



# Veeam Backup & Replication

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Version 9.x

Required Permissions Reference

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# Contents

CONTACTING VEEAM SOFTWARE .....	4
ABOUT THIS DOCUMENT .....	5
INSTALLATION AND OPERATION .....	6
BACKUP .....	8
REPLICATION .....	9
INSTANT VM RECOVERY .....	11
QUICK MIGRATION .....	12
SUREBACKUP .....	13
ENTIRE VM RESTORE .....	14
REPLICA FAILOVER .....	16
REPLICA FAILBACK .....	17
FILE-LEVEL RESTORE .....	18
VSPHERE WEB CLIENT PLUG-IN FOR VEEAM BACKUP & REPLICATION .....	19
CUMULATIVE PERMISSIONS.....	20

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## Customer Support

Should you have a technical concern, suggestion or question, visit the Veeam Customer Support Portal at [www.veeam.com/support.html](http://www.veeam.com/support.html) to open a case, search our knowledge base, reference documentation, manage your license or obtain the latest product release.

## Company Contacts

For the most up to date information about company contacts and offices location, visit [www.veeam.com/contacts.html](http://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](http://www.veeam.com/documentation-guides-datasheets.html)
- Community forum at [forums.veeam.com](http://forums.veeam.com)

# About This Document

This document provides information about accounts and permissions required for Veeam Backup & Replication 9.x installation and operation, and also about granular vCenter Server permissions required for the certain Veeam Backup & Replication operations in VMware vSphere 6.x environment.

## Document Revision History

Revision #	Date	Description of Changes
Revision 4	7/16/2019	Updated for Veeam Backup & Replication 9.5 Update 4b.
Revision 3	3/26/2019	Updated for Veeam Backup & Replication 9.5 Update 4a.
Revision 2	2/21/2019	Added information about Change Settings permission for <a href="#">Cumulative Permissions</a> .
Revision 1	1/22/2019	Initial version of the document.

# Installation and Operation

The accounts used for installing and using Veeam Backup & Replication must have the following permissions (detailed list is provided in the User Guide):

Account	Required Permissions
<b>Setup Account</b>	Local Administrator permissions on the Veeam Backup & Replication console to install Veeam Backup & Replication.
<b>Target/Source Host Configuration</b>	<p>Root permissions on the source ESX(i) server.</p> <p>Local Administrator permissions on the source Hyper-V server.</p> <p>Root (or equivalent) permissions on the target Linux host.</p> <p>Write permission on the target folder and share.</p> <p>If vCenter is used, administrator credentials are required.</p>
<b>SQL Server</b>	<p>The account used to run Veeam Backup Service requires <i>db-datareader</i> and <i>db_datawriter</i> roles, as well as permissions to execute stored procedures for the VeeamBackup database (or another one used as Veeam Backup database) on the SQL Server instance. Alternatively, you can assign <i>db_owner</i> role for that database to service account.</p> <p>The account used to run Veeam Backup Enterprise Manager service requires <i>db-datareader</i> and <i>db_datawriter</i> roles, as well as permissions to execute stored procedures for the VeeamBackupReporting database (or another one used as Veeam Backup Enterprise Manager database) on the SQL Server instance. Alternatively, you can assign <i>db_owner</i> role for that database to service account.</p>
<b>Veeam Backup Enterprise Manager</b>	<p>Local Administrator permissions on the destination server to install Veeam Backup Enterprise Manager.</p> <p>To be able to work with Veeam Backup Enterprise Manager, users must be assigned the Portal Administrator, Restore Operator or Portal User role.</p> <p>For more information on permissions required for Enterprise Manager operation, see the <a href="#">Required Permissions</a> section in the Enterprise Manager User Guide.</p>
<b>Veeam Explorer for Microsoft Active Directory</b>	<p>The account used for connection with target domain controller where objects/containers will be restored needs the following:</p> <ul style="list-style-type: none"> <li>▪ Administrative rights for target Active Directory</li> <li>▪ Membership in the Exchange Organization Management group – to provide for automatic mailbox re-connect for recovered user or group account</li> </ul>

<p><b>Veeam Explorer for Microsoft SQL Server</b></p>	<ul style="list-style-type: none"> <li>▪ The user account that you specify for guest processing of the Microsoft SQL Server VM in the backup job should have the sysadmin fixed role assigned on that SQL Server, or the set of granular roles described here.</li> <li>▪ The account you will use to access the target Microsoft SQL server where database will be restored needs the sysadmin fixed role on that server.</li> <li>▪ The account you plan to use for connection to the Windows machine (where database log backup files will be copied for further log replay) will need sufficient permissions to access the administrative share on that machine: Read and Write are minimal required. For restore scenarios that involve log replay, that machine is your target SQL Server. For export, this is your staging system. For more information, see the <a href="#">Required Permissions</a> section in the Veeam Explorers User Guide.</li> <li>▪ The account used to run Veeam Explorer for Microsoft SQL Server should have sufficient permissions for the folder where you plan to export the database files: Read and Write are minimal recommended.</li> </ul>
<p><b>Veeam Explorer for Microsoft Exchange</b></p>	<p>Full access to Microsoft Exchange database and its log files for item recovery. You need both Read and Write permissions to all files in the folder with the database.</p> <p>Access rights for item recovery can be provided through impersonation, as described in the <a href="#">Configuring Exchange Impersonation</a> article, or by providing user account with Full Access to mailbox.</p> <p>For more information, see the <a href="#">Required Permissions</a> section in the Veeam Explorers User Guide.</p>
<p><b>Veeam Explorer for Microsoft SharePoint</b></p>	<p>For more information on accounts used for Veeam Explorer operations and corresponding permissions, see the <a href="#">Required Permissions</a> section in the Veeam Explorers User Guide.</p>
<p><b>Veeam Explorer for Oracle</b></p>	<p>For more information on accounts used for Veeam Explorer operations, and corresponding permissions see the <a href="#">Required Permissions</a> section in the Veeam Explorers User Guide.</p>

**IMPORTANT!**

To back up and restore virtual machines in VMware vSphere 5.x environment, make sure the following permissions are set for the corresponding account at the vCenter Server level: Disable methods, Enable methods, Licenses.

For more information, see the VMware Knowledge Base [KB 2063054](#) article.

# Backup

Below are vCenter Server granular permissions required for backup:

Privilege Level		Required Permissions		
		Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
<b>Datastore</b>		Low-level file operations	Low-level file operations	Low-level file operations
<b>Datastore Cluster</b>		Configure a datastore cluster	Configure a datastore cluster	Configure a datastore cluster
<b>Global</b>		Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute	Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute	Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute
<b>Virtual Machine</b>	<b>Change Configuration</b>	Acquire disk lease Advanced configuration Set annotation Toggle disk change tracking	Acquire disk lease Add existing disk Add or remove device Advanced configuration Remove disk Set annotation Toggle disk change tracking	Advanced configuration Toggle disk change tracking Acquire disk lease Set annotation
	<b>Guest operations</b>	Guest operation modifications Guest operation program execution Guest operation queries	Guest operation modifications Guest operation program execution Guest operation queries	Guest operation modifications Guest operation program execution Guest operation queries
	<b>Interaction</b>	Guest operating system management by VIX API	Guest operating system management by VIX API	Guest operating system management by VIX API
	<b>Provisioning</b>	Allow read-only disk access Allow virtual machine download	Allow read-only disk access Allow virtual machine download	Allow read-only disk access Allow virtual machine download
	<b>Snapshot Management</b>	Create snapshot Remove snapshot	Create snapshot Remove snapshot	Create snapshot Remove snapshot



# Replication

Below are vCenter Server granular permissions required for replication:

Privilege Level		Required Permissions		
		Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
<b>Datastore</b>		Allocate space Browse datastore Low-level file operations Remove file	Allocate space Browse datastore Low-level file operations Remove file	Allocate space Browse datastore Low-level file operations Remove file
<b>Datastore cluster</b>		Configure a datastore cluster	Configure a datastore cluster	Configure a datastore cluster
<b>Global</b>		Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute	Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute	Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute
<b>Network</b>		Assign network	Assign network	Assign network
<b>Resource</b>		Assign virtual machine to resource pool	Assign virtual machine to resource pool	Assign virtual machine to resource pool
<b>Storage Profiles</b>		Profile-driven storage update Profile-driven storage view	Profile-driven storage update Profile-driven storage view	Profile-driven storage update Profile-driven storage view
<b>Virtual Machine</b>	<b>Change Configuration</b>	Add new disk Advanced Configuration Toggle disk change tracking Acquire disk lease Extend virtual disk	Add existing disk Add new disk Advanced Configuration Change resource Toggle disk change tracking Acquire disk lease Extend virtual disk Remove disk	Add new disk Advanced Configuration Toggle disk change tracking Acquire disk lease Extend virtual disk
	<b>Guest operations</b>	Guest operation modifications Guest operation program execution Guest operation queries	Guest operation modifications Guest operation program execution Guest operation queries	Guest operation modifications Guest operation program execution Guest operation queries

	<b>Interaction</b>	Connect devices Guest operating system management by VIX API	Connect devices Guest operating system management by VIX API	Connect devices Guest operating system management by VIX API
	<b>Edit Inventory</b>	Register Remove	Register Remove	Register Remove
	<b>Provisioning</b>	Allow disk access Allow read-only disk access Allow virtual machine download	Allow disk access Allow read-only disk access Allow virtual machine download	Allow disk access Allow read-only disk access Allow virtual machine download
	<b>Snapshot Management</b>	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot
<b>vApp</b>		Add virtual machine Assign resource pool Unregister	Add virtual machine Assign resource pool Unregister	Add virtual machine Assign resource pool Unregister

# Instant VM Recovery

Below are vCenter Server granular permissions required for Instant VM Recovery:

Privilege Level		Required Permissions
<b>Datastore</b>		Browse datastore Low-level file operations Remove file
<b>Global</b>		Log event
<b>Host</b>	<b>Configuration</b>	Storage partition configuration
<b>Resource</b>		Assign virtual machine to resource pool
<b>Virtual Machine</b>	<b>Interaction</b>	Console interaction Power Off Power On
	<b>Edit Inventory</b>	Register Unregister
	<b>Snapshot Management</b>	Create snapshot Remove snapshot
<b>vApp</b>		Add virtual machine Assign resource pool Unregister

# Quick Migration

Below are vCenter Server granular permissions required for Quick Migration:

Privilege Level		Required Permissions
<b>Datastore</b>		Allocate space Browse datastore Low-level file operations Remove file
<b>Global</b>		Disable methods Enable methods Licenses Log event Settings
<b>Resource</b>		Assign virtual machine to resource pool Migrate powered off virtual machine Migrate powered on virtual machine
<b>Storage Profiles</b>		Profile-driven storage update Profile-driven storage view
<b>Virtual Machine</b>	<b>Change Configuration</b>	Add existing disk Add new disk Advanced Configuration Change resource Remove disk Rename
	<b>Interaction</b>	Connect devices Power Off Power On Suspend
	<b>Edit Inventory</b>	Register Remove Unregister
	<b>Provisioning</b>	Allow disk access Allow read-only disk access Allow virtual machine download
	<b>Snapshot Management</b>	Create snapshot Remove snapshot Revert to snapshot
<b>vApp</b>		Add virtual machine Assign resource pool

# SureBackup

Below are vCenter Server granular permissions required for SureBackup:

Privilege Level		Required Permissions
<b>Datastore</b>		Browse datastore Low-level file operations Remove file
<b>Folder</b>		Create folder Delete folder
<b>Global</b>		Licenses Log event
<b>Host</b>	<b>Configuration</b>	Network configuration Storage partition configuration
<b>Network</b>		Assign network
<b>Resource</b>		Assign virtual machine to resource pool Create resource pool Remove resource pool
<b>Virtual Machine</b>	<b>Change Configuration</b>	Add or remove device Advanced Configuration
	<b>Interaction</b>	Power Off Power On
	<b>Edit Inventory</b>	Register Remove Unregister
	<b>Provisioning</b>	Allow disk access
	<b>Snapshot Management</b>	Create snapshot Remove snapshot
<b>dvPort Group</b>		Create Delete

# Entire VM Restore

Below are vCenter Server granular permissions required for Entire VM Restore:

Privilege Level		Required Permissions		
		Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
<b>Datastore</b>		Allocate space Browse datastore Low-level file operations Remove file	Allocate space Browse datastore Low-level file operations Remove file	Allocate space Browse datastore Low-level file operations Remove file
<b>Folder</b>		Create folder	Create folder	Create folder
<b>Global</b>		Disable methods Enable methods Licenses Log event	Disable methods Enable methods Licenses Log event	Disable methods Enable methods Licenses Log event
<b>Network</b>		Assign network Configure	Assign network Configure	Assign network Configure
<b>Resource</b>		Assign virtual machine to resource pool	Assign virtual machine to resource pool	Assign virtual machine to resource pool
<b>Storage Profiles</b>		Profile-driven storage update Profile-driven storage view	Profile-driven storage update Profile-driven storage view	Profile-driven storage update Profile-driven storage view
<b>vCenter Inventory Service</b>	<b>vCenter Inventory Service Tagging</b>	Assign or Unassign Inventory Service Tag	Assign or Unassign Inventory Service Tag	Assign or Unassign Inventory Service Tag
<b>Virtual Machine</b>	<b>Change Configuration</b>	Add existing disk Add new disk Advanced Configuration Change Settings Toggle disk change tracking Acquire disk lease Remove disk Modify Device Settings	Add existing disk Add new disk Advanced Configuration Change Settings Toggle disk change tracking Remove disk Modify Device Settings	Add existing disk Add new disk Advanced Configuration Change Settings Toggle disk change tracking Remove disk Modify Device Settings
	<b>Interaction</b>	Connect devices Power Off Power On	Connect devices Power Off Power On	Connect devices Power Off Power On
	<b>Edit Inventory</b>	Register Remove	Register Remove	Register Remove

	<b>Provisioning</b>	Allow disk access Allow read-only disk access Allow virtual machine download Allow virtual machine files upload Mark as template* Mark as virtual machine*	Allow disk access Allow read-only disk access Allow virtual machine download Allow virtual machine files upload Mark as template* Mark as virtual machine*	Allow disk access Allow read-only disk access Allow virtual machine download Allow virtual machine files upload Mark as template* Mark as virtual machine*
	<b>Snapshot Management</b>	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot
<b>dvPort Group</b>		Create Delete	Create Delete	Create Delete
<b>vApp</b>		Add virtual machine Assign resource pool Unregister	Add virtual machine Assign resource pool Unregister	Add virtual machine Assign resource pool Unregister

\*- required for template restore

# Replica Failover

Below are vCenter Server granular permissions required for Replica Failover:

Privilege Level		Required Permissions
Datastore		Browse datastore Low-level file operations Remove file
Global		Log event
Virtual Machine	Change Configuration	Advanced Configuration Rename
	Interaction	Power Off Power On
	Snapshot Management	Create snapshot Remove snapshot Revert to snapshot



# Replica Failback

Below are vCenter Server granular permissions required for Replica Failback:

Privilege Level		Required Permissions
<b>Datastore</b>		Allocate space Browse datastore Low-level file operations Remove file
<b>Global</b>		Disable methods Enable methods Licenses Log event
<b>Resource</b>		Assign virtual machine to resource pool
<b>Storage Profiles</b>		Profile-driven storage update Profile-driven storage view
<b>vCenter Inventory Service</b>	<b>vCenter Inventory Service Tagging</b>	Assign virtual machine to resource pool
<b>Virtual Machine</b>	<b>Change Configuration</b>	Add existing disk Add new disk Advanced Configuration Toggle disk change tracking Acquire disk lease Remove disk Rename
	<b>Interaction</b>	Power Off Power On
	<b>Edit Inventory</b>	Register
	<b>Provisioning</b>	Allow disk access Allow read-only disk access Allow virtual machine download
	<b>Snapshot Management</b>	Create snapshot Remove snapshot Revert to snapshot

# File-level Restore

## File-level Restore (Windows)

Below are vCenter Server granular permissions required for file-level restore of a Windows VM:

Privilege Level		Required Permissions
Virtual Machine	Guest operations	Guest operation modifications Guest operation program execution Guest operation queries

## File-level Restore (Other guest)

Below are vCenter Server granular permissions required for file-level restore of a non-Windows VM:

Privilege Level		Required Permissions
Datastore		Browse datastore Low-level file operations
Global		Log event
Host	Configuration	Storage partition configuration
Network		Assign network Configure
Resource		Assign virtual machine to resource pool
Virtual Machine	Change Configuration	Modify device settings Change Settings
	Interaction	Power Off Power On
	Edit Inventory	Register Unregister

# vSphere Web Client Plug-in for Veeam Backup & Replication

Below are vCenter Server granular permissions required for installation and uninstallation of vSphere Web Client plug-in for Veeam Backup & Replication:

Privilege Level	Required Permissions
<b>Extension</b>	Register extension Unregister extension

# Cumulative Permissions

This section lists cumulative vCenter permissions required for Veeam Backup & Replication operations.

## IMPORTANT!

To back up and restore virtual machines in VMware vSphere 5.x environment, make sure the following permissions are set for the corresponding account at the vCenter Server level: Disable Methods, Enable Methods, Licenses.

For more information, refer to the VMware Knowledge Base [KB 2063054](#) article.

Privilege Level		Cumulative Permissions
<b>Cryptographic operations</b>		Add disk Direct Access Encrypt Encrypt new Migrate
<b>Datastore</b>		Allocate space Browse datastore Low-level file operations Remove file
<b>Datastore cluster</b>		Configure a datastore cluster
<b>Extension</b>		Register extension Unregister extension
<b>Folder</b>		Create folder Delete folder
<b>Global</b>		Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute Settings
<b>Host</b>	<b>Configuration</b>	Network configuration Storage partition configuration
<b>Network</b>		Assign network Configure
<b>Resource</b>		Assign virtual machine to resource pool Create resource pool Migrate powered off virtual machine Migrate powered on virtual machine Remove resource pool

<b>Storage Profiles</b>		Profile-driven storage update Profile-driven storage view
<b>Virtual Machine</b>	<b>Change Configuration</b>	Acquire disk lease Add existing disk Add new disk Add or remove device Advanced configuration Change Settings Change resource Extend virtual disk Modify device settings Remove disk Rename Set annotation Toggle disk change tracking
	<b>Guest operations</b>	Guest operation modifications Guest operation program execution Guest operation queries
	<b>Interaction</b>	Console interaction Connect devices Guest operating system management by VIX API Power Off Power On Suspend
	<b>Edit Inventory</b>	Register Remove Unregister
	<b>Provisioning</b>	Allow disk access Allow read-only disk access Allow virtual machine download Allow virtual machine files upload
	<b>Snapshot Management</b>	Create snapshot Remove snapshot Revert to snapshot
<b>vSphere Tagging</b>		Assign or Unassign vSphere Tag
<b>dvPort Group</b>		Create Delete
<b>vApp</b>		Add virtual machine Assign resource pool Unregister