



Veeam Backup & Replication

Version 9.x

Required Permissions

July, 2017

#1 for Virtualization™
Management and Data Protection

Microsoft Partner
Gold Application Development
Gold Management and Virtualization



© 2017 Veeam Software.

All rights reserved. All trademarks are the property of their respective owners.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means, without written permission from Veeam Software Inc (Veeam). The information contained in this document represents the current view of Veeam on the issue discussed as of the date of publication and is subject to change without notice. Veeam shall not be liable for technical or editorial errors or omissions contained herein. Veeam makes no warranties, express or implied, in this document. Veeam may have patents, patent applications, trademark, copyright, or other intellectual property rights covering the subject matter of this document. All other trademarks mentioned herein are the property of their respective owners. Except as expressly provided in any written license agreement from Veeam, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

Important! Please read the End User Software License Agreement before using the accompanying software program(s). Using any part of the software indicates that you accept the terms of the End User Software License Agreement.

CONTENTS

CONTENTS.....	3
ABOUT THIS DOCUMENT.....	4
INSTALLATION AND OPERATION	5
BACKUP	7
REPLICATION.....	8
INSTANT VM RECOVERY	9
QUICK MIGRATION.....	10
SUREBACKUP	11
FULL VM RESTORE	12
REPLICA FAILOVER	14
REPLICA FAILBACK.....	15
FILE-LEVEL RESTORE (OTHER GUEST)	16
VSPHERE WEB CLIENT PLUG-IN FOR VEEAM BACKUP & REPLICATION.....	17
CUMULATIVE PERMISSIONS.....	18

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 6.0 environment.

Document Revision History

Revision #	Date	Description of Changes
Revision 1	24/05/2016	Initial version of the document.
Revision 2	20/06/2016	Added information about permissions for installing and removing vSphere web client plug-in for Veeam Backup & Replication.
Revision 3	04/10/2016	Added information about Extend virtual disk permission for replication.
Revision 4	31/10/2016	Typos fixed.
Revision 5	11/07/2016	Added information about Set Annotation permission for backup.
Revision 6	03/07/2017	Added information about Assign or Unassign Inventory Service Tag permission for full VM restore.
Revision 7	10/07/2017	Added information about Assign or Unassign Inventory Service Tag permission for replica failback.
Revision 8	07/14/2017	Added information about Assign network permissions for replication.

INSTALLATION AND OPERATION

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

Account	Required Permissions
Setup Account	Local Administrator permissions on the Veeam Backup & Replication console to install Veeam Backup & Replication
Target/Source Host Configuration	<p>Root permissions on the source ESX/ESXi 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>
SQL Server	<p>The account used to run Veeam Backup Service requires db_datareader and db_datawriter roles, as well as permissions to execute stored procedures for the <i>VeeamBackup</i> database (or another one used as Veeam Backup database) on the SQL Server instance. Alternatively, you can assign db_owner role for that database to service account</p> <p>The account used to run Veeam Backup Enterprise Manager service requires db_datareader and db_datawriter roles, as well as permissions to execute stored procedures for the <i>VeeamBackupReporting</i> database (or another one used as Veeam Backup Enterprise Manager database) on the SQL Server instance. Alternatively, you can assign db_owner role for that database to service account.</p>
Veeam Backup Enterprise Manager	<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 should be assigned the <i>Portal Administrator</i>, <i>Restore Operator</i> or <i>Portal User</i> role.</p> <p>For more information on permissions required for Enterprise Manager operation, please refer to https://helpcenter.veeam.com/docs/backup/em/required_permissions.html</p>
Veeam Explorer for Microsoft Active Directory	<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"> • Administrative rights for target Active Directory • Membership in the Exchange Organization Management group - to provide for automatic mailbox re-connect for recovered user or group account

Account	Required Permissions
Veeam Explorer for Microsoft SQL Server	<ul style="list-style-type: none"> 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. 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. 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 details, refer to https://helpcenter.veeam.com/docs/backup/explorers/vesql_permissions.html. 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.
Veeam Explorer for Microsoft Exchange	<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 Configuring Exchange Impersonation article, or by providing user account with Full Access to mailbox.</p> <p>For more details, please refer to the User Guide: https://helpcenter.veeam.com/docs/backup/explorers/vee_required_permissions.html</p>
Veeam Explorer for Microsoft SharePoint	<p>Accounts used for Veeam Explorer operations, and corresponding permissions are described in the User Guide: https://helpcenter.veeam.com/docs/backup/explorers/vesp_permissions.html</p>
Veeam Explorer for Oracle	<p>Accounts used for Veeam Explorer operations, and corresponding permissions are described in the User Guide: https://helpcenter.veeam.com/docs/backup/explorers/veo_permissions.html</p>

Important! To backup 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**.
To read more, refer to the VMware KB article at http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2063054.

BACKUP

Below are vCenter Server granular permissions required for backup:

Privilege Level		Required Permissions		
		Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
Datastore		Low-level file operations	Low-level file operations	Low-level file operations
Datastore cluster		Configure a datastore cluster	Configure a datastore cluster	Configure a datastore cluster
Global		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
Virtual Machine	Configuration	Advanced Disk change tracking Disk lease Set Annotation	Add existing disk Advanced Change resource Disk change tracking Remove disk Set Annotation	Advanced Disk change tracking Set Annotation
	Interaction	Guest operating system management by VIX API	Guest operating system management by VIX API	Guest operating system management by VIX API
	Provisioning	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
	Snapshot Management	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
Datastore		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
Datastore cluster		Configure a datastore cluster	Configure a datastore cluster	Configure a datastore cluster
Global		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
Network		Assign network	Assign network	Assign network
Resource		Assign virtual machine to resource pool	Assign virtual machine to resource pool	Assign virtual machine to resource pool
Virtual Machine	Configuration	Add new disk Advanced Disk change tracking Disk lease Extend virtual disk	Add existing disk Add new disk Advanced Change resource Disk change tracking Disk lease Extend virtual disk Remove disk	Add new disk Advanced Disk change tracking Disk lease Extend virtual disk
	Interaction	Device connection Guest operating system management by VIX API	Device connection Guest operating system management by VIX API	Device connection Guest operating system management by VIX API
	Inventory	Register Remove	Register Remove	Register Remove
	Provisioning	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
	Snapshot Management	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot
vApp		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
Datastore		Browse datastore Low-level file operations Remove file
Global		Log event
Host	Configuration	Storage partition configuration
Resource		Assign virtual machine to resource pool
Virtual Machine	Interaction	Console interaction Power Off Power On
	Inventory	Register Unregister
	Snapshot Management	Create snapshot Remove snapshot
vApp		Add virtual machine Assign resource pool Unregister

QUICK MIGRATION

Below are vCenter Server granular permissions required for Quick Migration:

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

SUREBACKUP

Below are vCenter Server granular permissions required for SureBackup:

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

FULL VM RESTORE

Below are vCenter Server granular permissions required for full VM restore:

Priviledge Level		Required Permissions		
		Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
Datastore		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
Folder		Create folder	Create folder	Create folder
Global		Disable methods Enable methods Licenses Log event	Disable methods Enable methods Licenses Log event	Disable methods Enable methods Licenses Log event
Network		Assign network Configure	Assign network Configure	Assign network Configure
Resource		Assign virtual machine to resource pool	Assign virtual machine to resource pool	Assign virtual machine to resource pool
vCenter Inventory Service	vCenter Inventory Service Tagging	Assign or Unassign Inventory Service Tag	Assign or Unassign Inventory Service Tag	Assign or Unassign Inventory Service Tag
Virtual Machine	Configuration	Add existing disk Add new disk Advanced Disk change tracking Disk lease Remove disk	Add existing disk Add new disk Advanced Disk change tracking Remove disk	Add existing disk Add new disk Advanced Disk change tracking Remove disk
	Interaction	Device connection Power Off Power On	Device connection Power Off Power On	Device connection Power Off Power On
	Inventory	Register Remove	Register Remove	Register Remove
	Provisioning	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*
	Snapshot Management	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot	Create snapshot Remove snapshot Revert to snapshot

Privilege Level	Required Permissions		
	Direct SAN Access Mode	Virtual Appliance Mode	Network Mode
dvPort Group	Create Delete	Create Delete	Create Delete
vApp	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	Configuration	Advanced 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
Datastore		Allocate space Browse datastore Low-level file operations Remove file
Global		Disable methods Enable methods Licenses Log event
Resource		Assign virtual machine to resource pool
vCenter Inventory Service	vCenter Inventory Service Tagging	Assign or Unassign Inventory Service Tag
Virtual Machine	Configuration	Add existing disk Add new disk Advanced Disk change tracking Disk lease Remove disk Rename
	Interaction	Power Off Power On
	Inventory	Register
	Provisioning	Allow disk access Allow read-only disk access Allow virtual machine download
	Snapshot Management	Create snapshot Remove snapshot Revert to snapshot

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	Configuration	Modify device settings
	Interaction	Power Off Power On
	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
Extension	Register extension Unregister extension

CUMULATIVE PERMISSIONS

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

Important! To backup 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**. To read more, refer to the VMware KB article at http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2063054.

Privilege Level		Cumulative Permissions
Datastore		Allocate space Browse datastore Low-level file operations Remove file
Datastore cluster		Configure a datastore cluster
Extension		Register extension Unregister extension
Folder		Create folder Delete folder
Global		Disable methods Enable methods Licenses Log event Manage custom attributes Set custom attribute Settings
Host	Configuration	Network configuration Storage partition configuration
Network		Assign network Configure
Resource		Assign virtual machine to resource pool Create resource pool Migrate powered off virtual machine Migrate powered on virtual machine Remove resource pool
vCenter Inventory Service	vCenter Inventory Service Tagging	Assign or Unassign Inventory Service Tag

Privilege Level		Cumulative Permissions
Virtual Machine	Configuration	Add existing disk Add new disk Add or remove device Advanced Change resource Disk change tracking Disk lease Extend virtual disk Modify device settings Remove disk Rename Set Annotation
	Interaction	Console interaction Device connection Guest operating system management by VIX API Power Off Power On Suspend
	Inventory	Register Remove Unregister
	Provisioning	Allow disk access Allow read-only disk access Allow virtual machine download Allow virtual machine files upload
	Snapshot Management	Create snapshot Remove snapshot Revert to snapshot
dvPort Group		Create Delete
vApp		Add virtual machine Assign resource pool Unregister