VEEAM MANAGEMENT PACK 8.0
FOR MICROSOFT SYSTEM CENTER
Release Notes

The Release Notes document provides last-minute information about Veeam Management Pack for System Center, including relevant information on technical support, documentation, online resources, etc.

The current version of Veeam Management Pack is available from April 15, 2016.

See next:
- New in This Release
- Resolved Issues
- Known Issues and Limitations
- System Requirements
- Contacting Veeam Software
New in This Release

The following features and enhancements were introduced in Veeam MP 8.0 for System Center.

**Support for Veeam Backup & Replication 9.0**

Veeam MP now supports Veeam Backup & Replication v9.

The recently released Veeam MP 8.0 for System Center - Update 1 contains additional discovery rules, new and updated monitors to support Veeam Backup & Replication v9 services:

- The **Veeam Backup Monitoring** MP includes newly implemented service monitors designed to trace Veeam Backup & Replication v9 services.
- The **Veeam Backup MP Rule - Backup Job Change Tracking** has been updated to track changes for backup to tape and file to tape jobs.
- The **Veeam Backup Infrastructure Service Topology** now also displays Veeam Backup & Replication v9 services.

For more information, see the MP for Veeam Backup & Replication User Guide.

**Experimental Support for Windows Server, Hyper-V and Ops Mgr vNext**

Veeam MP announces Experimental Support for Windows Server, Hyper-V and Operations Manager vNext builds (Technical Preview builds).

**Veeam Morning Coffee Dashboard™**

The Morning Coffee Dashboard is the first thing to see once you get to work. This dashboard provides at-a-glance real-time overview of your infrastructure. The dashboard tracks the state of infrastructure objects and the overall resource utilization, and immediately displays these changes in a single view.

For more information on the Morning Coffee Dashboard, see the Veeam MP for VMware Operations Guide and Veeam MP for Hyper-V User Guide.

**SMB Storage support**

Veeam MP for Hyper-V supports SMB Shares, and provides new performance metrics, analysis monitors and performance views. Reports now take into account presence of SMB shares in your virtual environment.

For the full list of new monitoring features for Veeam MP for Hyper-V, see the Veeam MP for Hyper-V User Guide.

**vSphere 6.0 support**

This version fully supports vSphere 6.0 platform, and provides monitoring of new vCenter Server 6.0 alarms, VVOLS and VSANs.

For the full list of new alarms, see Veeam MP for VMware Reference included in the Veeam MP Resource Kit.

**Hardware monitoring with vCenter Server hardware alarms**

By default, hardware monitoring in version 8.0 is performed using an extended list of vCenter Server hardware alarms. Collection rules that allow you to monitor state of host hardware sensors via CIM XML are included in the separate Veeam VMware Advanced ESXi Hardware Monitoring (CIM-based) MP.

For more information on the Veeam VMware Advanced ESXi Hardware Monitoring (CIM-based) MP, see the Veeam MP Resource Kit.

**New Hyper-V CPU dispatch wait time monitoring**

Veeam MP added monitoring of the **CPU Wait Time Per Dispatch** metric (an equivalent to the VMware CPU Ready) to help you detect CPU resource usage bottlenecks.
New reports

Veeam MP for VMware and Veeam MP for Hyper-V include the following new reports:

- **Infrastructure Summary** (VMware and Hyper-V). These reports reveal the necessary inventory configuration specifics and allow you to evaluate current resource utilization in your infrastructure.

- **Overprovisioned Storage** (VMware and Hyper-V). Thin provisioning and dynamic disk technology allow administrators to allocate for virtual machines more storage space than there is real physical capacity. These reports help you reveal excessive storage over-provisioning in your virtual environment.

- **Guest OS Summary** (VMware and Hyper-V). These reports analyze virtual infrastructure configuration to show all types of guest OSes installed on VMs, and the number of VMs that run OS of a specific type.

- **Virtual Machines. Snapshot Summary** (VMware) and **Virtual Machines. Checkpoint Summary** (Hyper-V). These reports show snapshot age and size statistics for the selected scope of virtual machines to help you detect outdated snapshots and better address the problem of storage capacity waste.

- **Virtual Machines. Uptime Statistics** (Hyper-V). The report is designed to track VM availability, by reporting on the new Veeam HyperV: Virtual Machine Uptime monitor. The report can be used to track and confirm the uptime of virtualized workloads, for reporting in Service Level agreements, downtime and outage analysis and so on.

- **Hyper-V Top Noisy objects** (Hyper-V). The report analyzes alerting activity and provides information on virtual infrastructure objects that caused the greatest number of alerts across a time range.

- **Stressed Hosts** (Hyper-V). The report helps you to detect resource demanding virtual machines that fail to operate because the hosts where these VMs reside are not capable to sustain the workload. The report analyzes historical performance, configured resource allocation and current workloads to provide recommendations for an optimized allocation of resources.

- **Job Configuration Change Tracking** (Backup). The report helps you track job modification changes performed within the reporting period, identify who and when made changes to job configuration, and thus simplify troubleshooting.

- **Backup Infrastructure Assessment** (Backup). The report analyzes configuration of your backup environment against a set of recommended baseline settings and implementations, identifies VMs that cannot be properly backed up due to configuration limitations, verifies problem areas and helps mitigate potential issues.

- **VM Backup Status** (Backup). The report provides daily backup status for all VMs protected with Veeam Backup & Replication.

- **Delegated Restore Permissions Overview** (Backup). The report analyzes restore permissions configured in Veeam Backup Enterprise Manager. It returns a list of users and groups who can restore entire VMs, guest OS files and application items in Veeam Backup Enterprise Manager, and shows what type of data these users can restore according to assigned permissions.


Updated reports

- **Virtual Machines. Right-sizing – VMs Oversized/Undersized for Memory and CPU**. These reports now include the Performance Modeling Based On option that allows you to choose whether to provide recommendations based on maximum (peak) or average CPU and memory historical values to assess VM performance more accurately.
- **Capacity Planning for Azure Hybrid Cloud.** Since Microsoft extended the list of available VM and Cloud Service sizes, this report now takes into account more performance metrics and includes more VM profiles in the output to assess resources needed to run your workloads in the Windows Azure cloud more accurately.

**Hyper-V Task Manager VMM plug-in**

Veeam MP includes the Hyper-V Task Manager VMM plug-in that allows you to run Veeam Task Manager for Hyper-V from the SCVMM console.

To learn how to install the plug-in, see the Veeam MP Resource Kit Guide.

**Improved scalability for vSphere and Hyper-V hypervisors**

Veeam MP for VMware includes adjustable parameters to support vCenter Servers with a large number of workloads, and processes optimized requests to vCenter APIs.

Veeam MP for Hyper-V supports optimized performance metric datasources to support a large number of VMs. Storage discovery and monitoring have also been improved to support a large number of Cluster Shared Volumes.

**Improved heatmap widgets and analysis dashboards with per-datastore metrics**

This version includes new per-datastore metrics to display resource usage on heatmaps more accurately. For the full list of Veeam MP metrics, see Veeam MP Reference included in the Veeam MP Resource Kit.

**Improved visibility for Veeam Backup & Replication**

Veeam Management Pack 8.0 provides additional monitoring services including:

- RPO Monitor — proactively generates alerts if RPO targets are in danger of falling outside of preconfigured ranges.
- Job transport mode failover — generates an alert when a backup job fails to use the recommended and more robust VM disk backup methods.
- Proxy/repository/WAN version — out-of-date, alerting monitor.

**Built-in Ops Mgr agent proxy settings monitored for Hyper-V servers and Veeam Collectors**

The Veeam VMware Monitoring and Veeam Hyper-V Monitoring management packs include new ‘Ops Mgr Agent proxy status’ monitors that allow you to track proxy status of Ops Mgr agents installed on Veeam Collectors and Hyper-V servers.

Ops Mgr agents running on Veeam Collector servers and monitored Hyper-V hosts must be granted the privilege to insert new objects into Ops Mgr as the topology is discovered. Right after you install, Veeam MP checks whether proxying is enabled on all Veeam Collectors and Hyper-V hosts that you are willing to monitor. If proxying is not enabled, you will get an alert in the Ops Mgr console.

To learn how to configure proxy settings, see the Veeam MP for VMware Installation Guide and Veeam MP for Hyper-V User Guide.

**VMware Virtual HBA support**

Veeam MP now detects vHBAs, displays them in the _vCenter Compute Topology_ topology and monitors performance for storage paths configured on these vHBAs.

**Custom VOB eventID support**

All vCenter events that cannot be categorized by Veeam Collector are marked as 'VOB' in the event source. The Collector will then publish uncategorized VOB events in the Veeam VMware Event Log. This allows you to customize monitoring settings, create rules and monitors to track uncategorized events.
Resolved Issues

This section lists issues that were resolved in Veeam MP 8.0 for System Center.

All Platforms

Web console displays a blank page instead of Morning Coffee Dashboard

The Morning Coffee Dashboard now works correctly in the Operations Manager web console.

Veeam MP for VMware

‘VMwareCluster.totalvMotions’ performance metric values not collected

In previous versions, VMware Collectors did not collect VMwareCluster.totalvMotions metric values. This caused the _vMotions performance view (located under the vSphere Cluster > Performance Views > vm node of the Veeam for VMware tree) and the vSphere Clusters. Number of Virtual Machine report to show zero VMwareCluster.totalvMotions metric values for all clusters.

In Veeam MP 8.0, the issue was resolved.

Veeam MP for Hyper-V

Hyper-V Cluster Disk counters display incorrect values

Under certain circumstances, the Ops Mgr Condition Detection module may not be able to correctly process values obtained for cluster disks. The reason is that the Ops Mgr Management Server retrieves double data type and uses comma as a decimal separator, and the Ops Mgr Condition Detection module is not able to identify comma as a decimal separator.

Earlier, to work around the issue, you could configure default Action Accounts on all Management Servers to use dot as a decimal separator. Now, Veeam provides a fix which formats data in a way the Ops Mgr Condition Detection module understands, regardless of decimal separator settings.

False alerts from ‘Veeam Hyper-V VM Checkpoint Age’ monitor

A known Microsoft Hyper-V bug caused VM snapshots to be timestamped as 01/01/1601 after a host reboot. This could cause the metric Hyper-V VM Checkpoints/AgeHours to be incorrect which would cause the Veeam Hyper-V: VM Checkpoint Analysis monitor to fire an alert stating incorrect snapshot age. For more details on the issue, see the Microsoft Windows Server Forum.

Empty Guest OS and Guest DNS name properties

Veeam Management Pack for Hyper-V no longer contains an issue which prevented the guest OS and guest DNS name properties from being collected. For more details on the issue, see this Veeam KB article.

High memory usage causes Health Service restarts

Veeam MP includes a large library of rules and monitors for comprehensive Hyper-V infrastructure monitoring. As a downside, the Ops Mgr agent on the host has to process a large number of workflows. In previous versions, this could cause high numbers for used handles and private bytes for the Monitoring Host process. In version 8.0, numerous Hyper-V monitoring issues that could cause slow Ops Mgr agent performance have been fixed.
MP for Veeam Backup & Replication

‘Veeam Backup: Repository Connection Status’ availability monitor works as expected

In previous versions, under certain circumstances the Veeam Backup: Repository Connection Status monitor could trigger false alerts on critical state of backup repositories. These alerts could be caused by performance issues of the WMI provider for Veeam Backup & Replication.

In Veeam MP 8.0 for System Center - Update 1, a workaround has been implemented, and now the monitor works correctly.
Known Issues and Limitations

This section lists issues known in Veeam MP 8.0 for System Center.

All Platforms

Absent Path property in the Traffic Lights widget

Supporting SQL stored procedures on the SQL back-end have been significantly re-factored by Microsoft and now work more reliably and much faster, however the current version lacks path information. Even if you configure the Traffic Lights widget to display the Path property, dashboards will still show no data for it.

In a future release, Veeam will improve the Traffic Lights widget architecture to display Path properties regardless of data obtained from the supported SQL stored procedures.

Drill-down option does not work in Capacity Planning for Azure Cloud report

The Capacity Planning for Azure Cloud report included in the Veeam Capacity Planning for Hybrid Clouds MP provides an opportunity to click numbers in the output table to drill down to the list of VMs that matches profiles and to check performance data for these VMs. However, if the number of VMs is too big (>200), the drill-down option will not work and you will get the following error: ‘The value of parameter ‘Object’ is not valid. (rsInvalidParameter). Invalid URI: The Uri string is too long.’

This is a known MS SQL Server 2012 SP1 issue.

Non-default collation settings for SQL cause Data Warehouse errors after import of Veeam MP

If you are using a non-default SQL Collation that is not supported by Ops Mgr, after installation of Veeam MP you may receive errors, such as: ‘Cannot resolve the collation conflict between ‘SQL collation’, ‘SQL_Latin1_General_CP1_CI_AS’ and ‘Latin1_General_CI_AS’ in the equal to operation’.

This is not a Veeam MP issue, although it is exposed by the reporting features in Veeam MP. The root cause is an unsupported configuration for the Ops Mgr Data Warehouse DB.

To avoid this issue, make sure that the supported collation is specified for Ops Mgr and Data Warehouse databases when installing Ops Mgr. It is also required that the collation is configured identically between the following databases and the SQL instance(s) in which they reside:

- OperationsManager
- DataWarehouse
- Tempdb

For existing installations it may be required to port/reinstall Ops Mgr to use a supported SQL collation configuration.

For a list of collations supported by Ops Mgr, see:

- Ops Mgr 2012 SP1 system requirements at technet.microsoft.com/en-us/library/jj656654.aspx
- Ops Mgr 2012 R2 system requirements at technet.microsoft.com/en-us/library/dn249696.aspx
Snapshot Summary report displays incorrect snapshot size values

By design, the Virtual Machines. Snapshot Summary report displays data obtained from the vSphere web API. In the vSphere web API, snapshots cannot be directly associated with delta disks produced when you create these snapshots. That is why, the report currently represents only the size of memory dump files and does not take into account the size of delta disks.

This is a known issue. The report will be enhanced in a future release to provide more accurate, useful and understandable information.

Veeam Relationship History, Storage vMotions History and vMotions History reports do not work or work slowly

The Ops Mgr Data Warehouse DB may accumulate huge amounts of discovered objects and relationships between them. If you have many management packs installed and frequent discoveries running, in 3-5 years the Relationship Table may include millions of records.

Please contact Veeam Customer Support to hotfix performance of Veeam Relationship History, Storage vMotions History and vMotions History reports by narrowing down the scope of objects available for reporting.

Consumed Memory metric for vSphere cluster reports unexpected values

Under certain circumstances, if you choose to split host clusters into multiple monitoring jobs to allow more flexible load-balancing, the VMCluster-memory \ memoryUsedMB metric may report incorrect values.

To work around the issue, disable the SplitClusters option and try redistributing monitoring load across Collectors.

COS partition monitoring deprecated

In Veeam MP 8.0, COS partition monitoring on ESX hosts has been deprecated. Please contact support for additional information.

Hardware information not collected via CIM-XML

In the new version, the default method of hardware status monitoring uses vCenter hardware alarms. After you upgrade to Veeam MP 8.0, hardware monitoring using CIM over XML will be disabled.

To learn how to enable monitoring through CIM-XML, see Veeam MP Resource Kit Guide.

Host performance data collection skipping intervals

In some cases no performance data is obtained from vCenter for a specific ESX host for a given performance interval.

Veeam is working with VMware SDK support on the root cause of this issue. In version 8.0, Veeam MP handles this situation and generates a VP510 event driving a Monitor in the Ops Mgr. When the problem is resolved, Veeam MP notifies that ESX host performance data was successfully collected with the VP511 event.

Veeam MP plug-in for vCenter not compatible with VMware plug-in requirements

In previous versions, Veeam UI could be integrated directly into the VMware vSphere client. This was accomplished by registering the UI as a plug-in with the vCenter server. Starting with Veeam MP v8, there is no such a possibility since the plug-in is no longer compatible with the current VMware plug-in requirements.
Overprovisioned Storage report displays negative values for overprovisioned VMs

For thin-provisioned VMs, vSphere may report that used space values are higher than the allocated space values. This may happen in several cases: memory swapped out to a datastore, VM being migrated or suspended. For such VMs, the Datastores. Overprovisioned Storage report may show negative overprovisioning values.

This is a known vSphere API issue. Normally, in large infrastructure such VMs should not be visible in the list of top 5 over-provisioned VMs.

Veeam UI does not show connected VMware servers

If you open Veeam UI when vCenter connection failover and/or failback for a vCenter Server with several hundreds of hosts is performed, Veeam UI may not be able to display connection changes promptly. As a result, you will see no servers under the Connected VMware Servers tree on the VMware Servers tab. To fix the issue, log off and then log in back.

Datastore Unknown Files Analysis monitor generates excessive alerts

The Veeam VMware: Datastore Unknown Files Analysis monitor tracks space taken on datastores by files unknown to vCenter. Some 3rd-party solutions can replicate, backup or copy VM files without registering them in vCenter.

To resolve the issue, override the Veeam VMware: Datastore Unknown Files Analysis monitor by increasing the ‘UnknownFilesGBThreshold’ value to prevent the monitor from firing unwanted alerts. You can also simply disable the monitor for the necessary datastores. The Veeam VMware: Datastore Free Space Analysis monitor will continue to work and report on free space left on the datastores.

vCenter-targeted monitors contain duplicate entries in State Change Events table

If you configure multiple monitoring jobs for one vCenter Server and assign these jobs to different Veeam Collectors, all Collectors will generate events and trigger monitors. That is why the monitor State Change Events table will have multiple entries with the same events.

Veeam VMware Collector unable to retrieve host statistics via CIM

If the time on a Veeam Collector is not synchronized with the time on monitored ESX(i) hosts, the Collector will be unable to gather hardware data from the hosts via CIM.

To learn how to verify time synchronization across an ESX/ESXi host environment, see this VMware KB article.

Unexpected behavior of some alarm monitors

Some alarm monitors for which the healthy (green) state is not configured (for example, ‘Veeam VMware: vSphere HA virtual machine monitoring Alarm’) resolve when you acknowledge the alarm in the vSphere Client, not when you manually clear it.

Veeam UI plugin does not appear in vSphere Web Client

When you integrate Veeam UI directly into the VMware vSphere client by registering the UI as a plugin with the vCenter server, the plugin does not appear in the Web Client UI.

During initial discovery Ops Mgr shows GUIDs instead of datastore names

Under certain circumstances, when the environment has multiple Veeam Collectors, and datastore discovery on the Collector that runs the datastore monitoring job is delayed, then Ops Mgr may show datastore GUIDs instead of datastore names.

This issue will be resolved automatically within 4-24 hours when discoveries from all Collectors have completed. Alternatively, you can manually re-launch the discovery process and initiate a topology rebuild. To do so, in the Virtualization Extensions Web UI go to the Veeam Collectors tab and click the Rebuild Full Topology link.
Tracking audit events in drill-down for Host Security Profile report

Due to differences in the methods Ops Mgr uses to store events versus the methods used to store object properties, the Host Security Profile report may not display all expected audit events when you drill down to a specific change. This can occur due to synchronization issues around discovery and update of the Host Security Profile object (which happens once daily) and the storing of associated security change events (which happens in real-time).

To view all host security profile audit events, click the Total number of changes link under the host name. This link will always display all security events captured in the reporting period.

Alerts for inactive direct-to-host connections remain after vCenter connection failback

After the vCenter Connection Failover feature has performed failback (removing direct-host connections and returning to using a vCenter connection), alerts that were triggered for failed direct-to-host connections may be shown as unresolved in the Ops Mgr console for up to one hour, even if the host connection in vCenter is restored.

This is due to the one hour schedule for rediscovery of the connection configuration for the Veeam Extensions Service. Any alerts for direct-host connections will disappear when the direct-host connections are removed from Ops Mgr on the next discovery cycle. The discovery interval for the Veeam Virtualization Extensions Service connection topology can be modified by overriding the discovery rule Veeam Virtualization Extensions for System Center Topology discovery.

vCenter Connection Failover does not work if any managed host is in Lockdown mode

If Lockdown mode is enabled for any host managed by vCenter Server, there is no way to connect to the ESX(i) host directly. As a result, the Virtualization Extensions Service will not be able to create direct-to-host connections during vCenter Connection Failover.

Datastore monitoring disabled for direct-to-host connections

Datastore monitoring for direct-to-host connections is disabled by default, due to possible issue with the vCenter Connection Failover feature. When a vCenter failover occurs connections are automatically created direct to all hosts. When using directly-connected hosts there are limitations in the host API, which reports shared datastores as multiple duplicate datastores for every host connection. The performance metrics for such datastores are inaccurate, as individual hosts are not aware of other host activities on shared storage. This duplication of datastores can also cause the monitoring load on Collectors and the Ops Mgr system to increase significantly. For these reasons datastore monitoring is automatically disabled by default for direct-host connections and it is not recommended to enable it when using the vCenter Connection Failover feature.

If monitoring of direct-to-host connections and their attached datastores is a requirement (for example for remote office/branch office situations, where hosts are not part of a vCenter) then datastore monitoring can be enabled by using the advanced MonitorDatastoresForDirectHost setting in the Veeam Virtualization Extensions UI. This setting can be applied to a separate monitoring group in the Web UI which holds only direct-to-host connections, allowing flexibility to use both direct-to-host and vcenter connection methods in one environment. For more information, see the Operations Guide, vCenter Connection Failover section.

Controlling vCenter connection failover during planned vCenter maintenance

If you plan to perform maintenance on the vCenter Server, however Veeam failover to direct-host connections is not desired, it is recommended to set the Veeam link to vCenter or vSphere Host object in maintenance mode. This will prevent the Veeam VMware: Connection Lost to VMware vCenter server monitor from triggering the failover script. For details on putting vSphere objects in the maintenance mode in Ops Mgr, refer to the Operations Guide, Maintenance Mode Synchronization section.

Alternatively, if you wish to pro-actively trigger the Veeam failover to direct-host connections before the vCenter actually goes offline, you can manually force the failover using the in-context ‘Force failover to to Direct-Host connections’ task to enable monitoring via direct-to-host connections. Then you can set the Veeam link to vCenter or vSphere Host object in maintenance mode which will prevent unwanted failback.
**Account unable to access the Veeam Virtualization Extensions Service during vCenter Failover**

For the vCenter Failover feature to function, a powershell script must run in context of the Ops Mgr Agent Action account which will reconfigure the monitoring targets using the Veeam powershell interface (VE Shell). If the default Action Account for the Ops Mgr agent on the Veeam Virtualization Extensions Service machine does not have access to the Veeam VEShell (PowerShell interface), you may see the following error: ‘[User ID] account unable to access the Veeam Virtualization Extensions Service’. The error can occur for any Agent Action account that cannot access Veeam VEShell, including LocalSystem.

To fix the issue, the account specified as default Agent Action Account should be added to the Veeam Virtualization Extensions Users local group on the server running the Veeam Virtualization Extensions Service. Please keep in mind that the vCenter connection failover feature will not work if you use Local System as the default Agent Action Account, that is why adding Local System to the group is not desired. In this case, change the Agent Action Account to be a domain user account, and add this account to the local group. Note that this account should also be an Administrator of the local server.

The account may also be unable to access the Veeam Virtualization Extensions Service during failover because you have the Enterprise license edition. Only Enterprise Plus edition supports vCenter connection failover.

**VMs rediscovered with different IDs after vCenter Connection Failover**

When vCenter Connection Failover occurs, VMs will be re-discovered with a new ID, as the vSphere API used when connecting direct to hosts does not provide the same ID as a vCenter connection. This will result in VMs being re-discovered effectively as ‘new’ VMs in Ops Mgr terms. Note however that the display name for such VMs in Ops Mgr will be the same — only the underlying Operations Manager ID will be different. This will be transparent for normal monitoring situations, but some gaps may be visible in historical reporting once vCenter is restored and failback has occurred.

**vCenter Connection Failover will utilize all Collectors in a monitoring group**

When Virtualization Extensions Service fails over to direct-to-host connections, the direct-to-host collection jobs are ‘load-balanced’ among all Collectors in the monitoring group. Collectors which were Inactive may become loaded with host Monitoring Jobs, and hosts may be monitored by different Collectors than were used for the vCenter connection.

**Web UI suffers degraded performance with very high number of direct-host connections**

If the Virtualization Extensions Service manages direct connections for more than 300 vSphere hosts, the Veeam Virtualization Extensions UI application may suffer degraded performance. As a result, the Web UI may become unresponsive, or operations may be performed with delays. If the Virtualization Extensions Service manages more than 500 vSphere hosts, you may observe problems and errors with representation of the VMware Servers connections hierarchy in the Web UI.

If you work with a large number of direct-connected vSphere hosts (for example if the vCenter Connection Failover feature has been triggered), it is strongly recommended to use the Veeam VEShell interface for configuring and managing the Veeam Virtualization Extensions Service since VEShell does not experience the same performance problems as the Web UI. For details on the available powershell commandlets for managing the Veeam Virtualization Extensions Service, see the Veeam VEShell Reference.

**Health Service recommended configuration monitor stays in warning state after recovery action**

After Veeam MP for VMware is installed, the Veeam VMware Collector: Health Service recommended configuration monitor runs a recovery action — a script that adjusts registry configuration settings for the Ops Mgr Health Service on Collector servers. After the script is performed, the Health Service (Microsoft Monitoring Agent Service) is restarted. Note that automatic restart only occurs when the Collector is installed on a server with Ops Mgr Agent – not an Ops Mgr Management Server.
In some cases, the script may fail to restart the Health Service (Microsoft Monitoring Agent); as a result, the monitor will stay in the Warning state. To resolve the issue, restart the Microsoft Monitoring Agent service manually.

**Veeam Collector may skip events from directly-connected ESX(i) host after reboot**

The vSphere API has a known issue when connecting directly to an ESX(i) host that the Event ID counter is reset when the host is rebooted. The Veeam Collector uses this Event ID to internally track and filter events for delivery to Ops Mgr, and the reset of this counter causes the event filtering to fail and events may be skipped.

If direct-host connections are used (for example during the vCenter Failover feature), then the following procedure should be followed if a host is rebooted.

1. Stop Veeam VMware Collector service where the rebooted host is monitored.
2. Locate the `sidebar.xml` file in the `Data` folder of the Veeam Collector installation directory.
3. Locate the `<field name='eventTracker' type='System.Collections.Hashtable'>` tag in the file.
4. Inside the tag, locate and delete the single line for the rebooted host server (this line will hold host name and a cached event ID counter, for example `esx-prod2:329999`)
5. Start Veeam VMware Collector service.

**OpsMgr Shell Module or Snap-in not found**

On the Ops Mgr Management Server, the Maintenance Mode synchronization script may fail with the following error: `MaintenanceMode.ps1 : OpsMgr Shell Module or Snap-in not found.`

To resolve the issue, install PowerShell 3.0 and reboot. If this does not resolve the issue, install the Operations Console on the Management Server.

**Alerting on unconnected NICs for vSphere hosts**

If a vSphere host NIC is not connected to any vSwitch or Distributed vSwitch, Veeam MP for VMware will not monitor its state. Monitoring will only start when NIC is added to a switch.

**Same datastore under different vCenter Servers or Datacenters is recognized as 2 objects**

If the same datastore is connected to different Datacenters within one vCenter Server or if the same datastore is connected to different vCenter Servers, it is recognized as two datastore objects in Operations Manager. Note that VMware do not recommend this configuration. Veeam MP for VMware treats such datastore as two separate datastores with completely different sets of properties and metrics. Although some metrics are the same (for example, size or free space), most performance counters will be different.

**Unknown files analysis issues**

The following issues related to unknown files analysis are known to exist:

- Running the `Scan Datastore for Unknown Files` task against inactive datastores can cause task failure.
- For datastores with no registered VMs, the `UnknownFilesGB` metric value is returned as ‘0’.
- During VM migration process, there can be two copies of VM files while the VM is registered on one host only. The host where the VM is not registered might report VM files as garbage files. This will result in the `UnknownFilesGB` metric showing inaccurate value and the `Veeam VMware: Datastore Unknown Files Analysis` alerts triggered for affected datastores.
- Storage devices with hardware deduplication may report unknown files values incorrectly. That is why the `Veeam VMware: Datastore Unknown Files Analysis` monitor is disabled by default for Virtual Volumes, VSAN datastores and NFS datastores.
Sporadic error: unable to find Veeam VMware Event log

During the normal Veeam MP for VMware discovery process, some vSphere objects may be temporarily unmanaged and their management will reside on an Operations Manager Management Server. When trying to run Veeam workflows for such objects, the Management Server will attempt to open the Veeam VMware Event log. If there is no Veeam VMware Collector installed on the MS, the following error will be observed: ‘The Windows Event Log Provider is still unable to open the Veeam VMware Event log on computer ‘<OpsMgr Manager Server Name>’.’

When the Veeam MP discovery process is finished, all vSphere objects will have been ‘claimed’ for management by a Collector and the errors on the MS should no longer appear.

Login using Windows credentials not supported when Veeam UI is on a separate server

When the Veeam Virtualization Extensions Service and Veeam Virtualization Extensions UI are installed on different machines, login to the UI using Windows credentials fails with the error: ‘System.UnauthorizedAccessException: Attempted to perform an unauthorized operation.’

This is because Microsoft IIS does not pass authentication data across the two machines.

You can access the UI by re-entering valid account credentials (a member of the Veeam Virtualization Extensions Users group).

vCenter Server No Access permission restrictions not supported

Partially-restricted vCenter permissions for the VMware connection account are not supported — that is, excluding vSphere hosts/clusters/VMs from monitoring by having ‘No Access’ permission in vCenter for those specific objects is not supported. The VMware connection account must have minimum read-only access to the entire vCenter VI-tree.

To remove hosts/clusters from monitoring, use the Veeam Virtualization Extensions UI, VMware Servers tab, and clear the check boxes for the clusters or hosts that should not be monitored.

To remove specific virtual machines from monitoring, use overrides on the Veeam MP discovery rules. For details, see section Discovery Filtering in the Veeam MP for VMware Operations Guide.

5-minute interval required in vCenter Statistics settings

The default 5-minute setting in vCenter for statistics collection (VI Client - Administration – Statistics) should not be changed. This interval is required for Veeam MP for VMware data collection.
**Veeam MP for Hyper-V**

**Configuration Change Tracking and Alert Correlation report displays GUID to VM name as a change**

Veeam MP discovers Hyper-V virtual machines using several sources (cluster resources, storage device, Hyper-V resources and, if necessary, SCVMM namespace). Not all of these sources contain the display name of a virtual machine. That is why, in case of mismatched discovery timings, for a short period of time the VM may be represented with its GUID in the Ops Mgr console.

The **Configuration Tracking and Alert Correlation** report, which is designed to capture such changes, cannot tell the difference between this change and the real change of the VM name. That is why, the report will consider GUID to VM name as a real VM name change, and will include this change in the output table.

**VM Net and Disk Traffic Analysis dashboard does not show Net Used and Disk Time statistics**

The **VM Net and Disk Traffic Analysis** dashboard shows empty % Net Used, % Disk Time widget.

**Importing Hyper-V Task Manager VMM plug-in without restart may cause SCVMM console to crash**

After you import the Hyper-V Task Manager plugin, you need to restart the SCVMM console. Veeam Task Manager for Hyper-V can be launched for Host and Cluster objects. That is why, if you try to select a non-supported object (for example, a VM) right after importing the plugin, without restarting SCVMM console, the console may crash.

**Last Successful Backup property of Hyper-V VMs is always empty**

Some backup solutions, including Veeam Backup & Replication, can perform crash-consistent Hyper-V backups. When you create such backups, the **Last Successful Backup** VM property is not updated.

If you use Veeam Backup & Replication and want to get an up-to-date list of all protected VMs and their current properties, import MP for Veeam Backup & Replication and use the **Protected VMs** report included in the MP. For more information on MP for Veeam Backup & Replication, see the MP for Veeam Backup & Replication User Guide.

**Hyper-V Integration Services are required for full-featured monitoring**

Some data will be missing if a Hyper-V VM does not have Integration Services installed. For example, the **Veeam HyperV: VM Power State** monitor will not be able to display power state correctly. As recommended by Microsoft, Hyper-V Integration Services should be installed in all VMs where the guest OS supports it.

**Integration Services monitor may generate errors for an unresponsive VM**

A heavily loaded virtual machine may not be able to respond in a timely manner. In this case, the **Veeam HyperV: VM Integration Services Status** monitor script will write errors to the Ops Mgr log.

** Renamed VMs should be rebooted**

After a VM is renamed, it should be restarted to ensure that Hyper-V can correctly report VM name and its metric values. Additionally, some performance metrics for the VM will not be fed into the Ops Mgr until the VM is rebooted.

**Error Count metric shows high values for SCSI disc attached to a VM**

When the Hyper-V host does not correctly process a command that the guest OS sent to the SCSI device, it will increase the **Error Count** metric value although the command is valid and not necessarily an error. This is a known issue for Hyper-V environment.
VMs are temporarily represented with GUIDs instead of VM names
Hyper-V VMs are discovered by several rules — these rules target Hyper-V host resources and cluster resources. In some cases, the cluster resources discovery can run prior to the main Hyper-V host resources discovery. As a result, VM objects may be temporarily represented with IDs (VM GUIDs) instead of VM names. When all discovery is completed, the issue will be resolved.

GUIDs shown for VMs residing on offline storage
Under some circumstances, VMs can be removed from Hyper-V Manager inventory while the storage remains offline (for example, the storage became inaccessible for a long term).
When Veeam MP discovers such offline volumes, it identifies remaining VMs and shows VM GUIDs in Ops Mgr. To resolve the issue, bring the storage volume online, clean VM files completely and initialize re-discovery on the volume.

Inaccurate performance statistics for VMs with the same name
If two or more VMs on a Hyper-V host have the same VM name, the Hyper-V Task Manager may show inaccurate performance statistics data for such VMs. This is because Microsoft performance metric logging makes it impossible to map metrics when VMs have the same name.

VMs with static memory report zero memory usage
For VMs with static memory, Hyper-V will not send memory usage data to the PerfMon classes. As a result, such VMs will have zero memory usage in Ops Mgr.

Ops Mgr reports problems with unloading workflows when all VMs on a host stopped
When all VMs on a Hyper-V host are stopped, events 10103 will be written to the Ops Mgr event log on the Hyper-V host:
’In PerfDataSource, could not resolve counter instance [CounterName]. Module will not be unloaded. One or more workflows were affected by this.’
When all VMs are stopped, Hyper-V server unloads all PerfMon classes, and Ops Mgr PerfMon module cannot access data.

Hyper-V host local volumes do not appear in Ops Mgr console
Local disks and volumes on Hyper-V hosts will be discovered only if there are VMs on these volumes. This discovery behavior is by design.

NFS Storage not supported
The current Veeam Hyper-V MP version supports Local Storage, Cluster Shared Volumes and SMB Shares only. NFS Shares are not supported.

VM pass-through disks not included in total VM storage metric
The size of the pass-through disks is not taken into account when the Used Storage metric value for a VM is calculated.

Virtual Machines. Idle VMs report does not show Down Time data
The Virtual Machine. Idle VMs report output tables show ‘n/a’ values in the Down Time (%) column.

Traffic lights and Top N dashboard widgets do not show data, although infrastructure topology is already discovered and performance metrics are available
After installation or upgrade, Traffic Light and Top N dashboard widgets will show no data until performance statistics are aggregated in the Ops Mgr data warehouse. In general, the initial aggregation takes about 4 hours. This behavior is by design.

VM Uses Storage property mismatch for VMs and volumes with multiple mount paths
If a VM is migrated from a volume that has several mount paths, the Used Storage property for the VM may be reported incorrectly. For the volume that has multiple mount paths, Veeam Hyper-V MP is able to collect only the last path value. This value may differ from the path value stored in the VM
properties. For this reason, the relations between the VM, CSV and Host Disk may be displayed incorrectly.

**Used Storage GB reported as zero for unavailable CSV**

If a Clustered Shared Volume is unavailable (failed status), the *Used Storage GB* metric will be reported as zero.

**Unauthorized Access exception in Management Server log**

If the Run As account configured for the *Veeam Hyper-V MP VMM Connection Account (Read-only)* profile does not have sufficient permissions, ‘Unauthorized Access’ exceptions will be written to the event log on the Management Server.

In the Ops Mgr agent event log on the SCVMM server, you will see an exception similar to this: *Cannot connect to SDK. Check Veeam Hyper-V MP VMM Connection Account (Read-only) Profile. It must contain account with sufficient access rights.*

The issue will be resolved as soon as you configure the Veeam Hyper-V MP VMM Connection Account. For details, see Appendix A in the Veeam MP for Hyper-V User Guide.

**MP for Veeam Backup & Replication**

**Backup Job RPO compliance monitor does not work for SureBackup jobs**

The *Veeam Backup: Job RPO Compliance* monitor is designed to track jobs which produce restore points. SureBackup jobs perform verification of restore points that have already been created. That is why the monitor will ignore SureBackup jobs, and will stay in the ‘Green’ state when tracking their results.

**VM Backup Status report incorrectly displays some backup job states**

The Backup Status dataset rule collects the results of backup job sessions. In case the rule captures the “in-Progress” state, the *VM Backup Status* report will mark this state with a warning. The “in-Progress” job state may indicate poor performance of the Veeam Backup configuration database or other performance issues on the backup server.

**Backup Job RPO compliance monitor is in Healthy state although last successful restore point is older than 3 months**

The *Veeam Backup: Job RPO Compliance* monitor is designed to track job history for successfully created restore points for the previous 3 months.

It is not recommended to use the monitor to track jobs that are scheduled to run with a 3-month interval or rarely. If you enable the monitor for such a job, as soon as a restore point is created, the monitor will generate an alert stating either that the job is disabled, or that the job schedule is incorrectly configured to meet the desired RPO.

**Limitations for Veeam Backup & Replication 7.0**

Veeam MP uses Veeam Backup & Replication API for data collection and reporting. Since Veeam Backup & Replication 7.0 API does not support some Veeam Backup & Replication features, the following Veeam MP 8.0 reports and monitors will not work with Veeam Backup & Replication 7.0:

- Configuration Tracking and Alert Correlation report
- Job Configuration Change Tracking report
- Delegated Restore Permissions Overview report
- Veeam Backup: Job transport mode status monitor
- Veeam Backup: Job RPO Compliance monitor

**Protected VMs report shows no data**
The **Protected VMs** report shows all VMs as unprotected though backup data has been collected successfully. This is a known report limitation since the same vCenter servers have to be both connected to Veeam Backup & Replication console and displayed in the Veeam UI under the same unique address (it is recommended to use FQDN in both cases).

To resolve the issue, remove the connection to the vCenter server in the Veeam UI and add it again with the same name as it appears in the Veeam Backup & Replication console.

**' _Total Instance’ value of ‘CPU Used %’ metric for Veeam backup proxy exceeds 100%**

The Veeam Backup Proxy CPU Used % rule collects the performance metric CPU Used % as a total of average CPU usage for all processes running on the Veeam backup proxy server. When the backup proxy is overloaded, the _Total instance may be reported to be higher than 100%.

**VM Configuration Assessment Report may show false-positive result for vmdk file size test**

If a VM has a large volume (more than 2TB), but the volume is distributed among several VMDK files, the VM Configuration Assessment Report may incorrectly report this volume as having a potential backup issue.

**VM Configuration Assessment Report may not show problematic 2TB disk in vmdk file size test**

In some cases, the VM Configuration Assessment Report may not indicate a potential issue for large vmdk files, although Veeam Backup & Replication will not be able to back up these files. This behavior is observed when a 2TB vmdk disk resides on VMFS version 4 or earlier, and the VM is registered in vSphere hosts 5.5 or later.

**Job sessions that failed before VMs enumeration are excluded from Veeam Backup Reports**

If a backup or replication job fails before initiating the VM backup routine, there is no way to get the precise list of VMs that the job should process. Such failed sessions cannot be associated with any VMs and are excluded from from Veeam Backup Reports.

**Restore Operator Activity report does not list all types of restore operations**

Veeam Backup & Replication does not have audit for all types of restores that users can perform. Because of that, certain types of restore operations, such as restores from SAN snapshots and U-AIR wizard-driven restores will not be visible in the Restore Operator Activity report.

**State of re-initialized monitors for all backup jobs is Green**

When a Veeam Backup server goes down, the WMI namespace on this server cannot be accessed. As a result, Veeam MP for Backup discovery will groom all backup jobs managed by this server. When the server is back online, Ops Mgr will rediscover jobs for this server and re-initialize monitors for the jobs.

The state of re-initialized monitors for the backup jobs will be Green even if the jobs previously finished with errors or warnings.
System Requirements

This section describes hardware and software requirements for Veeam MP for System Center.

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

Microsoft System Center Operations Manager

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
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</table>
| Ops Mgr       | - Microsoft System Center 2012 R2 Operations Manager
                - Microsoft System Center 2012 SP1 Operations Manager
  **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)
  **Note:** see the Veeam MP for VMware Sizing Calculator available as a part of Veeam MP Resource Kit. |
| Additional Software | Ops Mgr Reporting server and Data Warehouse (optional; required for reporting).
  **Important:** Veeam MP for VMware reporting only supports Microsoft SQL Server 2008 SP3, SQL Server 2008 R2 SP2, SQL Server 2012 SP3 and SQL Server 2014 Reporting Services. |

Veeam Virtualization Extensions Service

Notes
1. Veeam Virtualization Extensions Service must be installed on an Ops Mgr Management Server.
2. All instances of Virtualization Extensions 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>
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</table>
| Hardware      | - **Hard disk space:** minimum 2GB — required for .NET Framework installation, binaries and logfiles.
  - **Memory and Processor:** processor architecture must be x64.
  **Note:** the Virtualization Extensions Service does not perform heavy-load data processing. The minimum hardware requirement for an Operations Manager management server will support the Virtualization Extensions Service with no significant additional load generated. |
| OS            | - Windows Server 2012 R2
  - Windows Server 2012 or Windows Server 2012 Core Installation
  - Windows Server 2008 R2 SP1 |
| Additional Software | - Operations Manager Management Server
  - Windows Remote Management must be enabled for the management server
  - Microsoft .NET Framework 4.0 or later
  - Windows PowerShell 2.0 or later — required for Veeam Virtualization Extensions Shell |
Veeam Virtualization Extensions UI

The Veeam Virtualization Extensions Web UI is an IIS-based web application that allows authorized users to access the Veeam Virtualization Extensions Service. The Web UI can be installed together with the Veeam Virtualization Extensions Service or on a separate machine.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
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<tbody>
<tr>
<td><strong>Hardware</strong></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 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. |

Veeam MP for VMware

This section includes requirements specific for Veeam VMware MP.

VMware Infrastructure

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESX Host</strong></td>
<td>• ESXi 4.x, 5.x, 6.0</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>• vCenter Server 4.x, 5.x, 6.0</td>
</tr>
</tbody>
</table>

Veeam VMware Collector

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

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>
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</table>
| **Hardware**      | **Memory:** 4GB minimum.  
To achieve maximum scalability and performance, x64 OS with 6GB RAM is recommended.  
**Hard disk space:** 2GB minimum— required for .NET Framework installation, binaries and logfiles.  
**Processor:** 4 x 2GHz minimum. |

Veeam MP for Hyper-V

This section includes requirements specific for Veeam Hyper-V MP.

**Microsoft Hyper-V Infrastructure**

The Veeam Hyper-V MP supports the following Hyper-V infrastructure components:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
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<tbody>
<tr>
<td><strong>Hosts</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Windows Server Hyper-V 2012 R2</td>
</tr>
<tr>
<td></td>
<td>• Windows Server Hyper-V 2012</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>• Windows Server Hyper-V 2008 is not supported.</td>
</tr>
<tr>
<td></td>
<td>• System Center Virtual Machine Manager is NOT a requirement.</td>
</tr>
</tbody>
</table>

| Additional Software | Ops Mgr agents must be installed on every Hyper-V host. |
|                    | For system requirements for Ops Mgr agents, please refer to the Ops Mgr documentation. |

**MP for Veeam Backup & Replication**

**Veeam Backup & Replication**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Version</strong></td>
<td>Veeam Backup &amp; Replication 7.0 Patch 2 (and later)</td>
</tr>
<tr>
<td><strong>Editions</strong></td>
<td>• Veeam Backup &amp; Replication Standard</td>
</tr>
<tr>
<td></td>
<td>• Veeam Backup &amp; Replication Enterprise</td>
</tr>
<tr>
<td></td>
<td>• Veeam Backup &amp; Replication Enterprise Plus</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td>Monitoring and reporting for Veeam Backup Free Edition is not supported.</td>
</tr>
</tbody>
</table>

| Additional Software | Veeam backup server that manages jobs must have the Veeam Backup & Replication PowerShell SDK component installed. |
|                     | Ops Mgr agent must be installed on Veeam backup servers, Veeam Backup Enterprise Manager server, backup proxies, backup repositories, WAN accelerators. |
| **Note:**           | For system requirements for Ops Mgr agents, refer to the Ops Mgr documentation. |
Contacting Veeam Software

At Veeam Software we value the feedback from our customers. It is important not only to help you quickly with your technical issues, but it is our mission to listen to your input, and build products that incorporate your suggestions.

Customer Support

Should you have a product issue, suggestion or question, please visit our Customer Center Portal at cp.veeam.com to open a case, search our knowledge base, reference documentation, manage your license or obtain the latest product release.

Online Support

If you have any questions about the Veeam Management Pack for System Center, you may use the following resources:

- Resources: www.veeam.com/management-pack-system-center-resources.html
- Online documentation: www.veeam.com/documentation-guides-datasheets.html?prd=mp
- Community forum: forums.veeam.com

Company Contacts

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