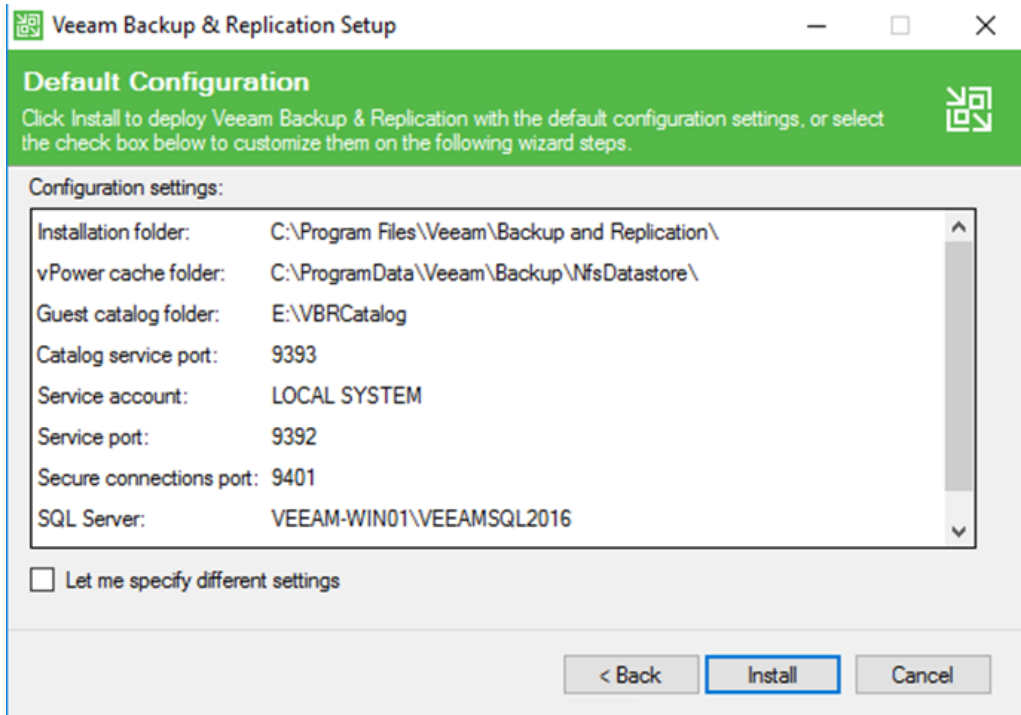
- The install process will assess the Windows Server installation to see if further Windows software is required to be installed.



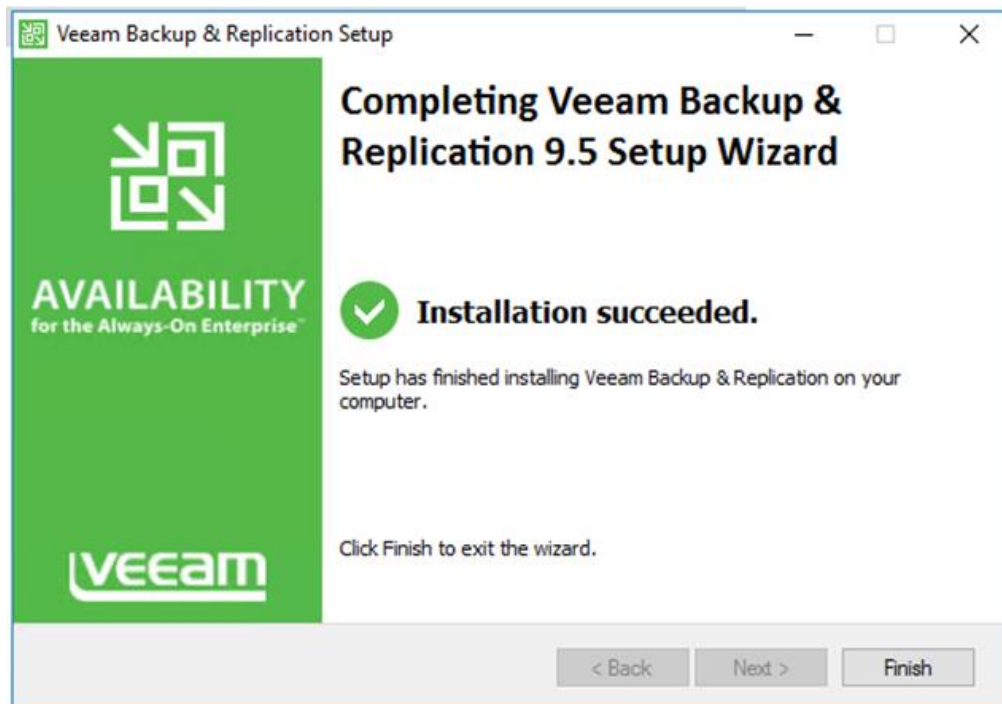
- If any of the required features are not present (as in this example) click **Install** to install them.



- Click **Next** to proceed.



- Review the installation details provided. The Guest catalog folder will be placed on the windows disk that has the most space available, you may wish to override that. Click **Install** to proceed.
- The installation process will install MS SQL Server Express on the Windows Server and then Veeam Backup and replication.

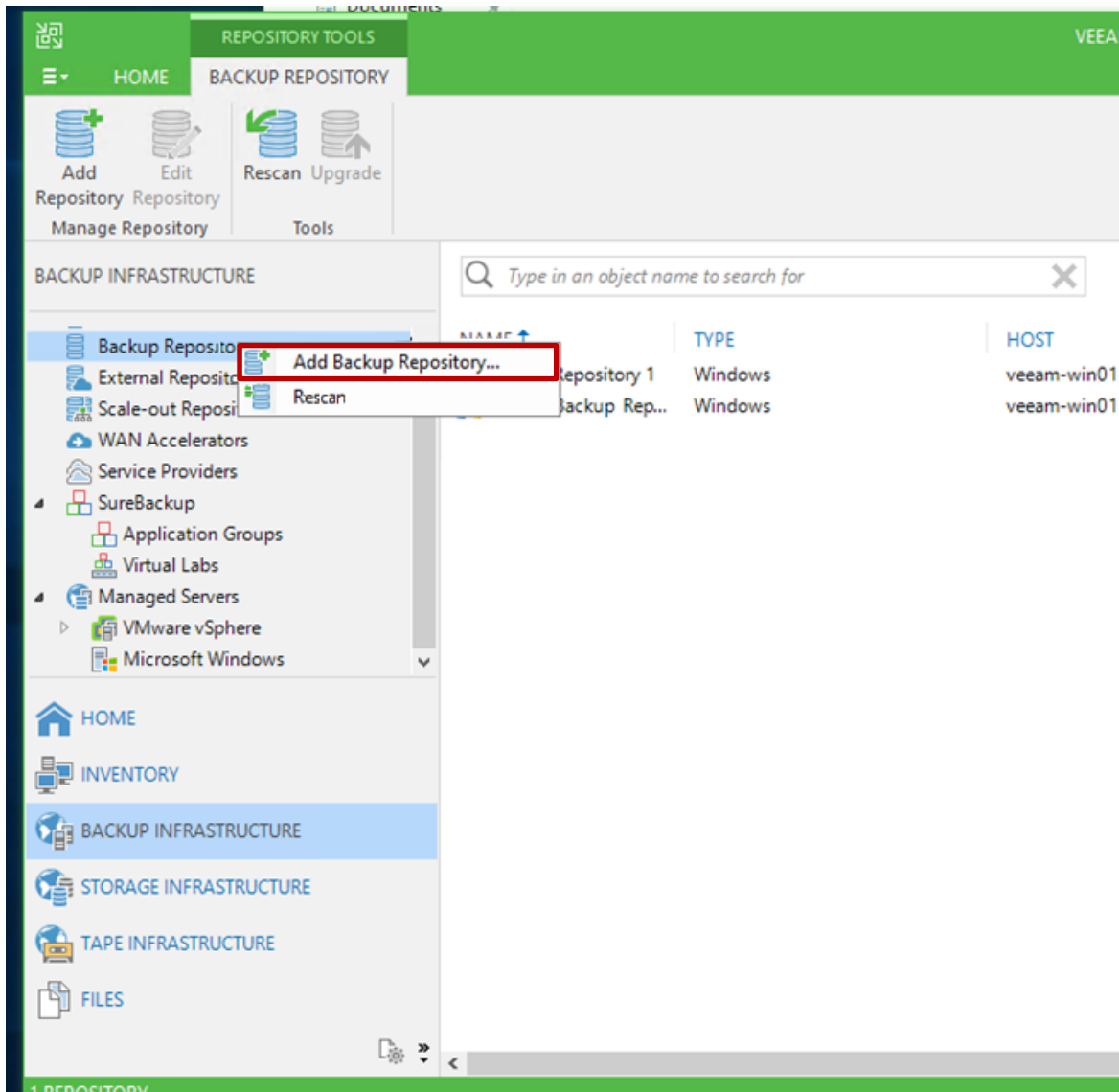


This completes the installation of Veeam Backup & replication.

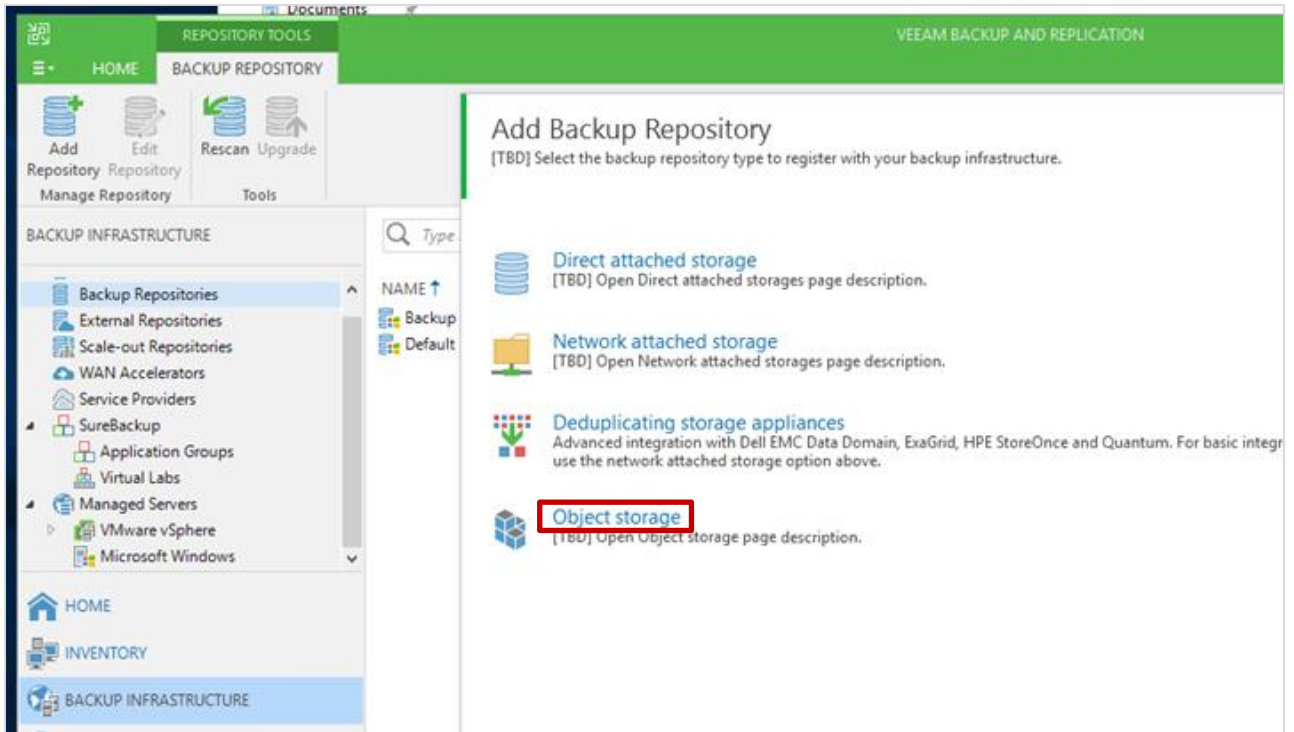
Note: If you reinstall, it is not sufficient to uninstall both Microsoft® SQL Server and Veeam. You will need to delete the SQL database created for the previous Veeam installation.

2.2.2 Configure Veeam to use ECS as an object storage repository

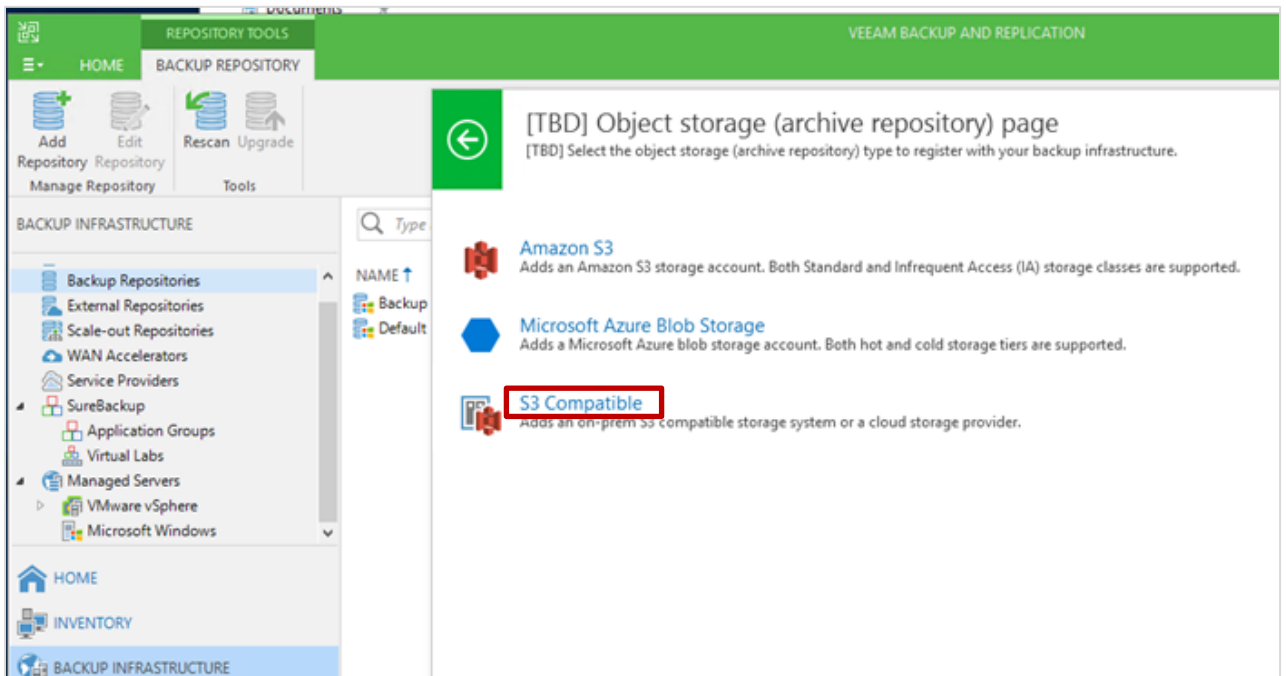
1. Within the Veeam management GUI under **Backup Infrastructure** in the navigation pane, right-click **Backup Repository** and choose **Add Backup repository**.



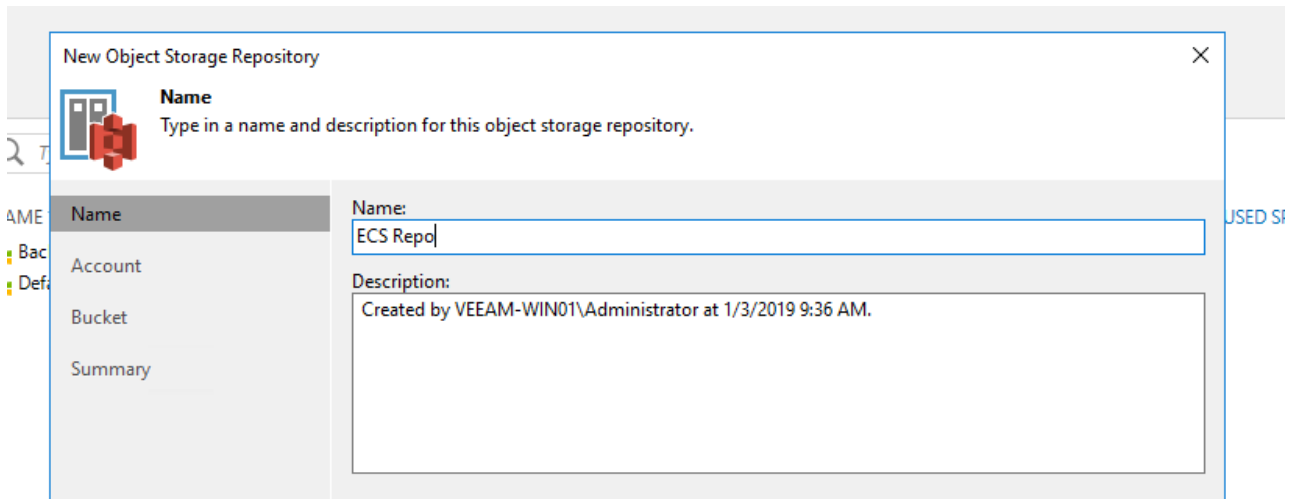
2. Select **Object storage**.



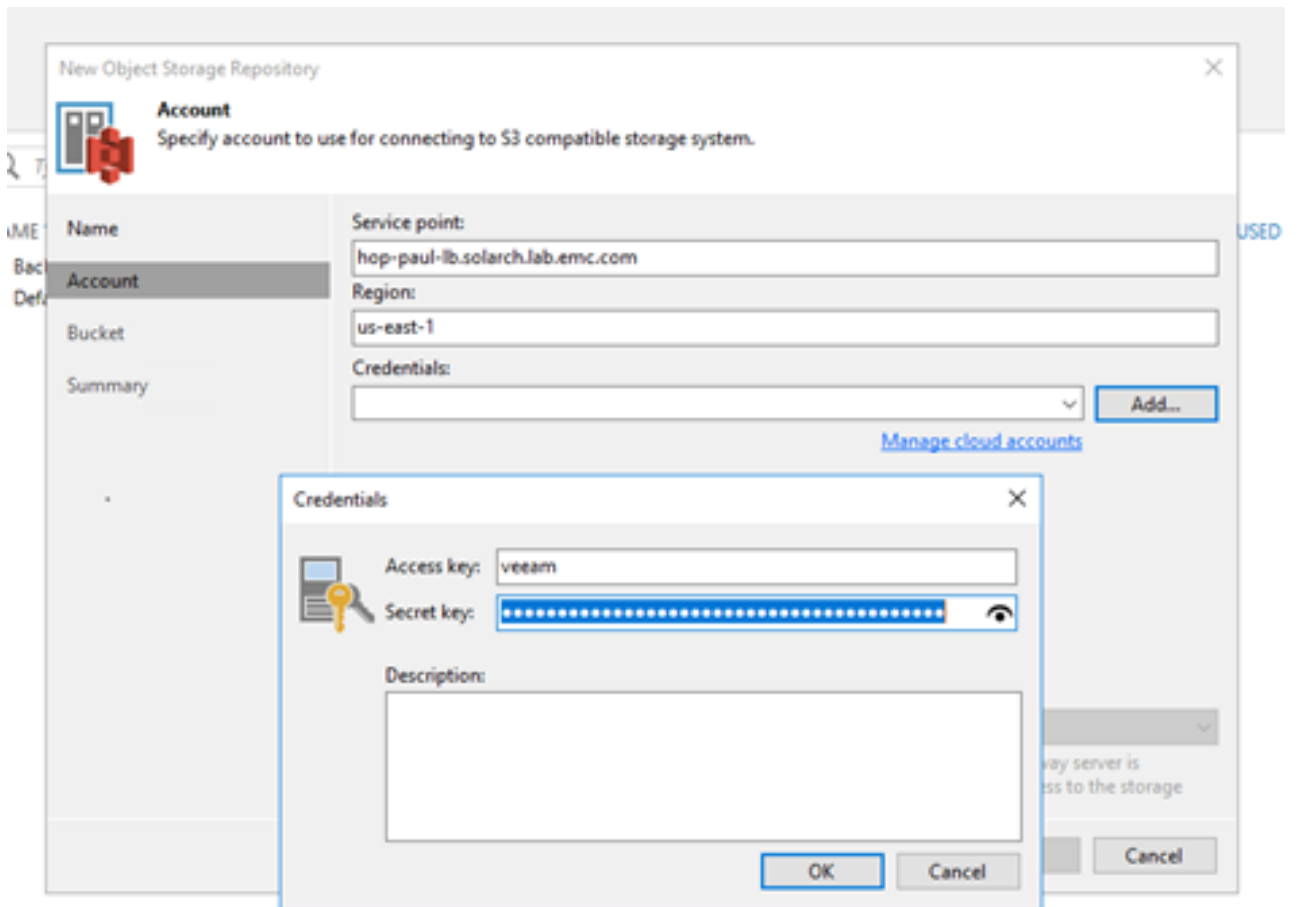
3. Select **S3 Compatible**.



4. Give the repository an appropriate name and click **Next**.



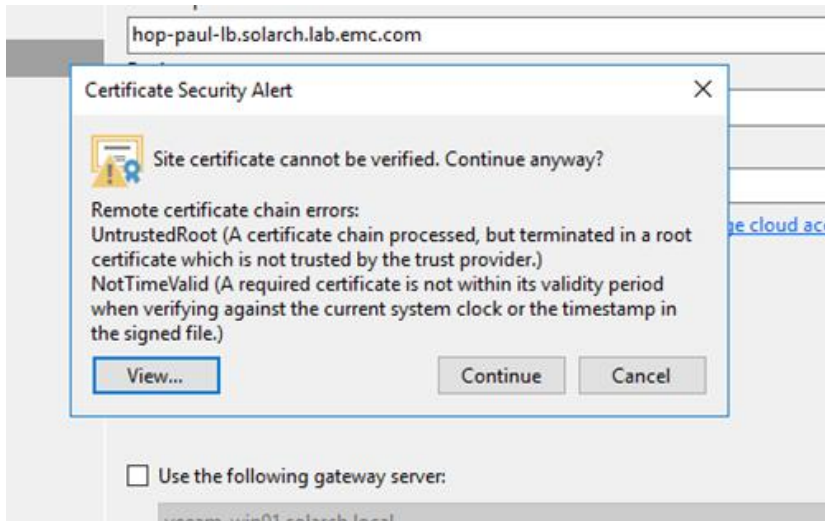
5. Since ECS is a cluster of nodes with their own IP address, you will need to front it an IP load balancer (DNS round robin is not recommended), and supply the IP address or FQDN name of the load balancer as the service point.



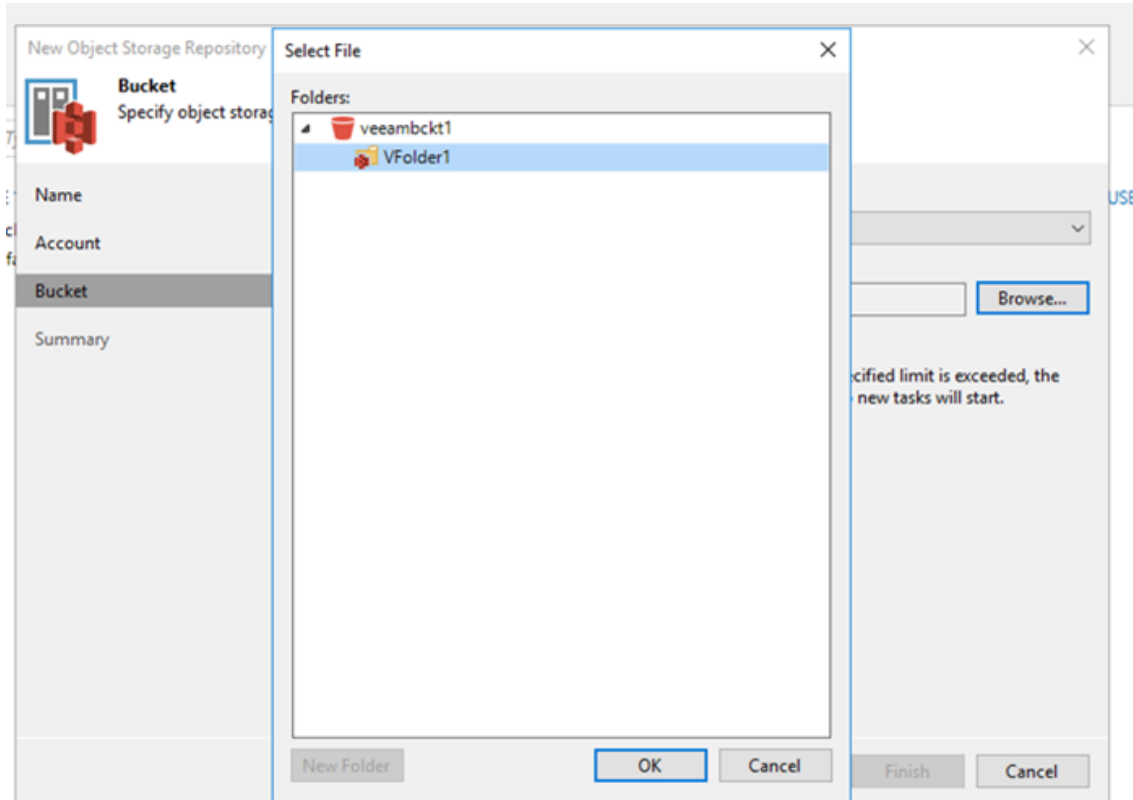
- Click **Add** to supply an ECS access key and secret key as shown. Click **OK** and click **Next**

Note: Veeam will connect only on port 443.

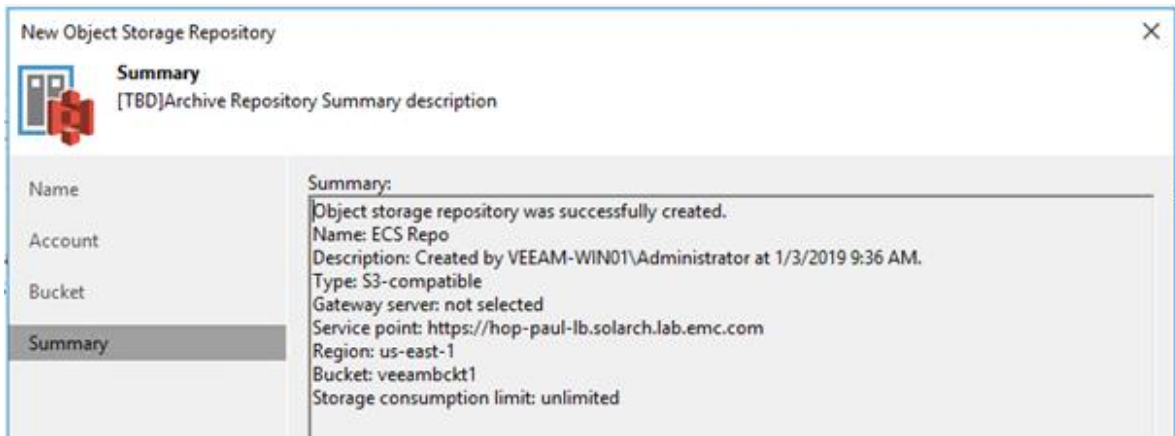
- You will also need to ensure that you have a signed certificate set up for the load balancer. If you are using a self-signed certificate (as tested for this document) you will be prompted to confirm its use.



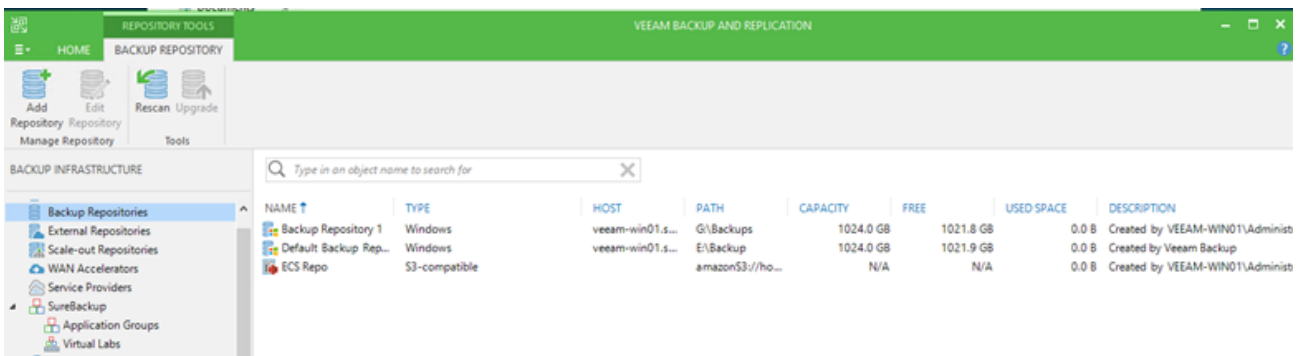
- At the next screen you can select **Browse** to select the pre-created bucket on the ECS and create a folder within it for Veeam to use.



9. Click **Next** for the new object repository to be created.

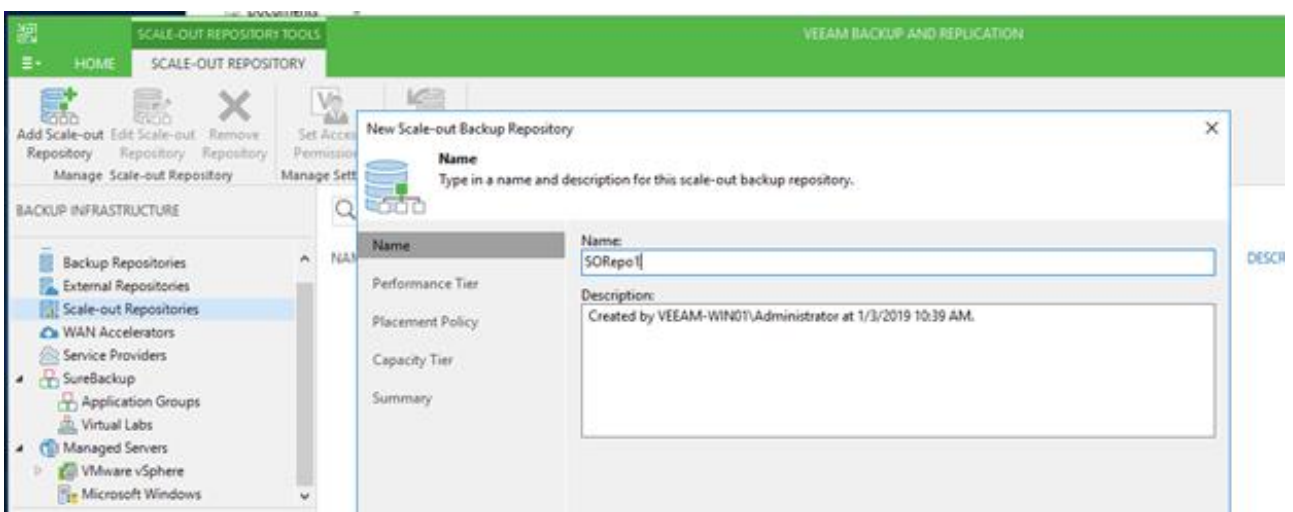


10. Click **Finish** and notice the new object storage repository has been created.

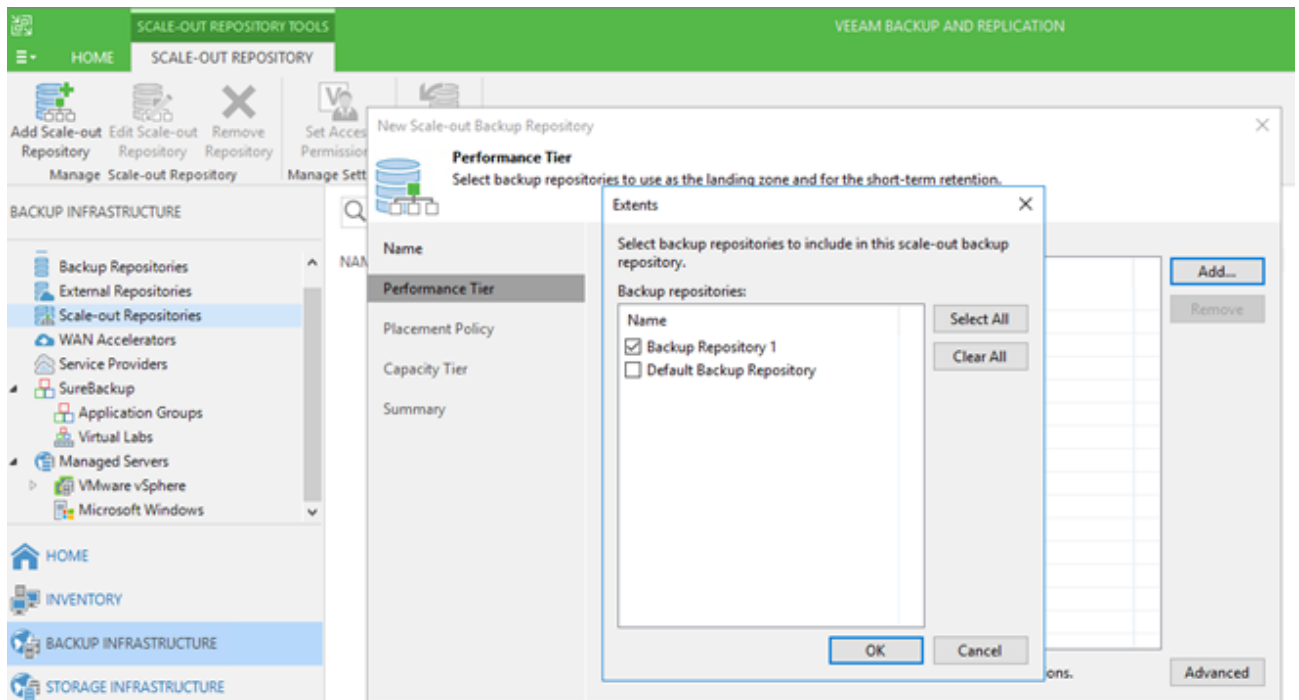


Veeam has now been configured with an ECS object storage repository.

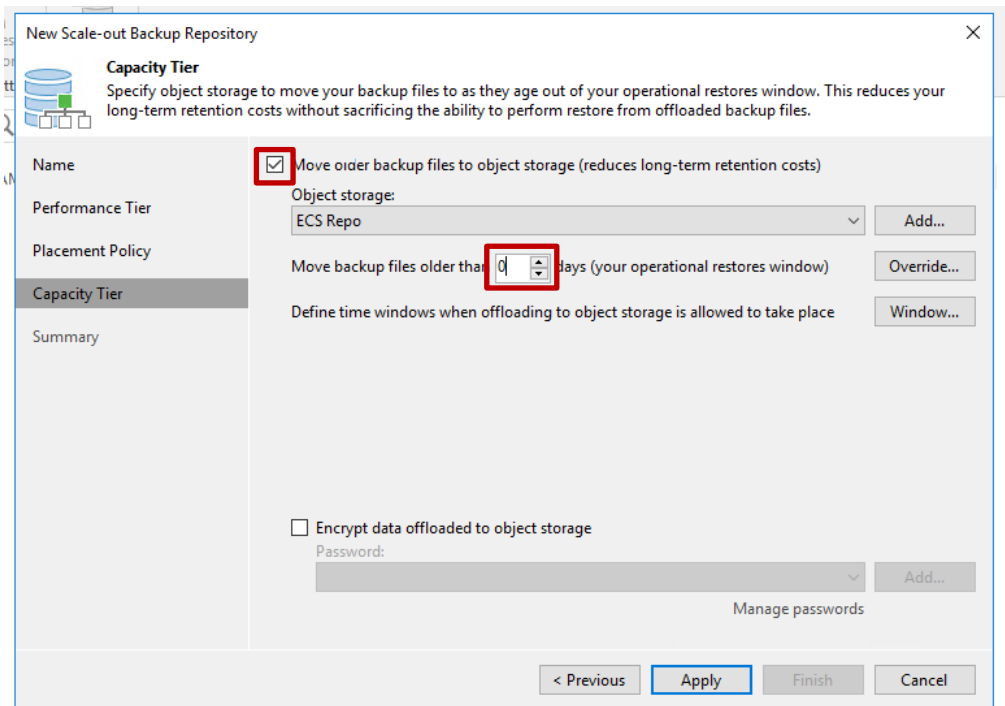
11. At this point, it is typical to create a scale out repository that can use the ECS object storage repository. In the Veeam admin GUI, click **Backup Infrastructure > Scale-out Repositories** and click **Add Scale-out repository**.



12. Give the repository an appropriate name and click **Next**.
13. On the **Performance Tier**, click **Add** and select the object repository to create this scale out repository in.



14. At the **Capacity Tier** screen, click the **Move older backup files...** radio button and select the ECS Object Store. Set the **Move backup file older** field to the time after which backups will be moved from this scale out repository to the ECS object store.



15. Click **Apply** and click **Finish**.

The ECS object store is in use and can be used to archive backups to.

3 Configuration and tuning

The following configuration and tuning changes are recommended.

Table 3 Configuration and tuning recommendations

| Description | Detail |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| IP load balancer | An IP load balancer should be used so that Veeam Backup & Replication can use all nodes in the ECS system. |
| Port | By default, Veeam Backup & Replication will use port 443 when communicating with the ECS (IP load balancer). |
| SSL certificate | By default, Veeam Backup & Replication will expect a signed SSL certificate to be installed on the ECS or IP load balancer. |

A Technical support and resources

[Dell.com/support](https://dell.com/support) is focused on meeting customer needs with proven services and support.

[Storage technical documents and videos](#) provide expertise that helps to ensure customer success on Dell EMC storage platforms.

See [Dell EMC ECS documentation](#) to access the Administration Guide, Data API, and Monitoring Guide.