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For the most up to date information about company contacts and offices location, please visit www.veeam.com/contacts.html.

Online Support

If you have any questions about Veeam products, you can use the following resources:

- Full documentation set: www.veeam.com/documentation-guides-datasheets.html
- Community forum at forums.veeam.com
About This Document

This guide provides step-by-step instructions and recommendations for successful installation of Veeam Management Pack for VMware.

Intended Audience

This guide is intended for IT staff who will perform installation of the Veeam MP for VMware components.

Document Revision History

<table>
<thead>
<tr>
<th>Revision #</th>
<th>Date</th>
<th>Description of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision 3</td>
<td>04/10/2019</td>
<td>Update for Veeam Management Pack 8.0 – Update 6 for System Center: System Requirements.</td>
</tr>
<tr>
<td>Revision 2</td>
<td>08/30/2018</td>
<td>Initial version of the document for Veeam Management Pack 8.0 – Update 6 for System Center.</td>
</tr>
<tr>
<td>Revision 1</td>
<td>03/06/2018</td>
<td>Initial version of the document for Veeam Management Pack 8.0 – Update 5 for System Center.</td>
</tr>
</tbody>
</table>
Introduction

Veeam Management Pack for System Center provides integration, monitoring, advanced reporting, and detailed topology features for virtualized systems and their hosts, and the associated network and storage fabric. The Veeam Management Pack allows these advanced features to be leveraged across multiple System Center components, including System Center Operations Manager, Orchestrator, Virtual Machine Manager and Service Manager.

This guide will walk you through the installation for the Veeam Management Pack for VMware (Veeam MP for VMware), part of the Veeam Management Pack for System Center. The Veeam MP for VMware includes the following components:

- **Veeam VMware Collectors**
  The Collectors gather data from VMware systems, via best-practice SDK methods, and deliver it to Ops Mgr for processing by MP rules, monitors and reports.

- **Veeam Virtualization Extensions Service**
  This service manages and configures Veeam Collectors, allowing for centralized configuration, and advanced features such as high-availability monitoring and load-balancing.

  Veeam Virtualization Extensions Service (VE Service) incorporates Veeam Virtualization Extensions Shell (VEShell). VEShell extends Windows PowerShell to allow configuration and management of VE Service through command line. VEShell provides a set of its own cmdlets allowing you to automate configuration and monitoring tasks.

- **Veeam Virtualization Extensions UI**
  The Veeam Virtualization Extensions UI (Veeam UI) allows configuration for the VE Service and the managed Collectors.

- **MP components**
  MP components provide rich and flexible capabilities for VMware management, fully and natively integrated with System Center. Primary functionality is in the Ops Mgr console, with advanced monitors, dashboards and reports. The libraries in these MPs can also be imported to Service Manager, and will allow integration with Orchestrator.

The guide provides step-by-step procedures to follow at various installation stages, and the factors you should consider before you install. This guide assumes that you have a good understanding of Microsoft System Center Operations Manager and VMware vSphere.
Licensing

The Veeam MP for VMware is licensed per CPU socket. ‘CPU socket’ is defined as a single, physical processor chip on a vSphere host in the monitored environment. The number of cores on a physical CPU is not a factor in Veeam MP licensing.

You will need to provide a license file during installation, so obtain your license from Veeam Software before you start installing the product. The license file will be handled by the VE Service. One license file covers the entire environment. A free 30-day trial license is available.

License Editions


<table>
<thead>
<tr>
<th>Feature</th>
<th>Enterprise</th>
<th>Enterprise Plus</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage, network and compute topology views</td>
<td>✓</td>
<td>✓</td>
<td>Topology diagrams provide app-to-metal visibility and show relationships and dependencies between physical and virtual resources.</td>
</tr>
<tr>
<td>Alerting rules and monitors</td>
<td>✓</td>
<td>✓</td>
<td>Numerous out-of-the-box rules and monitors ensure complete visibility of the virtual infrastructure, track health state and alert on potential issues to help you meet service levels and eliminate problems.</td>
</tr>
<tr>
<td>Built-in knowledge base</td>
<td>✓</td>
<td>✓</td>
<td>Built-in knowledge articles with expert guidance provide context to warnings and alerts, offer corrective actions and help decrease the resolution time.</td>
</tr>
<tr>
<td>Veeam Morning Coffee Dashboard®</td>
<td>×</td>
<td>✓</td>
<td>The dashboard provides at-a-glance real-time overview of your infrastructure. It tracks the state of infrastructure objects and the overall resource utilization, and immediately displays these changes in a single view.</td>
</tr>
<tr>
<td>Advanced Heatmap and Traffic Light dashboards</td>
<td>✓</td>
<td>✓</td>
<td>Real-time performance dashboards, top dashboards with ‘traffic lights’, and heatmaps give at-a-glance view of the infrastructure health state, performance and resource usage.</td>
</tr>
<tr>
<td>Capacity Planning dashboards</td>
<td>×</td>
<td>✓</td>
<td>The Capacity Planning report functionality of Enterprise Plus is also available as a dashboard widget, showing forecasting projections for resource usage.</td>
</tr>
<tr>
<td>Veeam Widget Library</td>
<td>✓</td>
<td>✓</td>
<td>Customizable widgets for Ops Mgr dashboards help you plan and optimize any resources in your infrastructure. The widgets can display data about any items in Ops Mgr – not just Veeam MP objects.</td>
</tr>
<tr>
<td>Feature</td>
<td>Enterprise</td>
<td>Enterprise Plus</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Reporting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veeam Report Library</td>
<td>✓</td>
<td>✓</td>
<td>Veeam Report Library includes a set of proprietary generic reports that extend functionality of the Microsoft Generic Report Library and offer a number of additional useful features. The reports included in the library can be used to analyze health and performance of any types of infrastructure objects and performance counter instances, both in the physical and virtual environments.</td>
</tr>
<tr>
<td>Capacity Planning for Hybrid Cloud reports</td>
<td>✗</td>
<td>✓</td>
<td>Veeam Capacity Planning for Hybrid Clouds MP includes reports that analyze your on-premises virtual workloads and get recommendations for the IaaS resources required in Microsoft Azure or VMware Hybrid Cloud.</td>
</tr>
<tr>
<td>Veeam VMware Analysis Reports</td>
<td>✗</td>
<td>✓</td>
<td>Veeam VMware Analysis Reports analyze health and performance of virtual infrastructure objects, evaluate the efficiency of resource utilization and optimize VMs' resource provisioning.</td>
</tr>
<tr>
<td>Veeam VMware Capacity Planning Reports</td>
<td>✗</td>
<td>✓</td>
<td>Veeam VMware Capacity Planning Reports forecast when available virtual infrastructure resources will reach their limits. These reports allow you to optimize performance and resource utilization in your virtual environment and maintain the sufficient level of resources.</td>
</tr>
<tr>
<td>Veeam VMware Performance History Reports</td>
<td>✗</td>
<td>✓</td>
<td>Veeam VMware Performance History Reports analyze performance of virtual infrastructure objects, evaluate the efficiency of resource utilization and detect top or bottom resource consumers.</td>
</tr>
<tr>
<td><strong>High Availability Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vCenter Connection Failover</td>
<td>✗</td>
<td>✓</td>
<td>vCenter Connection Failover allows host and VM monitoring to continue, even if vCenter Server goes offline. If connection to vCenter is lost, Veeam MP creates direct monitoring connections to all vSphere hosts. This feature eliminates vCenter Server as a SPoF (Single Point of Failure) for monitoring data.</td>
</tr>
<tr>
<td>Collector High Availability</td>
<td>✗</td>
<td>✓</td>
<td>Veeam Collectors can be logically divided into monitoring groups. In the event of Collector failure, monitoring jobs will be automatically and optimally distributed to other Collectors available in the monitoring group.</td>
</tr>
<tr>
<td>Load balancing of collection tasks</td>
<td>✗</td>
<td>✓</td>
<td>Users can initiate load balancing to relocate monitoring jobs across available Collectors and equalize monitoring load on Collectors.</td>
</tr>
<tr>
<td>Feature</td>
<td>Enterprise</td>
<td>Enterprise Plus</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cluster splitting</td>
<td>✗</td>
<td>✓</td>
<td>Large host clusters can be split into multiple monitoring jobs to allow more flexible load-balancing.</td>
</tr>
<tr>
<td><strong>MP for Veeam Backup &amp; Replication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veeam backup infrastructure monitoring</td>
<td>✓</td>
<td>✓</td>
<td>MP for Veeam Backup &amp; Replication provides real-time alerting on the status of Veeam Backup &amp; Replication jobs, and the health, performance and availability of the Veeam Backup infrastructure — services, repositories, proxies, and WAN accelerators.</td>
</tr>
<tr>
<td>Veeam Backup Reports</td>
<td>✗</td>
<td>✓</td>
<td>Veeam Backup Reports help you track the overall state of your backup infrastructure and optimize backup protection of VMs.</td>
</tr>
<tr>
<td><strong>Other Features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collector auto-deployment</td>
<td>✗</td>
<td>✓</td>
<td>During installation, you can choose to automatically deploy Veeam VMware Collectors on Management Servers in a specific Ops Mgr resource pool.</td>
</tr>
<tr>
<td>VEShell</td>
<td>✗</td>
<td>✓</td>
<td>VEShell provides a set of cmdlets for automating configuration and management of VE Service.</td>
</tr>
</tbody>
</table>

For further information on Veeam MP licensing, see FAQs on Veeam Management Pack for System Center.
System Requirements

Before you start installing the product, make sure your environment meets hardware and software requirements.

**NOTES:**

1. Only English (US) Windows OS is fully QA tested for Veeam components. However, Veeam will support customers using any other-language OS, to reproduce problems and establish if root cause is a language-related issue.

2. Any system configuration which is not supported by the platform vendor (Microsoft, VMware) is also unsupported by Veeam.

3. Installation of the Veeam MP for VMware components on a Domain Controller is not supported.

4. Safe mode is not supported for Veeam MP for VMware services operation.

5. Ops Mgr Agent data is collected only for VMs running Microsoft Windows OS.

**VMware Infrastructure**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESXi Host</td>
<td>• ESXi 4.x, 5.x, 6.x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software</td>
<td>• vCenter 4.x, 5.x, 6.x</td>
</tr>
</tbody>
</table>

**Microsoft System Center Operations Manager**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
</table>
| Ops Mgr       | • Microsoft System Center Operations Manager 2019  
• Microsoft System Center Operations Manager 1807  
• Microsoft System Center Operations Manager 1801  
• Microsoft System Center Operations Manager 2016  
• Microsoft System Center Operations Manager 2012 R2  
• Microsoft System Center Operations Manager 2012 SP1  
  
  **Note:** Make sure that the latest available updates for System Center Operations Manager are installed. |

| Hardware      | Hard disk space: variable storage size (Ops Mgr database) — see the Architecture Overview Guide, section Collection Infrastructure, or the Veeam MP for VMware Sizing Calculator available as a part of the Veeam MP Resource Kit included in the Veeam MP ISO image. |

| Additional Software | Ops Mgr Reporting server and Data Warehouse (optional; required for reporting).  
  
  **Important:** Veeam MP reporting only supports Microsoft SQL Server 2008 SP3, SQL Server 2008 R2 SP2, SQL Server 2012 SP3, SQL Server 2014, SQL Server 2016 and SQL Server 2017 Reporting Services. |
Veeam VMware Collector

Veeam Collector server is a computer that will host Ops Mgr Agent (or Management Server) and the Veeam Collector component. Depending on the size of the VMware infrastructure and the monitoring requirements (for example, high-availability), more than one Collector server may be required. For details, see the Architecture Overview Guide.

The Collector component may be installed on a standard Ops Mgr Agent in Proxy mode. However maximum scalability and performance will be obtained by installing the Veeam Collector on an Ops Mgr Management Server. Depending on the size of the monitored VMware environment, Management Server(s) dedicated to the Collector role may be required.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td><strong>Memory:</strong></td>
</tr>
<tr>
<td></td>
<td>• 4GB minimum recommended.</td>
</tr>
<tr>
<td></td>
<td>• To achieve maximum scalability and performance, x64 OS with 6GB RAM is recommended.</td>
</tr>
<tr>
<td></td>
<td><strong>Hard disk space:</strong></td>
</tr>
<tr>
<td></td>
<td>• Minimum 2GB — required for .NET Framework installation, binaries and logfiles.</td>
</tr>
<tr>
<td></td>
<td><strong>Processor:</strong></td>
</tr>
<tr>
<td></td>
<td>• 4 x 2GHz minimum recommended.</td>
</tr>
<tr>
<td>OS</td>
<td>• Microsoft Windows Server 2019</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2016</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2012 R2</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2012</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2008 R2 SP1</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> All current operating system security updates and patches must be installed.</td>
</tr>
<tr>
<td>Additional Software</td>
<td>Microsoft .NET Framework 4.0 or later</td>
</tr>
</tbody>
</table>
Veeam Virtualization Extensions Service

VE Service manages connections to VMware systems and the Veeam Collector(s), controlling licensing, load balancing, and high availability. If Veeam VMware Collector auto-deployment functionality is configured, VE Service is also responsible for deploying Collector installer objects onto Management Servers in the corresponding resource pool.

NOTES:
1. VE Service must be installed on an Ops Mgr Management Server.
2. All instances of VE Service must have Enterprise Plus license in order to unlock full functionality of the Enterprise Plus Edition.
   For further information on Veeam MP licensing, see FAQs on Veeam Management Pack for System Center.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td><strong>Hard disk space</strong>: minimum 2GB — required for .NET Framework installation, binaries and logfiles.</td>
</tr>
<tr>
<td></td>
<td><strong>Memory and Processor</strong>: processor architecture must be x64.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong>: VE Service does not perform heavy-load data processing. The minimum hardware requirement for an Ops Mgr Management Server will support VE Service with no significant additional load generated.</td>
</tr>
<tr>
<td>OS</td>
<td>• Microsoft Windows Server 2019</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2016</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2012 R2</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2012</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Windows Server 2008 R2 SP1</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong>: All current operating system security updates and patches must be installed.</td>
</tr>
<tr>
<td>Additional Software</td>
<td>• Operations Manager Management Server</td>
</tr>
<tr>
<td></td>
<td>• Windows Remote Management must be enabled for the Management Server</td>
</tr>
<tr>
<td></td>
<td>• Microsoft .NET Framework 4.0 or later</td>
</tr>
<tr>
<td></td>
<td>• Windows PowerShell 2.0 or later — required for Veeam Virtualization Extensions Shell</td>
</tr>
</tbody>
</table>
## Veeam Virtualization Extensions UI

The Veeam Virtualization Extensions User Interface is an IIS-based web application that allows authorized users to access the VE Service, and configure VMware connections, Veeam Collector settings and so on. The UI can be installed together with the VE Service, or on a separate machine.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td><strong>Hard disk space</strong>: minimum 2GB — required for .NET Framework installation, binaries and logfiles.</td>
</tr>
</tbody>
</table>
| OS                | • Microsoft Windows Server 2019  
• Microsoft Windows Server 2016  
• Microsoft Windows Server 2012 R2  
• Microsoft Windows Server 2012  
• Microsoft Windows Server 2008 R2 SP1  

**Note**: All current operating system security updates and patches must be installed.

| Additional Software | • Microsoft Internet Information Services 7.0 or later (IIS with required features is installed as part of Veeam Virtualization Extensions UI installation)  
• Microsoft .NET Framework 4.0 or later  
• Internet Explorer 8 or later  
• Mozilla Firefox 23.0.1 or later |

| Not Supported      | Installing the Veeam Virtualization Extensions UI on a vCenter Server is **NOT supported** due to conflicts between the IIS requirement for Veeam Virtualization Extensions UI and the embedded web server used by vCenter Server. |
Security Considerations

When installing Veeam MP for VMware, you should take into account security considerations described in this section:

- Network Protocols and Ports
- Accounts and Privileges

Network Protocols and Ports

Data flows are shown in the architecture diagram in the Architecture Overview Guide. Connectivity is generally required between all Veeam MP for VMware components, and between Veeam MP for VMware components and vCenter Server. For considerations on using each method, refer to the Architecture Overview Guide. Typical connection settings are described below.

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Protocol</th>
<th>Port</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veeam Collector</td>
<td>vCenter</td>
<td>HTTPS</td>
<td>443</td>
<td>Required for Veeam Collector to gather monitoring data. To check the current API port open in vCenter, see the VMware documentation.</td>
</tr>
<tr>
<td>VE Service</td>
<td>vCenter</td>
<td>HTTPS</td>
<td>443</td>
<td>Required to connect to vCenter from the Veeam UI.</td>
</tr>
<tr>
<td>Veeam Collector</td>
<td>VE Service</td>
<td>Secured TCP</td>
<td>8084</td>
<td>Required for VE Service to authenticate the Collectors, receive heartbeats, and to distribute licenses and other configuration. (port number can be chosen during setup).</td>
</tr>
<tr>
<td>Veeam UI</td>
<td>VE Service</td>
<td>Secured TCP</td>
<td>8084</td>
<td>Required for communications between VE Service and Veeam UI (port number can be chosen during setup).</td>
</tr>
<tr>
<td>Workstation Web browser</td>
<td>Veeam UI</td>
<td>HTTP</td>
<td>4430</td>
<td>Required to use Veeam UI from remote web browser (port number can be chosen during setup).</td>
</tr>
<tr>
<td>Veeam Collector</td>
<td>ESXi host</td>
<td>HTTPS</td>
<td>443</td>
<td>This port is optional; use it only if you need to connect the Collector directly to a vSphere host (see the Architecture Overview Guide).</td>
</tr>
<tr>
<td>VE Service</td>
<td>ESXi host</td>
<td>HTTPS</td>
<td>443</td>
<td>This port is optional; use it only if you need to connect VE Service directly to a vSphere host (see the Architecture Overview Guide).</td>
</tr>
<tr>
<td>Veeam Collector</td>
<td>ESXi host</td>
<td>UDP</td>
<td>514</td>
<td>This port is optional; use it only if Syslog is required. To allow outgoing syslog traffic, open this port on the ESXi host firewall.</td>
</tr>
</tbody>
</table>

Also make sure MTU settings on all ESXi hosts match MTU settings on the network hardware. Otherwise, VE Service and Veeam Collectors may not be able to correctly connect to the hosts.

If you want to monitor state of host hardware sensors using the CIM-XML method, follow the instructions in the
Veeam MP for System Center Resource Kit Guide, *Veeam VMware Advanced ESXi Hardware Monitoring (CIM-based)* section, and open port **5989**:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Protocol</th>
<th>Port</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veeam Collector</td>
<td>ESXi host</td>
<td>HTTP</td>
<td>5989</td>
<td>Required for gathering of SMASH hardware sensors via CIM-XML. Connection through proxy server is not supported, this must be a direct connection.</td>
</tr>
</tbody>
</table>

In addition, the following types of communication are used between the VE Service and Collector:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Communication Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>VE Service</td>
<td>Veeam Collector</td>
<td>Windows share</td>
<td>This communication type is used to create log bundle for the Veeam support, if required. Read permissions should be available.</td>
</tr>
<tr>
<td>VE Service</td>
<td>Veeam Collector</td>
<td>RPC</td>
<td>RPC is used for the remote control of the Collector service (start/stop/restart).</td>
</tr>
</tbody>
</table>
Accounts and Privileges

Ops Mgr Agent Operation

The Ops Mgr agent action account must have the Administrator permissions on the server where the Veeam MP for VMware component (Collector, VE Service) runs. To be able to monitor Veeam Backup & Replication infrastructure, you must assign the Veeam Backup Administrator role to this account as well. For more information on how to assign roles in Veeam Backup & Replication, see the Veeam Backup & Replication User Guide for VMware vSphere, section Roles and Users.

Connection to VMware vCenter

The account used to connect to VMware systems must have at minimum Read-only privilege.

Gathering vSphere Datastore Data

To be able to run the Scan Datastore for Unknown Files task, you must assign the Browse datastore privilege to the account, and make sure that the Create and Update task permissions are enabled.

To assign the privilege to the user role, edit the following role settings:

1. Go to All Privileges > Datastore and enable Browse datastore.
2. Go to All Privileges > Tasks, and enable Create task and Update task.
To create the appropriate user role and assign specific permissions, use the vSphere Client, as described in VMware documentation.

Access should be provided to the complete vSphere hierarchy and not only to specific objects. Using No Access or otherwise restricted permissions to any part of the vCenter hierarchy to configure monitoring visibility is not supported. To define which vSphere clusters and hosts are monitored, use the Veeam UI and check/uncheck clusters and hosts as required.

**NOTE:**

If MP Tasks in the context of virtual machine are required, the VMware connection account must be assigned the required elevated privileges to run the task (Power On/Off VM and so on).

### Veeam Virtualization Extensions Service Account

The account under which the VE Service runs must be a member of the *Veeam Virtualization Extensions Users* local group and have **Administrator** rights.

### Veeam VMware Collector Service Account

The Veeam VMware Collector service account must be:

- An administrative account on the server where the Veeam VMware Collector service runs.
- A member of the *Veeam Virtualization Extensions Users* local group on the server running VE Service.

### Connection to Veeam UI

To access the Veeam UI (for addition/removal of vCenter connections, configuring Veeam Collector settings and so on), users must be included in the local group named *Veeam Virtualization Extensions Users*. This local group is created during VE Service installation.

### Collector Auto-Deployment Run As Account

The account in the *Veeam VMware Collector Auto-Deployment Run As Profile* must be:

- At minimum **OpsManager Advanced Operator** on Management Servers that will host Veeam Collectors.
- Local **Administrator** on Management Server where the VE Service runs.

The account must also be a member of the *Veeam Virtualization Extensions Users* local group on the server where the VE Service runs.
Installing Veeam MP for VMware

You can install Veeam MP for VMware components using various installation scenarios. Three of the back-end components (VE Service, Veeam UI and Collector) may be installed on separate servers. However the most common scenario is for one server to be installed with all three components, and additional Collector-only servers to be installed as and if required.

This section will detail the installation steps required for the most common scenarios:

- **Veeam MP Auto-Deployment installation scenario** is suitable for large environments with several Management Servers. It allows you to install Veeam MP for VMware back-end components on a single Management Server and automatically deploy Collectors on other Management Servers.
  
  For details, see Veeam MP Auto-Deployment.

- **Single-server installation scenario** is the most suitable scenario for evaluation and proof of concept for Veeam MP for VMware. It allows you to install all Veeam MP for VMware back-end components on a single Management Server. This scenario offers a simplified installation procedure using the unified installer, and is suitable for environments of up to approximately 100 vSphere hosts.
  
  For details, see Single-Server Installation.

- **Collector-only installation scenario** provides details on how to install the Veeam VMware Collector service only. This scenario has a pre-requisite of VE Service and Veeam UI already installed on another server.
  
  For details, see Collector-Only Installation.

Before You Begin

Before you begin installation, take the following steps:

1. Make sure that your environment meets the prerequisite conditions described in section System Requirements.

2. Download the Veeam MP for VMware product installation VES_8.0 Update 6.iso file from the Veeam downloads page. You can burn the downloaded .iso image file to a CD/DVD or mount the installation image to the target machine using disk image emulation software.
Veeam MP Auto-Deployment

Auto-deployment installation scenario is suitable for large environments with several Ops Mgr Management Servers. It allows you to automatically deploy Veeam VMware Collectors on chosen Management Servers.

**IMPORTANT!**
To enable successful installation of Veeam Collectors, check that local security policies do not prevent program installation for the Default Action Account on the Management Servers.

To automate deployment of Collectors, you can create a resource pool with Management Servers that will host Collectors, and choose this pool during setup. Veeam VMware Collector components will be installed automatically on all Management Servers in the chosen resource pool.

**IMPORTANT!**
For Collector auto-deployment, Veeam MP Enterprise Plus license is required

This section describes a simple auto-deployment scenario where:

- VE Service, Veeam UI and Veeam Management Packs are installed on one Management Server.
- Veeam VMware Collectors are deployed on Management Servers in a resource pool.

To deploy the Veeam MP for VMware, follow these steps:

1. Create a resource pool with Management Servers that will host Veeam Collectors.
2. Configure Management Servers to allow Proxying.
3. Install VE Service and Veeam UI, and import Veeam management packs.
4. Configure the Veeam VMware Collector Auto-Deployment Run-As profile.

After completing these steps, you can customize and tune the Veeam MP for VMware for your particular monitoring requirements. To accomplish this, see the Operations Guide.

**NOTE:**
In the described scenario, all Veeam MP components are installed on the same Management Server, and Veeam management packs are imported automatically during setup.

However, you can change this scenario to install Veeam UI on a separate machine, or import Veeam management packs manually.
Step 1. Create Resource Pool for Veeam Collectors

When the Ops Mgr is installed, three default resource pools are created: **All Management Servers Resource Pool**, **Notifications Resource Pool**, and **AD Assignment Resource Pool**. All Management Servers in your infrastructure automatically become members of these resource pools.

To run Veeam Collector auto-deployment, you can:

- Use the default **All Management Servers Resource Pool** to install Veeam Collectors on all Management Servers.
- Create a new resource pool and add to this pool Management Servers that will host Veeam Collectors.

For details on creating and managing resource pools in the Ops Mgr, see Microsoft technical documentation.

**NOTE:**

Be careful when choosing a Management Server Resource Pool for Veeam Collector auto-deployment. After installation, the resource pool cannot be changed easily. Such configuration changes will require re-installation of the VE Service.

It is also recommended not to use the default resource pools because further configuration and uninstall procedures will require some additional manual steps that cannot be performed automatically. For details, see Uninstalling the Solution.

Check that Management Servers in the chosen resource pool meet Veeam VMware Collector requirements.
Step 2. Configure Proxy Settings

Management Servers that host Veeam Collectors must be granted the privilege to insert new objects into the Ops Mgr as the VMware topology is discovered. This is known as *Proxying*.

To grant this privilege, do the following.

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the **Administration** pane.
3. Select the **Device Management > Management Servers** node.
4. In the right pane, double-click the Management Server to open the **Management Server Properties** dialog.
5. Go to the **Security** tab and make sure the **Allow this server to act as a proxy and discover managed objects on other computers** check box is selected:

   ![Management Server Properties](image)

   6. Click **OK**. Allow several minutes for the setting change to propagate through the system.
Step 3. Install VE Service and Veeam UI, and Import Management Packs

Install VE Service, Veeam UI, and import Veeam management packs:

1. Log on to a Management Server using an account with local Administrator rights.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with Veeam Management Pack installation options.
   On the install menu of the splash screen, click Veeam Management Pack Suite.
3. Click **Next** to start the installation.

4. Read and accept the license agreement. If you reject the agreement, you will not be able to continue installation.
5. Click **Browse** to locate the .lic file supplied to you by Veeam. You will not be able to continue installation without providing a license.

6. Choose components to install. If necessary, you can change the installation directory.
7. Choose the Collector deployment type.

This scenario implies that the Veeam VMware Collector Auto-Deployment feature is used to automatically deploy Veeam Collectors on Management Servers. Click **Autodeploy (Managed by SCOM)** to proceed.

8. Choose a Management Server resource pool and click **Next**.
9. Perform the system configuration check.

Before proceeding with the installation, the installer will check whether all prerequisite software is available on the target system. If some of the required software components are missing, the wizard will offer to install missing software automatically. To do that, click **Install**.

When all required software is installed, click **Re-run** to repeat verification.
10. Specify the TCP port that will be used by the VE Service and the port for connection with the UI website. Default ports are:

- **8084** for Veeam Virtualization Extensions Service
- **4430** for connection with the UI website

11. Enter credentials of the account under which the VE Service will run. For the account requirements, see Accounts and Privileges.

   The user name should be specified in the **DOMAIN\USERNAME** format.
12. Review installation configuration. Click **Install** to begin installation.

The setup will install Veeam MP components and import Veeam management packs to the Management Server.

When installation completes, perform the logoff/logon procedure to create the *Veeam Virtualization Extensions Users* local group that will be used to accommodate service account. Also add any other accounts to this group for users who will need to access the Veeam UI to configure VMware monitoring.

**NOTE:**

Keep in mind that MP deployment continues even after all Management Packs are imported: reports are deployed to the Ops Mgr reporting server; SQL Server stored procedures required for widgets are deployed in the background.

This process might take several hours depending on the Ops Mgr infrastructure performance. During this period, some widgets may not function, and reports may not be visible in the Ops Mgr console.
Step 4. Configure Veeam VMware Collector Auto-Deployment Run As Profile

The **Veeam VMware Collector Auto-Deployment Run As Profile** is required to automatically deploy Veeam VMware Collector components on Management Servers.

To configure the **Veeam VMware Collector Auto-Deployment Run As Profile**:

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the **Administration** section.
3. Expand the **Run As Configuration** node and select **Profiles**.
4. In the list of profiles, double-click the **Veeam VMware Collector Auto-Deployment Run As Profile**.
5. Click **Next** to start the **Run As Profile Wizard**.
6. At the **Run As Accounts** step, click **Add**.
7. In the **Add a Run As Account** window, click **New** and follow the **Create Run As Account Wizard** to create a new Run As account:
   a. At the **General Properties** step, choose **Windows** as the account type. Specify the account display name and description.
   b. At the **Credentials** step, specify user name and password that will be used for auto-deployment.

**NOTE:**

You can create several Run As accounts, but only the first one will be used for auto-deployment. For this reason, the specified credentials must be the same for ALL Management Servers. For the account requirements, see **Accounts and Privileges**.

At the **Distribution Security** step, choose the necessary distribution security level. If you choose the **More secure** level, you will need to manually distribute the account credentials to Management Servers that will host Veeam Collectors and to the Management Server where VE Service runs.

   c. Click **Create** to save the account.
   d. Click **Save** to save the profile.

To distribute the account credentials to Management Servers that will host Veeam Collectors and to the Management Server where the VE Service runs:

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the **Administration** section.
3. Expand the **Run As Configuration** node and select **Accounts**.
4. Double-click the created Run As account.
5. In the **Run As Account Properties** window, open the **Distribution** tab.
6. Click **Add**, search and add Management Servers that will host Veeam Collectors and the Management Server where the VE Service runs.
Single-Server Installation

In the single-server installation scenario, the following Veeam MP for VMware components are installed on a single Management Server:

- Veeam Virtualization Extensions Service
- Veeam Virtualization Extensions UI
- Veeam VMware Collector

To deploy the Veeam MP for VMware, follow these steps:

1. **Configure the Management Server to allow Proxying.**
2. **Install VE Service, Veeam UI, Veeam VMware Collector and import Veeam management packs using the unified installer.**

The Veeam UI will make recommendations for the number of Veeam Collector servers required, when you connect to your vCenter Server. If your infrastructure requires more than one Collector server, you can install additional instances of the Veeam Collector component to distribute the monitoring load and allow high-availability monitoring. To do that, perform the steps described in *Collector-Only Installation* on additional servers.

After completing the above steps, you can customize and tune the Veeam MP for VMware for your particular monitoring requirements. To accomplish this, see the *Operations Guide*. 
Step 1. Configure Proxy Settings

Management Server that hosts Veeam Collector must be granted the privilege to insert new objects into the Ops Mgr as the VMware topology is discovered. This is known as Proxying.

To grant this privilege, do the following.

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the Administration pane.
4. In the right pane, double-click the Management Server to open the Management Server Properties dialog.
5. Go to the Security tab and make sure the **Allow this server to act as a proxy and discover managed objects on other computers** check box is selected:

   ![Management Server Properties dialog](image)

6. Click OK. Allow several minutes for the setting change to propagate through the system.
Step 2. Install VE Service, Veeam UI, Veeam VMware Collector and Import Veeam Management Packs

To install VE Service, Veeam UI, Veeam VMware Collector and import Veeam management packs:

1. Log on to the Management Server using an account with local Administrator rights.

2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with Veeam Management Pack installation options.

   On the install menu of the splash screen, click Veeam Management Pack Suite.
3. Click **Next** to start the installation.

4. Read and accept the license agreement. If you reject the agreement, you will not be able to continue installation.
5. Click **Browse** to locate the .lic file supplied to you by Veeam. You will not be able to continue installation without providing a license.

6. Choose components to install. If necessary, you can change the installation directory.
7. Select the Collector deployment type.

This scenario implies that the Collector component is installed with other Veeam MP components on a single Management Server. Click **Manual** to proceed.

![Manual Option]

8. Perform a system configuration check.

Before proceeding with the installation, the installer will check whether all prerequisite software is available on the target system. If some of the required software components are missing, the wizard will offer to install missing software automatically. To do that, click **Install**.

![System Configuration Check]

- Microsoft IIS: Failed
- ASP.NET 4.5 Component: Failed
- Default Document Component: Failed
- ISAPI Extensions Component: Failed
- ISAPI Filters Component: Failed
- .NET Extensibility 4.5 Component: Failed
- Request Filtering Component: Failed
- Static Content Component: Failed

If your computer does not meet minimum requirements, click the "Install" button to deploy missing features.
When all required software is installed, click **Re-run** to repeat verification.

9. Specify the TCP port that will be used by the VE Service and the port for connection with the UI website. Default ports are:
   - **8084** for *Veeam Virtualization Extensions* service
   - **4430** for connection with the UI website
10. Enter credentials of the account under which the VE Service will run. For the account requirements, see Accounts and Privileges.

The user name should be specified in the DOMAIN\USERNAME format.

If you want the Veeam VMware Collector Service to run under the same account as the VE Service, select the **Use the same account for Veeam VMware Collector service** check box.

If you want the Veeam VMware Collector Service to run under the account that differs from the VE Service account, clear the **Use the same account for Veeam VMware Collector service** check box. In this case, you will need to specify the credentials for the Veeam VMware Collector service at a separate step of the wizard.

11. This step applies only if you have not selected the **Use the same account for Veeam VMware Collector service** check box at the Veeam Virtualization Extensions service credentials step of the setup wizard.

Enter credentials of the account under which the Veeam VMware Collector Service will run. For the account requirements, see Accounts and Privileges.

The user name should be specified in the DOMAIN\USERNAME format.
12. Review installation configuration. Click **Install** to begin installation.

When installation completes, perform the logoff/logon procedure to create the *Veeam Virtualization Extensions Users* local group that will be used to accommodate service account. Also add any other accounts to this group for users who will need to access the Veeam UI to configure VMware monitoring.

**NOTE:**

Keep in mind that MP deployment continues even after all Management Packs are imported: reports are deployed to the Ops Mgr reporting server; SQL Server stored procedures required for widgets are deployed in the background.

This process might take several hours depending on the Ops Mgr infrastructure performance. During this period, some widgets may not function, and reports may not be visible in the Ops Mgr console.
Collector-Only Installation

This section includes instructions for installing additional Collector-only systems. In larger environments several Collector servers may be required. These multiple Collectors can communicate with the same Veeam Extensions Service installed in the previous section, and will all be managed in the single Veeam UI.

Install additional Collector(s) using the following steps:

1. **Deploy Ops Mgr agents to the servers destined to host Veeam Collectors.**
2. **Configure agents to allow Proxying.**
3. **Install Veeam VMware Collector.**

Step 1. Deploy Ops Mgr Agents

Install Ops Mgr agents on the servers that will host Veeam VMware Collectors.

Note that if an Ops Mgr Management Server will be used for the Collector role, then no agent need be deployed, as the Management Server already includes the agent functionality.

**TIP:**

You can also deploy a fully-managed Ops Mgr agent to the vCenter Server(s). This is optional, as Veeam Collectors use agentless methods to gather data from vCenter. However it is highly recommended, as additional monitoring data will be leveraged from that agent (for example, core services status and application log data concerning vCenter Server).
Step 2. Configure Proxy Settings

Ops Mgr agents running on Veeam Collector servers must be granted the privilege to insert new objects into Ops Mgr as the VMware topology is discovered. This is known as *Proxying*. Note that Proxy should also be applied if the Collector is running on an Ops Mgr Management server.

To grant this privilege, do the following.

Configure Proxy Settings for an Agent

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the **Administration** pane.
3. Select the **Device Management** > **Agent Managed** node.
4. In the right pane, for each Collector server in the list, double-click it to open **Agent Properties** dialog.
5. Go to the **Security** tab and make sure the **Allow this agent to act as a proxy and discover managed objects on other computers** check box is selected:

![Agent Properties dialog](image)

6. Click **OK**. Allow several minutes for the setting change to propagate through the system.
Configure Proxy Settings for a Management Server

Proxy should also be enabled for Management Servers, if the Veeam Collector is installed there. To enable Proxy for a Management Server:

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the Administration pane.
4. In the right pane, double-click the Management Server to open the Management Server Properties dialog.
5. Go to the Security tab and make sure the Allow this server to act as a proxy and discover managed objects on other computers check box is selected:

6. Click OK. Allow several minutes for the setting change to propagate through the system.
Step 3. Install Veeam VMware Collector

To install Veeam VMware Collector:

1. Log on to the server using an account with local Administrator rights.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with VE Service installation options.
   On the install menu of the splash screen, click Veeam VMware Collector.
3. Click Next to start the installation.
4. Read and accept the license agreement. If you reject the agreement, you will not be able to continue installation.

5. If necessary, you can change the installation directory set by default.
6. Enter credentials of the account under which the Veeam VMware Collector service will run. The account must be both:

- An administrative account on the Collector server
- A member of the Veeam Virtualization Extensions Users local group on the server running Veeam Virtualization Extensions service.

![Veeam VMware Collector Setup](image)

7. Enter the name of the server running VE Service and specify the port for connection with VE Service. This must be the port that you specified during VE Service installation (8084 by default).

**IMPORTANT!**

Ensure you have specified the port, which is used to connect to the server running the VE Service, **not the UI**.

![Veeam Virtualization Extensions Information](image)
8. Click **Install** to begin installation.

![Installation Wizard Screen](image-url)

- **Selected components:** Veeam VMware Collector
- **Installation folder:** C:\Program Files\Veeam\Veeam VMware Collector Extensions for System Center
- **VSE name:** OPSMGR201212
- **VSE port:** 8094

Click "Install" to begin the installation.
After You Install

When installation completes, do the following:

1. Update Veeam MP core services to support TLS 1.2 protocol.
2. Configure a Run As profile for vCenter Connection Failover.
3. Confirm the VE Service and Veeam UI installation.

Update Veeam MP Core Services to Support TLS 1.2 Protocol

NOTE:
The described procedure applies only to Veeam Virtualization Extensions Service and Veeam VMware Collectors version 8.0.

Starting with vSphere 6.5, the TLS protocol version 1.2 is enabled by default. To allow Veeam Virtualization Extensions Service and Veeam VMware Collectors to connect to vCenter Servers that use the TLS 1.2 protocol, you must update Veeam MP core services on the machine that runs the Veeam Virtualization Extensions Service and on all machines that run Veeam VMware Collector services:

1. Insert the installation disc into the CD/DVD drive or mount the installation image.
2. Navigate to the <installation media>\Update folder.
3. Launch VeeamMP80_Update5_Patch1.exe.
4. Click Next to start the installation.
TIP:
You will not be able to proceed to the Veeam MP patch installation process if Microsoft .NET Framework 4.5 is not installed. Download Microsoft .NET Framework 4.5 from the Microsoft website: https://www.microsoft.com/en-us/download/details.aspx?id=30653, and install it following the instructions provided by Microsoft.

5. Click **Install** and wait for the update installation process to complete.
Configure Run As Profile for vCenter Connection Failover

**NOTE:**

Skip this step if you are not planning to use the vCenter Connection Failover feature or if you have the Enterprise license edition (Enterprise Plus edition is required for vCenter connection failover).

After you install the Veeam MP for VMware components, the *Veeam VMware Collector: vCenter connection failover errors and warnings* alert will be fired in the Ops Mgr console:

The *Veeam VMware Direct ESX(i) Connection Account* is required for the *vCenter Connection Failover* feature implemented to allow VMware vSphere hosts and VMs monitoring to continue, even if vCenter Server goes offline. For more details about vCenter Connection Failover, refer to the *Operations Guide*, section *vCenter Connection Failover*.

To configure the *Veeam VMware Direct ESX(i) Connection Account*:

1. Open the Ops Mgr console using the account with administrative rights.
2. Go to the **Administration** section.
3. Expand the **Run As Configuration** node and select **Profiles**.
4. In the list of profiles, double-click the inbuilt *Veeam VMware Direct ESX(i) Connection Account*.
5. Click **Next** to begin the **Run As Profile Wizard**.
6. At the **Add Run As Accounts** step, click **Add**.
7. In the **Add a Run As Account** window, click **New** and follow the **Create Run As Account Wizard** to create a new Run As account:
   a. At the **General Properties** step, choose **Basic Authentication** as the account type. Specify the account display name and description.
b. At the **Credentials** step, specify user name and password that will be used for direct-to-host connections.

**NOTE:**

You can create several Run As accounts, but only the first one will be used for connection to managed vSphere hosts. For this reason, the specified credentials must be the same for ALL vCenter managed ESX(i) hosts in your environment (even hosts in different vCenter Servers).

At the **Distribution Security** step, choose the necessary distribution security level. If you choose the **More secure level**, you will need to manually distribute the account credentials to the machine where the VE Service runs (in case of the single-server installation, this is the machine where all Veeam MP for VMware components are installed).

c. Click **Create** to save the account.

8. Click **Save** to save the profile.

To distribute the specified account credentials to the machine where the VE Service runs:

1. Open the Ops Mgr console using the account with administrative rights. Go to the **Administration** section.
2. Expand the **Run As Configuration** node and select **Accounts**.
3. Double-click the created Run As account.
4. In the **Run As Account Properties** window, open the **Distribution** tab.
5. Click **Add**, search and add the machine where the VE Service runs.

**NOTE:**

The vCenter connection failover script is run under the Agent Action Account for the agent on the Veeam Virtualization Extensions server. For the script to function properly, this Agent Action Account should also be a member of the **Veeam Virtualization Extensions Users** local group on the server.

Please keep in mind that the vCenter connection failover feature will not work if you use Local System as the default Agent Action Account.
Confirm the VE Service and Veeam UI Installation

Confirm installation of the VE Service and Veeam UI:

- In Windows Server 2012 and later, open **Start > All Apps** and find **Veeam Management Pack for System Center**.
- In earlier Windows versions, open **Start > All Programs > Veeam > Veeam Management Pack for System Center**.

The web interface should open in the default browser. Enter valid credentials and you will see the Veeam UI as shown below.

During the installation, setup registers the Veeam Collector components with VE Service. The Collectors will be visible in the UI, and new application logs called **Veeam Collector** and **Veeam VMware** will be created when the **Veeam VMware Collector service** starts.

Open the **Veeam Collectors** tab to move to the page, where each Collector will be shown under the **Veeam Collectors** tree. In the screenshot below, three Collector servers have been installed and registered in the VE Service.
Open the **VMware Servers** tab and create connections to VMware servers. To add VMware systems for monitoring and to customize the default Veeam settings, see the Operations Guide.
Upgrading Veeam MP for VMware

Upgrade to Veeam Management Pack 8.0 for VMware is supported from Veeam Management Pack versions 6.0, 6.5, 7.0 and 7.0 R2.

NOTE:
Starting from version 7.0, Veeam MP for VMware no longer supports System Center 2007 R2 Operations Manager. To learn how to move Veeam MP to System Center 2012 or 2012 R2 Operations Manager, see Appendix B.

Upgrading from Veeam MP 6.x to Veeam MP 8.0

Before you upgrade, make sure the following accounts have appropriate privileges — local Administrator rights:

- The account(s) under which the setups will be launched
- The account under which VE Service will run
- The account under which Veeam VMware Collector service will run

Make sure that the Veeam UI is closed.

To preserve the existing configuration, if possible install the new components on the same servers where the previous version of the product runs.

To upgrade from Veeam MP 6.x to Veeam MP 8.0:

1. Upgrade VE Service, Veeam UI and Veeam VMware Collector.
2. Upgrade additional Veeam VMware Collectors.
3. Import management packs for 8.0.
4. Delete obsolete override MPs.
Step 1. Upgrade VE Service, Veeam UI and Veeam VMware Collector

Starting from version 7.0, VE Service installation is supported only on Ops Mgr Management Servers. For this reason, the upgrade procedure will depend on location of the VE Service.

Upgrading Veeam MP on a Management Server

In case the previous version of Veeam Management Pack was installed on a Management Server, take the following steps to upgrade VE Service, Veeam UI and Veeam VMware Collector:

1. Log on to the Management Server where the VE Service, Veeam UI and Veeam VMware Collector components are installed.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with installation options.
4. The setup will detect Veeam MP for VMware components installed on the server. Review the components to upgrade, click Next and follow the setup wizard.

Re-Installing Veeam MP

In case the previous version of Veeam Management Pack was installed on a machine that does not run the Management Server role, take the following steps to upgrade VE Service, Veeam UI and Veeam VMware Collector:

1. Log on to the machine where the VE Service, Veeam UI and Veeam VMware Collector components are installed.
2. Uninstall the Veeam MP components as described in section Uninstalling the Solution.
3. Install Veeam MP for VMware on a Management Server as described in section Installing Veeam MP for VMware.

NOTE:

If you have additional Veeam VMware Collectors, uninstall them as described in section Uninstalling the Solution and then install again as described in section Collector-Only Installation. During installation, specify the name of the Management Server running the new VE Service.
Step 2. Upgrade Additional Veeam VMware Collectors

For each Collector in your environment that is installed on a VM that does not run the Management Server role, perform the following steps:

1. Log on to the server where the Collector is installed.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with installation options.
3. On the install menu of the splash screen, click Veeam VMware Collector and follow the instructions provided in section Collector-Only Installation.

**NOTE:**
During upgrade, it is strongly recommended not to move monitoring jobs between Collectors of different versions, as this can cause unstable behavior.

You can also run the v8 Collector installation MSI manually with the additional Veeam Virtualization Extensions server name and port parameters as follows:

```
msiexec /i VeeamCollector64.msi VIC_EM_SERVER="ves_name" VIC_EM_SERVER_PORT="ves_port"
```

After you upgrade Collectors, the VMware topology will be discovered only in 24 hours. However, you can speed up the discovery process by running the Rebuild Topology task in the Veeam UI. For details, see the Operations Guide.
Step 3. Import Management Packs for 8.0

After you have upgraded all components — VE Service, Veeam UI and Veeam Collector(s) — import Veeam MPs. Veeam MP includes the following management packs: Veeam MP, Backup MP and Library MP.

- The Library MP is a common management pack on which other packs are dependent.
- The Backup MP integrates Veeam Backup & Replication infrastructure, services and jobs into Microsoft System Center Operations Manager.

**NOTE:**

It is highly recommended to deploy both the MP for Veeam Backup & Replication and the Veeam MP for VMware together. However when both MPs are present, there are interactions which require tuning. For more information, see the MP for Veeam Backup & Replication User Guide.

For detailed instructions about importing a management pack, see the Microsoft article How to Import an Operations Manager Management Pack (System Center 2012).

1. Log on to Ops Mgr console using an account that has Administrator rights.
2. Click Administration in the bottom left of the console.
3. In the Administration section, right-click the Management Packs node and select Import Management Packs.
4. Browse to the <installation media>|SCOM 2012 MPs installation folder.
   You can quickly navigate to the folder using the Import MPs Manually (browse) option on the Veeam Management Pack splash screen.
   Select all management packs in the VMware MP and Backup MP folders.
   You will also need to import these Veeam management packs and bundles:
   - Veeam.Report.Library.mp
   - Veeam.Virt.Extensions.CapacityPlanningforHybridClouds.Reports.mp
   - Veeam.Virt.Extensions.VMware.BaseDiscovery.mpb
   - Veeam.Visualization.Library.mpb.
Ops Mgr will show the following security warning regarding the *Veeam Virtualization Extensions VMware Integration* management pack.

The *Veeam Virtualization Extensions VMware Integration* management pack contains rules with write actions that run on the Ops Mgr Management Server. The actions include PowerShell scripts used for creating associations between objects and maintenance mode synchronization. Click **OK** to acknowledge the warning.

5. Click **Install**. Check the import dialog for any errors.

**NOTE:**

Keep in mind that MP deployment continues even after all Management Packs are imported: reports are deployed to the Ops Mgr reporting server; SQL Server stored procedures required for widgets are deployed in the background.

This process might take several hours depending on the Ops Mgr infrastructure performance. During this period, some widgets may not function, and reports may not be visible in the Ops Mgr console.

After you import Veeam management packs, Veeam MP for VMware will check registry values for the Ops Mgr Health Service. If the values do not match the recommended configuration, the **Veeam VMware Collector: Health Service recommended configuration monitor** will fire an alert that triggers the **Configure Health Service** task. The task automatically adjusts registry configuration settings for the Health Service on Collectors to maximize efficiency when processing large data volumes.
NOTE:

The **Configure Health Service** task will not run automatically for Health Service on the Management Server. To update the Health Service registry values on the Management Server, you will need to run the task manually. For details, see Running Configure Health Service Task on Management Server.

Running Configure Health Service Task on Management Server

To run the **Configure Health Service** task, do the following:

1. In the **Monitoring** view, open the Collector state view:
   - For Ops Mgr 2007 R2, expand the **Veeam for VMware > _Veeam Collectors** node
   - For Ops Mgr 2012 and 2012 R2, expand the **Veeam for VMware > Veeam Collectors > _Veeam Collectors** node

   After discovery of Collector(s) applications is complete in Ops Mgr, you will see the **_Veeam Collectors** state view populated with the Collectors.

2. In the **Actions** pane, select a Collector.

3. Expand **Veeam VMware Collector Service Tasks** and click the **Configure Health Service** task (outlined in red below).
Step 4. Delete Obsolete Override MPs

Delete obsolete override MPs that are no longer present in Veeam MP v8.

1. In the Ops Mgr console, go to the **Administration** section.
2. Select the **Management Packs** node.
3. Right-click **Veeam Overrides for Veeam Backup environment** and choose **Delete**. Applies only to Veeam MP version 6.5.
4. Right-click **Veeam Required Health Service Overrides** and choose **Delete**.
Upgrading from Veeam MP 7.0 and 7.0 R2 to Veeam MP 8.0

To upgrade from Veeam MP 7.0 and 7.0 R2 to Veeam MP 8.0:

1. Upgrade VE Service, Veeam UI and Veeam VMware Collector, and import management packs for 8.0.
2. Upgrade additional Veeam VMware Collectors.

Step 1. Upgrade VE Service, Veeam UI and Veeam VMware Collector, and Import Management Packs for 8.0

In case you installed previous Veeam MP version using the Auto-Deployment feature, all Collectors in the configured Resource Pool will be automatically upgraded as soon as you import new management packs and upgrade Veeam MP components on the Management Server.

1. Log on to the Management Server using an account with local Administrator rights.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with Veeam Management Pack installation options.

On the install menu of the splash screen, click Veeam Management Pack Suite.
3. Click **Next** to start the installation.

4. Read and accept the license agreement. If you reject the agreement, you will not be able to continue installation.
5. Review Veeam MP components installed on the server.

6. Click **Browse** to locate the .lic file supplied to you by Veeam. You will not be able to continue installation without providing a license.
7. Choose management packs to import.

8. Perform a system configuration check.
9. Enter credentials of the account under which the VE Service will run. For the account requirements, see Accounts and Privileges.

The user name should be specified in the `DOMAIN\USERNAME` format.

10. Enter credentials of the account under which the Veeam VMware Collector Service will run. For the account requirements, see Accounts and Privileges.

The user name should be specified in the `DOMAIN\USERNAME` format.

11. Click **Install** to begin installation.
Step 2. Upgrade Additional Veeam VMware Collectors

For each Collector in your environment that is installed on a VM that does not run the Management Server role, perform the following steps:

1. Log on to the server where the Collector is installed.
2. Insert the installation disc into the CD/DVD drive or mount the installation image. The setup will open the splash screen with installation options.
3. On the install menu of the splash screen, click Veeam VMware Collector and follow the instructions provided in section Collector-Only Installation.

**NOTE:**
During upgrade, it is strongly recommended not to move monitoring jobs between Collectors of different versions, as this can cause unstable behavior.

If you want to run Veeam Collector auto-deployment:

1. Create a Resource Pool for Veeam Collectors, as described in section Installing Veeam MP for VMware.
2. Configure Veeam VMware Collector Auto-Deployment Run As profile, as described in section Installing Veeam MP for VMware.
3. Wait one hour for the Collectors to upgrade.

You can also run the v8 Collector installation MSI manually with the additional Veeam Virtualization Extensions server name and port parameters as follows:

```
msiexec /i VeeamCollector64.msi VIC_EM_SERVER="ves_name" VIC_EM_SERVER_PORT="ves_port"
```

After you upgrade Collectors, the VMware topology will be discovered only in 24 hours. However, you can speed up the discovery process by running the Rebuild Topology task in the Veeam UI. For details, see the Operations Guide.
Uninstalling the Solution

The uninstall procedure will depend on whether you installed Veeam MP for VMware following the Auto-Deployment or Single-Server scenario:

- Uninstalling Veeam MP (Auto-Deployment)
- Uninstalling Veeam MP (Single-Server Deployment)

Uninstalling Veeam MP (Auto-Deployment)

In case you used the Collector auto-deployment feature to install Veeam MP for VMware, follow these steps:

1. Uninstall VE Service and Veeam UI.
2. Delete Veeam management packs.

NOTE:
If during Veeam MP auto-deployment you chose one of the default resource pools (All Management Servers Resource Pool, Notifications Resource Pool, or AD Assignment Resource Pool), skip the first step and manually uninstall all Collectors after Veeam MP components are uninstalled.

To learn how you can work around this issue, see www.veeam.com/kb1918

Before You Begin

Before uninstalling the Veeam MP solution, perform these steps:

1. In the Veeam UI, remove vCenter connection(s) to prevent Management Servers from overloading caused by job failovers after Collectors are uninstalled.
2. Delete the resource pool that you created for Management Servers to host Veeam Collectors.
3. Wait for all Collectors to uninstall (this may take up to 8 hours).

Step 1. Uninstall VE Service and Veeam UI

To uninstall VE Service and Veeam UI, perform the following steps:

1. Log on as Administrator to the machine where the VE Service and Veeam UI are installed.
Step 2. Delete Veeam Management Packs

Delete Veeam management packs in the following order.

Deleting Microsoft.SystemCenter.SecureReferenceOverride MP

If you have configured the *Veeam VMware Direct ESX(i) Connection Account* Run As account for vCenter Failover, then Ops Mgr will have created or modified the *Microsoft.SystemCenter.SecureReferenceOverride MP*. To delete the Veeam MPs, it will first be required to remove the dependency created to the Secure Reference MP.

Veeam MP Resource Kit includes the *Remove_Veeam_SecureReference.ps1* script that allows you to automatically clean Veeam MP dependencies from the Secure Reference MP. For details, see the Veeam MP Resource Kit Guide.

**NOTE:**

If you use other third-party MPs that store Run As accounts in the *Microsoft.SystemCenter.SecureReferenceOverride MP*, you might need to manually clean Veeam MP dependencies from the *Microsoft.SystemCenter.SecureReferenceOverride MP*.

To learn how to clean dependencies, see [www.veeam.com/kb1898](http://www.veeam.com/kb1898).

Deleting Management Packs

To delete the imported Veeam management packs, use the Ops Mgr console *Administration* section.

**NOTES:**

1. As with any MP, you must delete the overrides (or the unsealed MP which contains the overrides) before you can delete Veeam MPs.

2. If you have created a dashboard in the Default Management Pack using any of the Veeam MP customizable widgets, you will need to delete the Default Management Pack before you can delete Veeam MPs. For more information on working with Veeam dashboard widgets, see the *Operations Guide*, section *Creating Veeam Dashboard Widgets*.

3. If you have created an Ops Mgr monitor for a custom vCenter Server alarm using any of the Veeam MP predefined monitor types, you will need to delete the monitor before you can delete Veeam MPs. For more information on creating Veeam VMware custom monitors, see the *Operations Guide*, section *Creating Ops Mgr Monitors for Custom vCenter Server Alarms*.

In the **Administration** section, select the **Management Packs** node.

1. Right-click *Veeam VMware Required Overrides* and choose **Delete**.

2. Delete all imported Veeam MPs. Note that there are dependencies between management packs and they must be deleted in a specific order.

Uninstall management packs as follows:

- Veeam VMware High-Granularity MP (if present)
- Veeam VMware Performance History Reports
- Veeam VMware Analysis Reports
• Veeam VMware Capacity Planning Reports
• Veeam Capacity Planning for Hybrid Clouds
• Veeam Backup and Replication Reports
• Veeam VMware Views
• Veeam Widget Library
• Veeam Report Library
• Veeam VMware vCenter Monitoring
• Veeam VMware Monitoring
• Veeam VMware Discovery
• Veeam VMware Integration
• Veeam VMware Library
• Veeam VMware Collector Auto-Deployment
• Veeam VMware Extended Data Collection
• Veeam Backup Views
• Veeam Backup Monitoring
• Veeam Backup Discovery
• Veeam Backup Library
• Veeam Backup Base Discovery
• Veeam Base Discovery

Alternatively, you can use the following PowerShell command to remove all Veeam MPs:

```
Get-SCOMmanagementpack | where{$_.displayname -like "*Veeam*"} | Remove-SCOMManagementPack
```

### Removing Dependencies

If you get an error when attempting to delete Veeam MP regarding Dependencies on other MPs, it is because you have created overrides to rules or monitors in the MP.

If you get an error concerning dependencies and you have no note of the specific overrides you have created for the Veeam MP, use the following procedure to locate and remove them:


2. In the Look For box, type "Veeam", and then press Enter. Now you see all the objects in the Veeam MP that have monitors running against them.

3. For each object where you see monitors (for example, CPU_Total), right-click and select Overrides Summary.

4. If there are any overrides for that object, delete them.

5. Repeat the above steps for all Veeam MP for VMware objects.
6. If you have overridden any rules, you must repeat the above, selecting **Rules** in step 2.

**NOTE:**

You do NOT have to select every single monitor, or rule. Just select the object that the monitors run against, such as **vSphere Host** or **VMGUEST Virtual Machine**. Then you can view the overrides summary for that object, and delete all its overrides at once.

After deleting the MP from the Ops Mgr console as described above, you should see the following event on each Collector server in the Ops Mgr event log:

<table>
<thead>
<tr>
<th>Event Type: Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Source: HealthService</td>
</tr>
<tr>
<td>Event Category: Health Service</td>
</tr>
<tr>
<td>Event ID: 1204</td>
</tr>
<tr>
<td>Description:</td>
</tr>
<tr>
<td>Management Pack with id: &quot;Veeam*&quot;, version:&quot;N.n.nnnn.n&quot; is no longer used by HealthService and will be deleted from cache.</td>
</tr>
</tbody>
</table>

The above is a standard Ops Mgr event and shows that certain management pack has been removed from the local Agent store.
Uninstalling Veeam MP
(Single-Server Deployment)

If you installed Veeam MP components on a single Management Server, follow these steps to remove it:

1. Uninstall VE Service, Veeam UI and Veeam VMware Collector.
2. Delete Veeam management packs.

Step 1. Uninstall VE Service, Veeam UI and Veeam VMware Collector

To uninstall VE Service, Veeam UI and Veeam Collector, perform the following steps:

1. Log on as Administrator to the machine where the Veeam Management Pack solution is installed.

Step 2. Delete Veeam Management Packs

Delete Veeam management packs in the following order.

Deleting Microsoft.SystemCenter.SecureReferenceOverride MP

If you have configured the Veeam VMware Direct ESX(i) Connection Account Run As account for vCenter Failover, then Ops Mgr will have created or modified the Microsoft.SystemCenter.SecureReferenceOverride MP. To delete the Veeam MPs, it will first be required to remove the dependency created to the Secure Reference MP.

Veeam MP Resource Kit includes the Remove_Veeam_SecureReference.ps1 script that allows you to automatically clean Veeam MP dependencies from the Secure Reference MP. For details, see the Veeam MP Resource Kit Guide.

NOTE:

If you use other third-party MPs that store Run As accounts in the Microsoft.SystemCenter.SecureReferenceOverride MP, you might need to manually clean Veeam MP dependencies from the Microsoft.SystemCenter.SecureReferenceOverride MP.

To learn how to clean dependencies, see www.veeam.com/kb1898.
Deleting Management Packs

To delete the imported Veeam management packs, use the Ops Mgr console **Administration** section.

**NOTES:**

1. As with any MP, you must delete the overrides (or the unsealed MP which contains the overrides) before you can delete Veeam MPs.

2. If you have created a dashboard in the Default Management Pack using any of the Veeam MP customizable widgets, you will need to delete the Default Management Pack before you can delete Veeam MPs. For more information on working with Veeam dashboard widgets, see the Operations Guide, section *Creating Veeam Dashboard Widgets*.

3. If you have created an Ops Mgr monitor for a custom vCenter Server alarm using any of the Veeam MP predefined monitor types, you will need to delete the monitor before you can delete Veea m MPs. For more information on creating Veeam VMware custom monitors, see the Operations Guide, section *Creating Ops Mgr Monitors for Custom vCenter Server Alarms*.

In the **Administration** section, select the **Management Packs** node.

1. Right-click **Veeam VMware Required Overrides** and choose **Delete**.

2. Delete all imported Veeam MPs. Note that there are dependencies between management packs and they must be deleted in a specific order.

   Uninstall management packs as follows:
   
   - Veeam VMware High-Granularity MP (if present)
   - Veeam VMware Performance History Reports
   - Veeam VMware Analysis Reports
   - Veeam VMware Capacity Planning Reports
   - Veeam Capacity Planning for Hybrid Clouds
   - Veeam Backup and Replication Reports
   - Veeam VMware Views
   - Veeam Widget Library
   - Veeam Report Library
   - Veeam VMware vCenter Monitoring
   - Veeam VMware Monitoring
   - Veeam VMware Discovery
   - Veeam VMware Integration
   - Veeam VMware Library
   - Veeam VMware Collector Auto-Deployment
   - Veeam VMware Extended Data Collection
   - Veeam Backup Views
   - Veeam Backup Monitoring
Removing Dependencies

If you get an error when attempting to delete Veeam MP regarding Dependencies on other MPs, it is because you have created overrides to rules or monitors in the MP.

If you get an error concerning dependencies and you have no note of the specific overrides you have created for the Veeam MP, use the following procedure to locate and remove them:

2. In the Look For box, type "Veeam", and then press Enter. Now you see all the objects in the Veeam MP that have monitors running against them.
3. For each object where you see monitors (for example, CPU_Total), right-click and select Overrides Summary.
4. If there are any overrides for that object, delete them.
5. Repeat the above steps for all Veeam MP for VMware objects.
6. If you have overridden any rules, you must repeat the above, selecting Rules in step 2.

NOTE:
You do NOT have to select every single monitor, or rule. Just select the object that the monitors run against, such as vSphere Host or VMGUEST Virtual Machine. Then you can view the overrides summary for that object, and delete all its overrides at once.

After deleting the MP from the Ops Mgr console as described above, you should see the following event on each Collector server in the Ops Mgr event log:

Event Type: Information
Event Source: HealthService
Event Category: Health Service
Event ID: 1204
Description: Management Pack with id: "Veeam", version:"N.n.nnnn.n" is no longer used by HealthService and will be deleted from cache.

The above is a standard Ops Mgr event and shows that certain management pack has been removed from the local Agent store.
Appendices

See in this section:

- Appendix A. Unattended Installation
- Appendix B. Upgrading to Microsoft System Center 2012 Operations Manager

Appendix A. Unattended Installation

The Veeam Management Pack for VMware solution can be installed in unattended mode. Installation is launched from the command line and performed without any user interaction.

In unattended mode, the Veeam MP for VMware components must be installed in the following order:

1. Deploy Ops Mgr Agents to:
   - The server(s) destined to be Veeam Collector(s)
   - Optionally, to vCenter Server(s)
2. Configure agents on Collector servers to allow Proxying.
3. Install Veeam Virtualization Extensions Service (unattended mode).
4. Install Veeam Virtualization Extensions UI (unattended mode).
5. Veeam VMware Collector on server(s) with that role (unattended mode).
6. Import Veeam Management Packs into the Ops Mgr.
7. Connect VMware Servers to be monitored in the Veeam Virtualization Extensions UI.

For details on:

- Steps 1 and 2, see Collector-Only Installation.
- Step 5, see Importing Management Packs.
- Step 7, see After You Install.

The following topics describe the setup commands and command-line options for installing VE Service, Veeam UI and Veeam Collector(s) in the unattended mode.

Before You Begin

Download the Veeam MP for VMware product installation VES_8.0 Update 6.iso file. You can burn the downloaded .iso image file to a CD/DVD or mount the installation image to the target machine using disk image emulation software.

Browse the .iso contents — the files that you will need for installation will be located in the following folders:

- `<installation media>/VES/VeeamVES64.msi` — installation packages for installing VE Service
- `<installation media>/UI/UI.msi` — installation package for installing Veeam UI
- `<installation media>/VIC/VeeamCollector64.msi` — installation packages for installing Veeam Collector(s)
To run the Veeam MP for VMware installers, make sure you are logged under an account with local administrative rights. On systems with UAC enabled, run the command prompt as Administrator.

**Veeam Virtualization Extensions Service**

**NOTE:**

VeeamVES64.msi allows you to install VE Service on a machine that does not run the Operations Manager SDK. However, it will not be able to support the following Veeam MP features:

- Collector auto-deployment. For details, see Installing Veeam MP for VMware.
- Hyper-V monitoring. For details, see the Veeam MP for Microsoft Hyper-V User Guide.
- Agent proxy-enabled monitors. For details, see Veeam MP for VMware Reference and Veeam MP for Hyper-V Reference.

Open the command prompt and run the setup file *VeeamVES64.msi* using the following parameters:

```
msiexec.exe [/L*v! "<path_to_log>" /qn /I "<path_to_msi>"
[INSTALLDIR="<path_to_installdir >"]
VES_LICENSE_FILE="<path_to_license_file>"
VES_SERVICE_USER="<Veeam_Virtualization_Extensions_Service_account>"
VES_SERVICE_PASSWORD="<Veeam_Virtualization_Extensions_Service_account_password>"
[VES_SERVER_PORT="< Veeam_Virtualization_Extensions_Service_port>"]
[VES_RES_POOL="<Management_Server_Resource_Pool>"]
```

The following command-line options are used to run the setup file:

<table>
<thead>
<tr>
<th>Option</th>
<th>Parameter</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| /L     | *v! logfile | No       | Creates installation log file with the verbose output. Specify a full path to the log file as the parameter value. Any setup log file created during the previous installation will be cleared. **Example:** /L*v! "C:\ProgramData\Veeam\Setup\Temp\Logs\VESSetup.txt"
<p>| /q     | n         | Yes      | Sets user interface level to &quot;no&quot;. |
| /I     | setup file | Yes      | Installs the Veeam Virtualization Extensions Service component. Specify a full path to the setup file as the parameter value. <strong>Example:</strong> /I &quot;C:\Veeam\VeeamVES64.msi&quot; |</p>
<table>
<thead>
<tr>
<th>Option</th>
<th>Parameter</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTALLDIR</td>
<td>path</td>
<td>No</td>
<td>Installs the component to the specified location.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>INSTALLDIR = &quot;C:\Program Files\Veeam\Manager&quot;</code></td>
</tr>
<tr>
<td>VES_LICENSE_FILE</td>
<td>path</td>
<td>Yes</td>
<td>Specify the full path to the license file.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VES_LICENSE_FILE = &quot;C:\Veeam\License\veeam_mp.lic&quot;</code></td>
</tr>
<tr>
<td>VES_SERVICE_USER</td>
<td>user</td>
<td>Yes</td>
<td>Specify the service account in the <code>DOMAIN\USERNAME</code> format. The account will be used for running the <em>Veeam Virtualization Extensions</em> service. The account must have administrative privileges on the computers hosting the Veeam Virtualization Extensions Service and the Collector(s).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VES_SERVICE_USER = &quot;veeam\Administrator&quot;</code></td>
</tr>
<tr>
<td>VES_SERVICE_PASSWORD</td>
<td>password</td>
<td>Yes</td>
<td>Specify the password for the <em>Veeam Virtualization Extensions</em> service user.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VES_SERVICE_PASSWORD = &quot;qwerty&quot;</code></td>
</tr>
<tr>
<td>VES_SERVER_PORT</td>
<td>port</td>
<td>No</td>
<td>Specify TCP port that will be used by the <em>Veeam Virtualization Extensions</em> service. By default, port number 8084 is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VES_SERVER_PORT = &quot;8084&quot;</code></td>
</tr>
<tr>
<td>VES_RES_POOL</td>
<td>Management Server resource pool</td>
<td>No</td>
<td>Specify name of the Management Server resource pool for Collector auto-deployment. Specify name of the Management Server resource pool for Collector auto-deployment. The name must be the same as the resource pool name in the Ops Mgr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If the parameter is not specified, auto-deployment is disabled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VES_RES_POOL = &quot;Veeam Collectors&quot;</code></td>
</tr>
</tbody>
</table>

After installation is complete, log off the server, then log on again. Or, in case you are installing Veeam UI remotely with Windows PowerShell, you will need to close the remote PowerShell session and initiate a new one.

Confirm installation and operation of the *Veeam Virtualization Extensions* service by checking the Windows Event Viewer. A new application logs called *Veeam Virtualization Extensions* will be created when the *Veeam Virtualization Extensions* service starts, and events from the *Veeam Virtualization Extensions* source should appear in this log.
Veeam Virtualization Extensions Web UI

**NOTE:**

In case you are installing Veeam UI on the same computer as the Veeam Virtualization Extensions Service, you will need to log off the server after Veeam Virtualization Extensions Service installation, then log on again.

In case you are installing Veeam UI remotely with Windows PowerShell, you will need to close the remote PowerShell session and initiate a new one.

This is required to activate the new *Veeam Virtualization Extensions Users* local group. (Otherwise, the UI setup will fail with "User is not allowed to access the Veeam Virtualization Extensions Service").

Open the command prompt and run the setup file *UI.msi* using the command of the following format:

```msiexec.exe [/L*v! "<path_to_log>"] /qn /I "<path_to_msi>"
[INSTALLDIR="<path_to_installdir>"]
EMUI_EM_SERVER="<Veeam_Virtualization_Extensions_server_address>"
EMUI_EM_SERVER_PORT="<Veeam_Virtualization_Extensions_port>"
[EMUI_WEB_SITE_PORT="<website_port>"
```

The following command-line options are used to run the setup file:

<table>
<thead>
<tr>
<th>Option</th>
<th>Parameter</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| /L       | *v! logfile | No       | Produces installation log file with the verbose output. Specify a full path to the log file as the parameter value. Any setup log file produced during the previous installation will be cleared. **Example:**

/L*v!

"C:\ProgramData\Veeam\Setup\Temp\Logs\UISetup.txt"

| /q       | n         | Yes      | Sets user interface level to "no". |
| /I       | setup file | Yes      | Installs the Veeam Virtualization Extensions Web UI component. Specify a full path to the setup file as the parameter value. **Example:**

/I "C:\Veeam\UI.msi"

| INSTALLDIR | path | No | Installs the component to the specified location. **Example:**

INSTALLDIR=”C:\Program Files\Veeam\Veeam Virtualization Extensions for System Center Configuration” |
### Option Table

<table>
<thead>
<tr>
<th>Option</th>
<th>Parameter</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMUI_EM_SERVER</td>
<td>server address</td>
<td>Yes</td>
<td>Specify an IP address or FQDN of the server where the Veeam Virtualization Extensions Service is installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>EMUI_EM_SERVER = &quot;servername.domain.local&quot;</code></td>
</tr>
<tr>
<td>EMUI_EM_SERVER_PORT</td>
<td>port</td>
<td>Yes</td>
<td>Specify TCP port that was selected for Veeam Virtualization Extensions service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>EMUI_EM_SERVER_PORT = &quot;8084&quot;</code></td>
</tr>
<tr>
<td>EMUI_WEB_SITE_PORT</td>
<td>port</td>
<td>No</td>
<td>Specify TCP port that will be used for connection with the UI website from the web browser. By default, port number <strong>4430</strong> is used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><code>EMUI_WEB_SITE_PORT = &quot;4430&quot;</code></td>
</tr>
</tbody>
</table>

### Veeam VMware Collector

On the server with the Collector role, open the command prompt and run the setup file `VeeamCollector64.msi` using the command of the following format:

```
msiexec.exe [/L*v! "<path_to_log>" ] /qn /I "<path_to_msi>"
[INSTALLDIR="<path_to_installdir>"
VIC_EM_SERVER="<Veeam_Virtualization_Extensions_server_address >"
VIC_EM_SERVER_PORT="<Veeam_Virtualization_Extensions_port >"
VIC_SERVICE_USER="<Collector_service_account >"
VIC_SERVICE_PASSWORD="<Collector_service_account_password>"
```

The following command-line options are used to run the setup file:

<table>
<thead>
<tr>
<th>Option</th>
<th>Parameter</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/L</td>
<td>*v! logfile</td>
<td>No</td>
<td>Produces installation log file with the verbose output. Specify a full path to the log file as the parameter value. Any setup log file produced during the previous installation will be cleared.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>/L *v! /C:&quot;C:\ProgramData\Veeam\Setup\Temp\Logs\CollectorSetup.txt&quot;</code></td>
</tr>
<tr>
<td>/q</td>
<td>n</td>
<td>Yes</td>
<td>Sets user interface level to “no”.</td>
</tr>
<tr>
<td>Option</td>
<td>Parameter</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>/I</td>
<td>setup file</td>
<td>Yes</td>
<td>Installs the Collector component. Specify a full path to the setup file as the parameter value.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>/I &quot;C:\Veeam\VeeamCollector64.msi&quot;</code></td>
</tr>
<tr>
<td>INSTALLDIR</td>
<td>path</td>
<td>No</td>
<td>Installs the component to the specified location.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>INSTALLDIR=&quot;C:\Program Files\Veeam\Collector&quot;</code></td>
</tr>
<tr>
<td>VIC_EM_SERVER</td>
<td>server address</td>
<td>Yes</td>
<td>Specify an IP address or FQDN of the server where the Veeam Virtualization Extensions Service is installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VIC_EM_SERVER=&quot;servername.domain.local&quot;</code></td>
</tr>
<tr>
<td>VIC_EM_SERVER_PORT</td>
<td>port</td>
<td>Yes</td>
<td>Specify TCP port that was selected for Veeam Virtualization Extensions service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VIC_EM_SERVER_PORT=&quot;8084&quot;</code></td>
</tr>
<tr>
<td>VIC_SERVICE_USER</td>
<td>user</td>
<td>Yes</td>
<td>Specify the service account in the &quot;DOMAIN\USERNAME&quot; format. The account will be used for running the Veeam VMware Collector service. The account must have administrative privileges on the Collector server and be a member of the Veeam Virtualization Extensions Users local group on the server running Veeam Virtualization Extensions Service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VIC_SERVICE_USER = &quot;veeam\Administrator&quot;</code></td>
</tr>
<tr>
<td>VIC_SERVICE_PASSWORD</td>
<td>password</td>
<td>Yes</td>
<td>Specify the password for the Veeam VMware Collector service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><code>VIC_SERVICE_PASSWORD=&quot;qwerty&quot;</code></td>
</tr>
</tbody>
</table>
Appendix B. Upgrading to Microsoft System Center 2012/2012 R2 Operations Manager

To upgrade from Microsoft System Center 2007 R2 Operations Manager to Microsoft System Center 2012/2012 R2 Operations Manager, perform the following steps:

1. Delete the Veeam VMware Views for Ops Mgr 2007 management pack as described in section Delete Veeam Management Packs.

2. Upgrade the Ops Mgr components as described in the Ops Mgr documentation.

3. Import the Veeam VMware Views management pack as described in section Import Management Packs.

In case you have previously imported the Veeam Virtualization Extensions VMware Integration management pack, after upgrading Ops Mgr agents Veeam MP for VMware will send an alert that triggers the Configure Health Service task. The task automatically adjusts registry configuration settings for the Health Service on Collectors to maximize efficiency when processing large data volumes.

NOTE:
The Configure Health Service task will not run automatically for Health Service on the Management Server. To update the Health Service registry values on the Management Server, you will need to run the task manually.

If you have not previously imported the Veeam Virtualization Extensions VMware Integration management pack, you will have to run the task manually. For details, see the Operations Guide, section Unstable Behavior from Ops Mgr Health Service.