

# Veeam Backup for Microsoft Office 365

Version 1.5

User Guide

October, 2017

© 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 (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.

#### NOTE:

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

CONTACTING VEEAM SOFTWARE	5
ABOUT THIS GUIDE	6
BEFORE YOU START	7
What's New in v1.5	9
Mailbox Backup and Restore Process Overview	10
What's Inside	12
Applications and Components	12
Architecture	13
How It Works	
Configuration Database	16
Repository Files	17
How Retention Settings Are Applied	19
Prerequisites	22
System Requirements	22
Used Ports	25
Permissions	26
Considerations and Limitations	29
Licensing	31
License Types	31
WORKING WITH VEEAM BACKUP FOR MICROSOFT OFFICE 365	40
Deployment	40
Deployment Scenarios	40
Installing Components for Backup	41
Installing Components for Restore	43
Re-installing Management Server	45
Upgrading the Program	46
Uninstalling the Program	48
Starting the Program	49
GETTING TO KNOW THE USER INTERFACE	51
License Management	53
CONFIGURING PROGRAM OPTIONS	54
Folders to Exclude	56
Retention for Session Data	57
RESTful API Settings	58
Notification Settings	63
Authentication Settings for Tenants	65
SETTING UP BACKUP INFRASTRUCTURE	67
Configuring Backup Proxies	67
Configuring Repositories	74
Configuring Organizations	80
Backup of Organization Mailboxes.	86
Creating a Backup Job	86
Managing Jobs	92
Viewing Job Statistics	93
Exploring Backups	95
RESTORING ORGANIZATION MAILBOX DATA	98
Adding Databases to the Scope Manually	98

ADDENIDIA		12/
	LOG FILES	.123
	Sending Items	. 122
	Saving Items	. 121
	Export to PST File	. 115
	Restoring to Exchange	. 104
	Searching and Viewing Mailbox Items	. 101

# 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 technical concern, suggestion or question, please visit our Customer Center Portal at <a href="https://www.veeam.com/support.html">www.veeam.com/support.html</a> 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, please visit www.veeam.com/contacts.html.

### Online Support

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

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

# **About This Guide**

This guide describes how to deploy and configure the Veeam Backup for Microsoft Office 365 infrastructure and use the solution to backup and restore mailbox data. The document applies to version 1.5 of Veeam Backup for Microsoft Office 365 and all subsequent versions until it is replaced by a new document.

The document describes solution architecture, licensing, setup, configuration and operation procedures. The complete set of documents for Veeam Backup for Microsoft Office 365 can be found at <a href="https://www.veeam.com/documentation-guides-datasheets.html">https://www.veeam.com/documentation-guides-datasheets.html</a>.

### **Intended Audience**

This guide is intended for IT specialists who want to provide mail data availability for on-premises or Exchange Online organization users.

### **Revision History**

Revision #	Date	Change Summary
Revision 1	26/09/2017	Initial version of the document.

# Before You Start

Veeam Backup for Microsoft Office 365 is a solution that stores mailbox items from on-premises Exchange organization or Microsoft Office 365 Exchange Online organization to an offline repository and then allows users to browse and restore these items (mailboxes, folders, messages, tasks, contacts and so on). It provides the following capabilities:

- Mailbox item recovery can be done directly back to an Office 365 mailbox or to an on-premises Exchange mailbox.
- Alternatively, recovered e-mail can be saved as a file, e-mailed as an attachment or exported as a PST file.

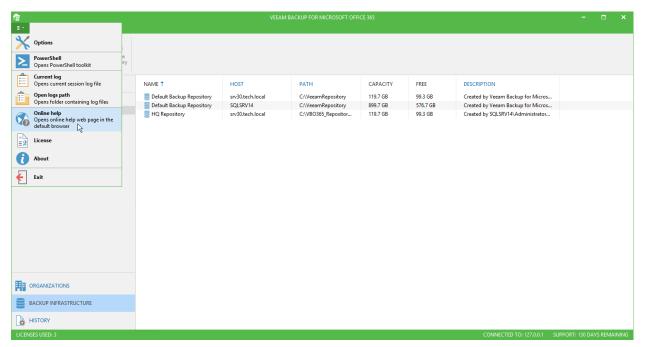
The solution can run on a physical or virtual machine that meets system requirements.

Veeam Backup for Microsoft Office 365 allows you to mitigate the risk of losing access to email data and to ensure data availability to Exchange users. It helps organizations to comply with the policies, requirements and regulations due to long-term archival, fully-functional search and granular restore capabilities. The solution can be used to backup on-premises, hybrid and cloud Exchange organization data and to migrate mailbox data between Exchange Online and on-premises Exchange organizations.

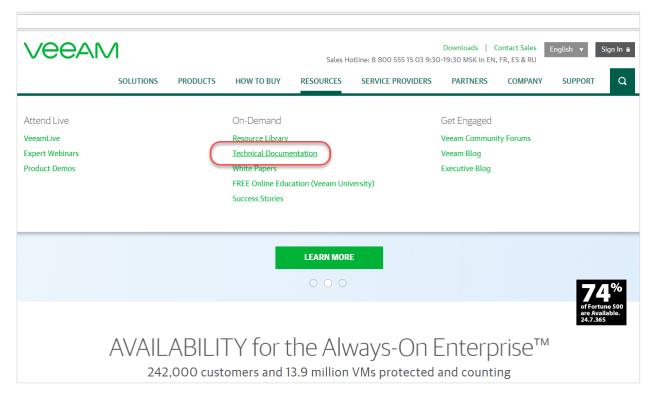
### **Accessing Help**

You can access the program Help in any of the following ways:

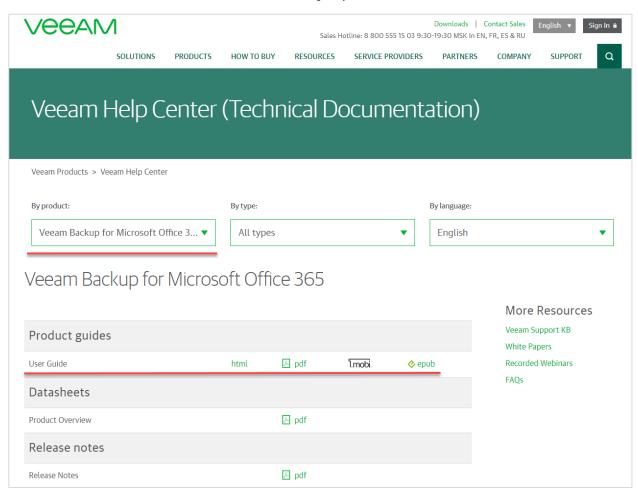
- Click F1 when working with any wizard or dialog window (including main window) this will bring up the corresponding topic of the online Help, opened with your default Internet browser.
- From the main menu, select the Online help command. This will open the online Help Center web page for the product.



- At the Veeam web site:
  - 1. Navigate to **Resources** > **Technical Documentation** to open Veeam Help Center:



2. Then from the list of products select **Veeam Backup for Microsoft Office 365** and click the icon for the **User Guide** in the format you prefer:



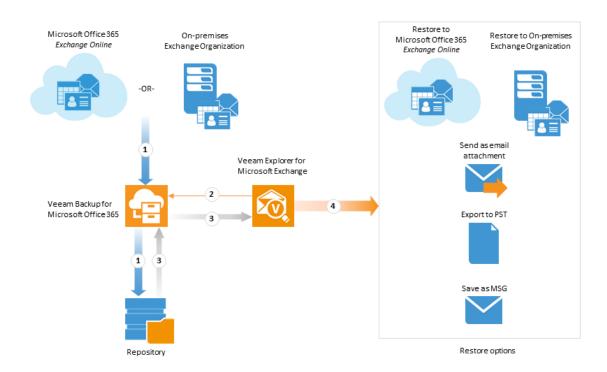
### What's New in v1.5

The following new features and enhancements are included in Veeam Backup for Microsoft Office 365 version 1.5:

- Distributed, scalable architecture for enhanced scalability in distributed environments with several Remote Offices/Branch Offices and in service providers' infrastructures:
- Backup proxies take the workload off the management server, providing flexible throttling policy settings for performance optimization.
- Support for multiple repositories streamlines data backup and restore processes.
- Support for backup and restore of on-premises and hybrid Exchange organizations allows you to choose from a variety of configurations and usage scenarios and implement those that meet your particular needs.
- Increased performance for restore operations allows for up to 5 times faster restores than in v1.0.
- Restore of multiple datastore mailboxes using Veeam Explorer for Microsoft Exchange simplifies workflow and minimizes workload for restore operators, as well as 1-Click restore of a mailbox to the original location.
- RESTful API and PowerShell cmdlets will be helpful for automation of routine tasks and integration into existing or new portals.
- Support for backup and restore in Microsoft Azure Germany and Microsoft Azure China regions.
- Many enhancements were made to the UI, including main window, wizards, dialogs, and other elements, facilitating administration of the solution.

# Mailbox Backup and Restore Process Overview

The process of backup and restore of mailbox data from on-premises or online Exchange Organization includes the following general stages:



1. Veeam Backup for Microsoft Office 365 gathers mailbox data from the Exchange organization using Exchange Web Services and PowerShell, and stores it in the repository; data is transferred using SSL. To carry out these operations automatically, an administrator creates and schedules a backup job. Each successful job run creates a restore point where the corresponding state of the mailbox datastore is kept.

#### NOTE:

A successful job run means that the job produced a successful backup of at least one mailbox.

- 2,3 A user selects the mailbox database state to work with as of the latest restore point, or as of the certain point in time. This datastore is added to the Veeam Explorer for Microsoft Exchange scope. This way, it becomes available for browsing and restore of mailbox items and folders.
- 4. Then users can utilize browsing, searching and restore capabilities of Veeam Explorer for Microsoft Exchange. They include:
  - Export of mailboxes, folders and items as Personal Folder Files (.pst)

- Saving mailbox items as Microsoft Exchange Mail Documents (.msg)
- Sending mailbox items as attachments via email
- Restoring mailboxes, folders and items to Exchange Online or on-premises Exchange Organization

### What's Inside

This section will help you to plan for deployment of the solution. It explains the architecture of Veeam Backup for Microsoft Office 365, its components and their interactions.

# **Applications and Components**

Veeam Backup for Microsoft Office 365 solution includes two applications: Veeam Backup for Microsoft Office 365 and Veeam Explorer for Microsoft Exchange.

**Veeam Backup for Microsoft Office 365** is responsible for data backup to an offline repository and for retrieving data selected for restore. It comprises the following components:

- 1. A Windows service named *Veeam.Archiver.Service* (display name *Veeam Backup for Microsoft Office 365 Service*) runs on the Veeam Backup for Microsoft Office 365 management server. It is intended to manage backup proxies and control global configuration settings. This Windows service is started automatically and runs permanently in background.
- 2. A Windows service named *Veeam.Archiver.Proxy* (display name *Veeam Backup Proxy for Microsoft Office 365 Service*) runs on the Windows machine(s) where backup proxies are deployed. Initially, it is deployed on the Veeam Backup for Microsoft Office 365 server. It is started automatically after installation and runs permanently in the background.
- 3. A UI component named Veeam. Archiver. Shell.

management server.

4. A Windows service named *Veeam.Archiver.RESTful.Service* (display name *Veeam Backup for Microsoft Office RestFul API Service*) – deployed on the Veeam Backup for Microsoft Office 365 server during the setup. This service is initially disabled and starts after a user configures the corresponding option in the UI. Veeam Backup for Microsoft Office 365 RESTful API is described in its reference documentation.

**Veeam Explorer for Microsoft Exchange** is responsible for items restore in the way preferred by the user (saving, export, sending, or restore). It can be installed together with Veeam Backup for Office 365, or on another machine. Its workflow at mail restore is described in <a href="https://helpcenter.veeam.com/docs/backup/explorers/working\_with\_vex.html">https://helpcenter.veeam.com/docs/backup/explorers/working\_with\_vex.html</a>. This application, as well as Veeam.Archiver.Shell, RESTful API and PowerShell operate as the clients of the Veeam Backup for Office 365

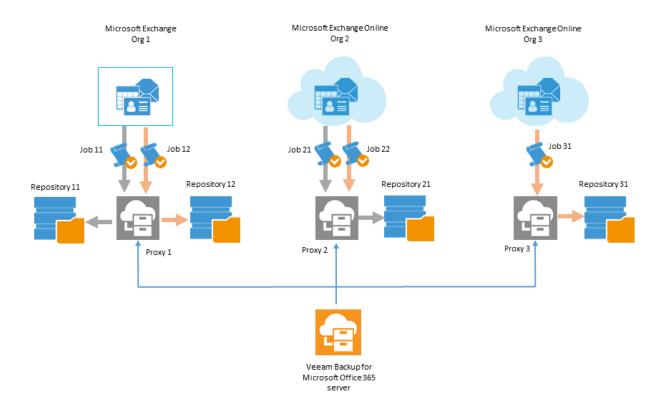
Microsoft Office 365 VBO VBO VBO Server Proxy Proxv Repository Repository Repository Repository Shell (UI) Veeam Explorer REST PowerShell for Exchange

Clients

### **Architecture**

This section describes the Veeam Backup for Microsoft Office 365 architecture in more details.

For enhanced scalability and load balance in distributed environments, Veeam offers a new scalable architecture of Veeam Backup for Office 365, as shown in the figure below:



#### Here:

- Veeam Backup for Microsoft Office 365 server the central management component that controls licenses and global settings (list of exclusions, email notifications) for the backup proxies. The RestfulAPI service also runs on that server.
- **Proxies** the components that perform data backup. A backup proxy can run on a physical or a virtual machine. Initially, the default backup proxy is installed on the Veeam Backup for Microsoft Office 365 server during the product setup, and then users can deploy more proxies to optimize data processing. Each proxy can process one or several Exchange organizations; an organization can be processed by one or several proxies (this means "many-to-many" connections between proxies and organizations).

#### IMPORTANT!

If a Veeam Backup for Microsoft Office 365 server fails, its managed proxies will wait for connection to resume for **48** hours. During this period, they will go on with data backup, so that if the server is up and running again in 2 days, all backups will become available via the management console.

- Repository a folder, local or shared (experimental mode), where backup data is stored. Each repository is associated with a backup proxy. Note that you can configure more than one repository for a proxy. For example, a proxy can back up HQ mailboxes to the Repository 11, and remote office mailboxes to the Repository 12.
- Microsoft Exchange Organization an Exchange Online, on-premises or hybrid organization whose mailbox database should be backed up. An organization can be processed by one or several backup

proxies at a time.

Job – a collection of configuration settings for organization data backup. Thus, a job represents a
backup policy for the organization mailboxes: it prescribes what mailboxes to backup, what data to
exclude, what repository storage to use (from those associated with the proxy), and specifies data
collection schedule.

For example, in the figure above you can see:

- Two jobs processed by a single proxy but using different repositories (Job 11 and Job 12).
- Two jobs processed by a single proxy (Job 21 and Job 22), both storing data to a single repository.
- A simple configuration scenario where an organization is processed by only one job using a single repository (*Job 31*)

#### TIP:

Scenarios with multiple jobs and multiple repositories may be recommended for service providers.

It may be reasonable to configure backup jobs for the organization considering geographical locations of ROBOs, administrative boundaries, business units and so on.

Organizations and their backup jobs are displayed in the **Organizations** view of the product UI. Backup proxies and their associated repositories are displayed in the **Backup Infrastructure** view of the UI. See the Getting to Know the User Interface section for details.

### How It Works

Veeam Backup for Microsoft Office 365 gathers mailbox data from an Exchange organization using Exchange Web Services and PowerShell, and stores it in the repository; data is transferred using SSL. To carry out these operations automatically, an administrator creates and schedules a backup job.

1. At the initial run of the backup job, the mailbox database file and auxiliary files are created in the corresponding subfolder (named year\_of\_last\_modification) of the repository. To create and work with that database, Veeam uses the Extensible Storage Engine for Windows (ESE engine). The initial job run creates a full backup of the whole mailbox content for selected mailboxes.

#### NOTE:

Any items configured as exclusions in job settings will not be backed up. Also, Veeam will not backup items older than the "age" specified in the retention settings.

All data during job session is transferred using the backup proxy.

2. At each subsequent backup job run, information about the datastore structure and the mailbox data gets synchronized with the current state of the Exchange Organization, using Exchange Web Services. Each successful job run creates a restore point where the corresponding state of the mailbox datastore is kept.

These are incremental backups, that is, Veeam detects modifications of mailbox data (modified and/or new mailboxes) since the last run, and performs 'incremental sync'. Database is processed using ESE engine.

This approach allows for increasing the performance and saving storage space.

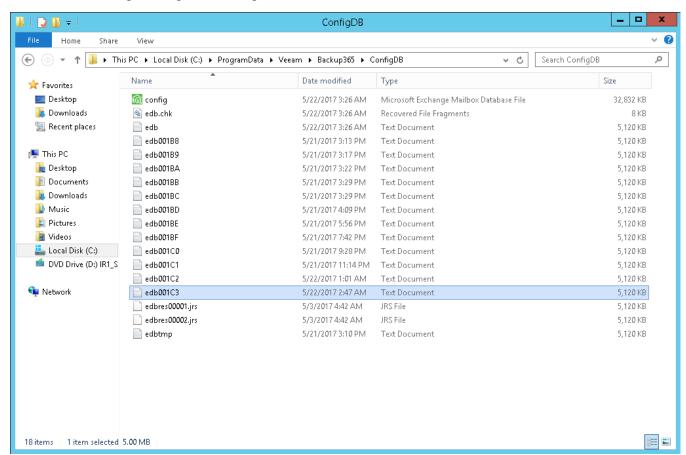
#### NOTE:

If you want to switch organization processing from one proxy to another, consider that after this new proxy assignment the organization backup job will perform full sync with Exchange server, that is, perform full backup and create the whole datastore hierarchy in the repository anew. Also, full sync will be performed after you target a backup job to another repository.

Management server controls global configuration for all backup proxies, allowing the administrator to manage the following parameters: email notification settings (including notifications on proxies that went offline), the list of exclusions, retention for job session records, and RESTful API settings.

# Configuration Database

Configuration settings for management server and proxies are stored in the management server Configuration Database located at C:\ProgramData\Veeam\Backup365\ConfigDB on that server. Database structure is accessed and managed using the ESE engine.



Configuration data is periodically replicated to proxy servers for consistency and stored to the proxy server Configuration Database located at: C:\ProgramData\Veeam\Backup365\ProxyDb. Proxy settings are stored in the *Proxy.xml* file in the same folder.

#### NOTE:

Since each management server also hosts the default proxy, the corresponding database can be found on the management server, too - at C:\ProgramData\Veeam\Backup365\ProxyDb.

When a job is executed on the proxy server, its session data is also stored to that proxy's Configuration database. This information is periodically synchronized (replicated) with the management server.

# Repository Files

Default Backup Repository is created after finishing the Veeam Backup for Microsoft Office 365 setup; its location is C:\VeeamRepository folder on Veeam Backup for Microsoft Office 365 server. This default repository is associated with the default backup proxy that runs on the Veeam Backup for Microsoft Office 365 server. You can configure additional repositories associated with backup proxies, targeting them at local folders or shared folders. Direct Access Storage is a recommended storage type; others are SAN, SMB3 (with experimental support).

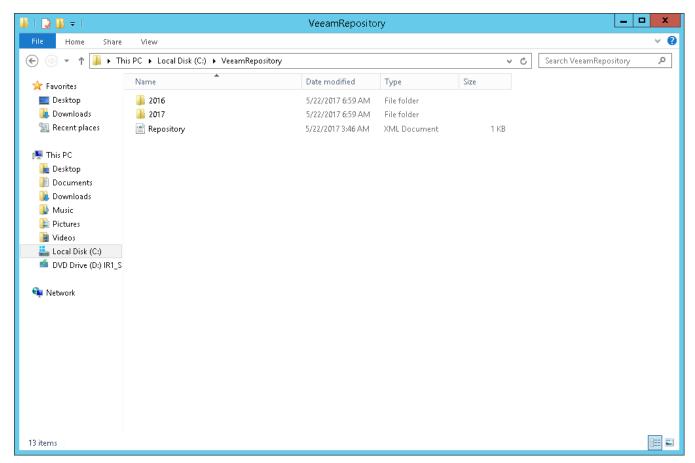
#### **IMPORTANT!**

Please refer to the System Requirements section of this guide to plan for your Veeam Backup for Microsoft Office 365 infrastructure, including repositories.

Consider that it is not recommended to target Veeam Backup & Replication repositories as Veeam Backup for Microsoft Office 365 repositories.

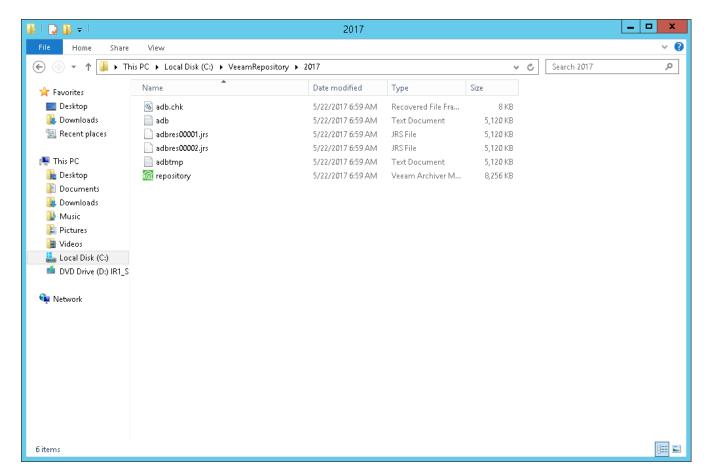
During the initial backup job run Veeam creates the backup of mail datastore with the corresponding structure (including ADB database file, log and checkpoint files) in the appropriate subfolder in the target repository. The subfolders in repository are organized and named based on the last modification time of the mail items, so that a subfolder named <code><year\_of\_last\_modification></code> stores mail items last modified in that year.

For example, an item that was last modified on 26 May 2015 will be backed up to the subfolder named **2015**, all items last modified in 2016 – to the **2016** subfolder, and so on.



Repository.xml file stores configuration settings, including proxy and management server IDs.

Inside the repository subfolders you can see a specialized set of files:



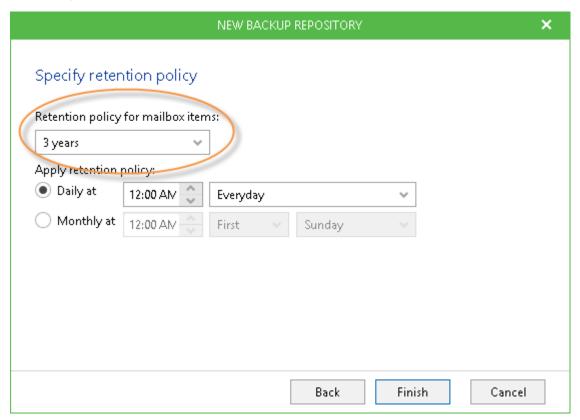
#### Here:

- The *repository.adb* file database file that stores the data of Exchange Organization mailboxes within the hierarchical structure (mailbox folders, subfolders, and items). This data is kept according to the retention policy you specify in the repository settings described later in this guide.
- Checkpoint and transaction logs files required for log replay when bringing the database to specific state.

Repository database is accessed and managed using the Extensible Storage Engine (ESE).

# How Retention Settings Are Applied

When configuring a repository, you have to specify retention policy for mailbox items. This section explains how this setting is applied to mailbox data.



Let's assume retention policy for repository was set to **3 years** (default value), and you have configured a backup job targeted at this new repository.

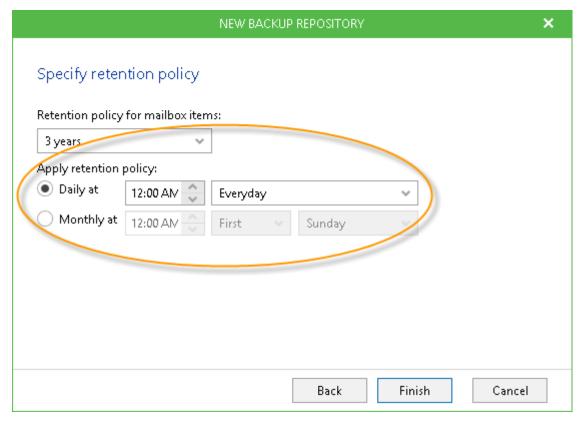
#### This will work as follows:

- 1. When the backup job starts, the program will first analyze the metadata of the mailbox items selected for backup (before copying the item data itself). In particular, it will check the last modification date for the item and calculate item "age".
  - For example, a job runs at 10:00 AM on September, 15, 2017, and last modification of an e-mail was made at 10:00 AM on September, 1, 2014. This means that e-mail "age" is 3 years and 2 weeks.
- 2. This "age" is compared against the value set in the **Retention policy for mailbox items** for repository that is, **3 years** in our example. If the "age" exceeds the specified interval, then such mail item will not be backed up to the repository.
  - In our example, the e-mail item is older than 3 years, so it will not be backed up. On the contrary, an e-mail that was last modified at *11:55 AM on September 16, 2014*, will be successfully archived to the repository.

So, this setting is first applied when the program analyzes source mailbox information before storing mailbox item data to the repository. This approach allows you to decrease the amount of data transferred from source to target.

Next, this setting (3 years or other) is applied to the backup data stored in the target repository, as follows:

1. When all mail items "young" enough for backup are stored to the target repository, the program checks the retention policy application schedule set for this repository.



This setting defines how frequently Veeam should analyze the "age" of mail data in the backup, comparing it against the specified threshold (retention period), which is 3 years in our example.

- 2. When the policy application process starts, the retention period starting point is set to the current date/time. Obsolete data is removed from the repository automatically, using the same logic as described above:
  - As for an item, it will be removed from the repository if its "age" exceeds the threshold, that is, its retention period expired.
  - As for a datastore, it will be removed from the repository when the last remaining items in the
    archive have their retention period expired, and no data arrives from Exchange server by that
    moment.

#### NOTE:

Note that this process schedule is independent from the backup job schedule.

Backup to our example, this means that the e-mail which was last modified at 11:55 AM on September 16, 2014 (and, therefore, successfully backed up by the job run at 10:00 AM on September 15, 2017) will be analyzed daily at 12:00 AM. The nearest analysis that starts at 12:00 AM on September 16, 2017, will detect that this e-mail became older than prescribed by retention policy (3 years) and must be removed from the repository.

#### **IMPORTANT!**

Retention policy is applied to backup repository, not to backup job. So, if you want data processed by different jobs to be preserved for different periods of time, then you should target these jobs to different repositories, which have appropriately configured retention policies.

For example, a company needs to preserve Customer Service mail for 3 years, and Marketing mail - for 2 years.

An IT administrator configures two repositories using Veeam Backup for Office 365:

- CS Mail, with retention policy set to 3 years and monthly application schedule
- Mrk Mail, with retention policy set to 2 years and default application schedule

Then she targets the *CS Mail Backup* job at the *CS Mail* repository, and *Marketing Mail Backup* job - at the *Mrk Mail* repository.

# Prerequisites

To provide for backup and restore of Exchange Online items, the following prerequisites are necessary:

- 1. System requirements should be met, as listed in the System Requirements section.
- 2. Check that required ports are open.
- 3. Considerations and Limitations section should be thoroughly examined before installation and usage.
- 4. Required permissions should be assigned to the accounts involved, as listed in the Permissions section.

# System Requirements

Veeam Backup for Microsoft Office 365 is shipped as a separate distribution package that can be downloaded from Veeam website. As described in this guide, the solution comprises two components, which can run on a physical or a virtual machine.

- 1. The Veeam Backup for Microsoft Office 365 component intended for data backup.
- 2. The **Veeam Explorer for Microsoft Exchange** component intended for data restore. System requirements for this component can be found in the "Working with Veeam Explorer for Microsoft Exchange" section of the Veeam Explorers User Guide.

### Veeam Backup for Microsoft Office 365 Server

Specification	Requirement	
Hardware	CPU: any modern multi-core x64 processor, 4 cores minimum.	
	<i>Memory</i> : 8 GB RAM minimum. Additional RAM and CPU resources improve backup, restore and search performance.	
	Disk Space: 500 MB for product installation and additional free disk space for archives depending on the amount of mailboxes, their change rate and the retention policy.	
OS	Only 64-bit version of the following operating systems are supported:	
	<ul> <li>Microsoft Windows Server 2016</li> </ul>	
	<ul> <li>Microsoft Windows Server 2012 R2</li> </ul>	
	<ul> <li>Microsoft Windows Server 2012</li> </ul>	
	<ul> <li>Microsoft Windows Server 2008 R2 SP1</li> </ul>	
	<ul> <li>Microsoft Windows 10</li> </ul>	
	<ul> <li>Microsoft Windows 8.x</li> </ul>	
	<ul> <li>Microsoft Windows 7 SP1</li> </ul>	
Software	Microsoft Office 365. System requirements and limitations for Office 365 can be found here.	
	Note that throttling policies for Exchange Online cannot be managed through Office 365 administrative interface, you need to contact Microsoft technical support to make changes.	
	Mail backup is supported for Microsoft Exchange 2016 or 2013. For considerations and limitations, refer to this section of the User Guide.	

Mail restore requires Veeam Explorer for Microsoft Exchange 9.6 or later.

Important! If installing to different computers, the OS version of the computer where Veeam Explorer is installed must be the same or higher than Veeam Backup for Microsoft Office 365 server OS.

To use PowerShell cmdlets for backup and/or restore, Windows PowerShell 2.0 or later is required; PowerShell 4.0 recommended.

Microsoft .NET Framework 4.5.2 or later.

Update for Universal C Runtime (CRT) in Windows: https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows

(optional) Veeam Backup & Replication or Veeam Agent for Windows for management server backup.

Application-aware processing of Veeam Backup for Microsoft Office 365 server will be supported by Veeam Backup & Replication 9.5 Update 3 and later, and Veeam Agent for

Windows 2.0 and later.

Microsoft Outlook 2010 or later (64-bit) for PST exports (optional).

#### **IMPORTANT!**

Veeam Explorer for Microsoft Exchange supported version is 9.6 or later. Earlier versions, in particular, deployed with Veeam Backup & Replication 9.5 (including Update 1 or Update 2) or with Veeam Backup for Office 365 1.0, are not supported.

### **Backup Proxy**

Backup proxy server can be a physical or a virtual machine running Windows OS, meeting the requirements listed in the table below.

Specification	Requirement	
Hardware	CPU: any modern x64 processor, 4 cores minimum.  Memory: 8 GB RAM minimum. Additional RAM and CPU resources improve backup, restore and search performance.	
OS	Only 64-bit version of the following operating systems are supported:  Microsoft Windows Server 2016  Microsoft Windows Server 2012 R2  Microsoft Windows Server 2012  Microsoft Windows Server 2008 R2 SP1  Microsoft Windows 10  Microsoft Windows 8.x  Microsoft Windows 7 SP1	

Other	Mid	crosoft .NET Framework 4.5.2 or later
	htt	ptional) Windows C Runtime and Update (UCRT) in Windows: ps://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in- ndows

#### **IMPORTANT!**

Windows server hosting a proxy must belong to the same (or trusted) domain as the Veeam Backup for Office 365 server.

### **Backup Target**

Backup can be performed to the following disk-based storage accessible from Veeam Backup for Microsoft Office 365 backup server:

- Local (internal) folder of the backup server (default target).
- Direct Attached Storage (DAS), connected to the backup server, including external USB/eSATA drives and raw device mapping (RDM) volumes.
- Storage Area Network (SAN); backup server must be connected to the SAN fabric via hardware or virtual HBA, or software iSCSI initiator.
- SMB 3.0 share (experimental support); backup server's computer account must have corresponding permissions on the network share (see the next section).

Storage volumes hosting archive repository must be formatted with NTFS or ReFS.

### Using Network Share as a Repository

Veeam Backup for Microsoft Office 365 Service operates only under the local System account. If you want to grant access to any resources to that service, you should do that for the corresponding local computer account. Do not change this account for Veeam service. By default, the Veeam Backup for Microsoft Office 365 Service operates under the *Local System* account. To be able to set a network drive\UNC path to the repository on a share, make sure this account has sufficient rights to access the corresponding network share.

#### NOTE:

You will need to type the path in the field; browsing to a network share is not supported in this version.

Considerations and limitations specific to the tool installation and operation are listed in the corresponding section of this guide.

For more information on solution components and their interaction, refer to the How It Works section.

# **Used Ports**

From	То	Protocol	Port	Notes
Veeam Backup for Microsoft Office 365 server	Microsoft Exchange Online	TCP	80, 443, optionally 587	These ports are used for connection to Microsoft Exchange Online using EWS (Exchange Web Services).  If you plan to use Exchange Online as a mail server for sending notifications, open port 587.
	Backup proxy server	ТСР	9193	This port should be open on the backup proxy server for data communication with the Veeam Backup for Office 365 server.
Clients	Veeam Backup for Microsoft Office 365 server	ТСР	9191	This port should be open on Veeam Backup for Office 365 server for data communication between server and clients: RESTful API, PowerShell and Veeam.Archiver.Shell (UI), and, optionally, connection to remote VBO365 server (if any).
Veeam Explorer for Microsoft Exchange	Veeam Backup for Microsoft Office 365 server	TCP	9194	This port should be open on Veeam Backup for Office 365 server for data communication between solution components, as well as for Veeam Explorer for Exchange RESTful API and PowerShell.
Backup proxy server	Veeam Backup for Microsoft Office 365 server	ТСР	9191	This port should be open on the Veeam Backup for Office 365 server for data communication with backup proxy.
	Microsoft Exchange Online	ТСР	80, 443	These ports are used for connection to Microsoft Exchange Online using EWS (Exchange Web Services).

### **Permissions**

This section describes permissions required for solution operation:

- For backup
- For restore

### For Backup

- 1. By default, Veeam Backup for Microsoft Office 365 (Veeam Backup for Microsoft Office 365 Service) runs under Local System account, having administrative rights on the local machine. If you want to grant access to any resources to that service, you should do that for the corresponding local computer account. Do not change this account for Veeam service.
- 2. The account used to connect to the Exchange organization (on-premises or online) for mailbox data backup should belong to that organization; having a mailbox in that organization is optional.

#### NOTE:

It is recommended to assign the *Organization Management* role to that account This will allow for automated *Application Impersonation* role assignment (see below).

- 3. This account should have the following Exchange roles:
  - Organizations Management role to manage role assignments
  - Application Impersonation role
  - View-Only Configuration role to obtain the necessary organization configuration parameters
  - View-Only Recipients role to view the list of mailbox recipients (required for job creation)

#### NOTE:

To allow for automated *Application Impersonation* role assignment, assign the *Organization Management* role to that account (*Role Management* role may be insufficient).

- 4. This account should also have the *Application Impersonation* role. This role can be assigned using any of the following methods:
  - Automatically (recommended), by selecting the corresponding option when adding Microsoft Exchange Online Organization to the solution scope.
  - Manually, by using Exchange Management PowerShell cmdlets.
  - By role assignment in Exchange Control Panel.

#### NOTE:

In case you have a new Exchange Online organization just created, you may need to use Exchange Control Panel or PowerShell cmdlet (Enable-OrganizationCustomization) to allow for role modifications and assignments. See the following Microsoft TechNet article for more information: https://technet.microsoft.com/en-us/library/jj200665(v=exchg.160).aspx.

5. If you plan to use e-mail notifications on backup job results, mailbox address that will be used as notification sender should be delegated the rights to connect to SMTP server. See the E-mail Settings for Notifications for details.

6. User account that will be used to connect to the Windows server where the backup proxy will run should have local Administrator rights for the backup proxy server. This can be the account currently logged in (default option), or another account specified using *DOMAIN\username* format. See Configuring Backup Proxies for details.

#### For Restore

- To be able to connect to Veeam Backup for Microsoft Office 365 from Veeam Explorer for Exchange, user account (either under which Veeam Explorer runs, or different account) should have **local** administrative rights on the machine where Veeam Backup for Office 365 works. See also Adding Databases to the Scope Manually.
- 2. Veeam Explorer for Microsoft Exchange can automatically resolve mailboxes (discover mailbox addresses for specified names) and filter out Exchange System Mailboxes when selecting mailboxes to restore. Therefore, the account under which Veeam Explorer runs should have sufficient rights for Active Directory access:
  - This account can be included in the domain Administrators or Organization Management group.
  - Alternatively, this account can be granted Read permission for the objectClass attribute of the Microsoft Exchange System Object container. Make sure to select the Apply these permissions to objects and/or containers within this container only option.

#### NOTE:

If Veeam Explorer account is included in the **Authenticated Users** group but is not granted this permission, it will not be able to properly handle Exchange system mailboxes objects restore. To prevent these issues, it is recommended to clear selection for such mailbox displayed at Step 2. Select Mailboxes to Restore. This will exclude system mailboxes from processing.

- 3. The account that is used for restore to a public folder should own a mailbox on the target Microsoft Exchange server.
- 4. To restore folder(s)/item(s) to the Microsoft Exchange Online Organization, the account you specify in the restore wizard will need sufficient access rights to the target. To restore to the on-premises Microsoft Exchange organization, the account you specify in the restore wizard will need corresponding access rights:
  - If you plan to use the account that owns a mailbox on target, make sure it has Full Access for that mailbox.
    - **Full Access** can be granted, for example, through impersonation, or through rights assignment with the following cmdlet:

```
Add-MailboxPermission -Identity "<target_mailbox>" -User "<user_account>" -AccessRights FullAccess -InheritanceType All
```

If you plan to use the account that does not own a mailbox on target (for example, a service account), then access rights for target mailbox should be granted through Exchange impersonation.

For example, you can run the following cmdlet:

```
New-ManagementRoleAssignment -Name "<role_name>" -Role ApplicationImpersonation -User
"<user_account>" [-CustomRecipientScope "<scope>"]
```

### Example

The following cmdlet shows how you can narrow the group of users who will be assigned the appropriate role to access the target mailbox at restore. For that, it uses the *CustomRecipientScope* parameter, with sample Organizational Unit specified as the scope:

New-ManagementRoleAssignment -Name "Exchange Test" -Role ApplicationImpersonation - User "Test User" -CustomRecipientScope "spain.local/TargetUsers"

#### NOTE:

For more details on impersonation, please refer to MSDN (http://msdn.microsoft.com/en-us/library/bb204095.aspx) and to Veeam Explorers User Guide at https://www.veeam.com/documentation-guides-datasheets.html.

### Recalling Privileges Granted Through Impersonation

When finished working with Veeam Backup for Microsoft Office 365, you may want to recall the privileges assigned to the user through impersonation. For that, you can run the following cmdlet:

Remove-ManagementRoleAssignment -Name "<role\_name>"

### Considerations and Limitations

Considerations and limitations specific for the product are listed below.

### Infrastructure and Configuration

- 1. Installing the product on Windows 2008 operating system is not supported; Windows 2008 R2 SP1 is minimal supported OS version.
- 2. Using FAT32 is not recommended due to database size limited to 4GB; NTFS and ReFS are recommended file systems.
- 3. Requirements and limitations from Microsoft can be found here: <a href="https://products.office.com/en-us/office-system-requirements/#Office365forBEG">https://products.office.com/en-us/office-system-requirements/#Office365forBEG</a>. In particular, it is impossible to modify throttling policies for Exchange Online. If you need to modify these settings, please contact Microsoft technical support.
- 4. Veeam Backup for Microsoft Office 365 management server and backup proxy should be in the same (or trusted) domain.
- 5. To provide for smooth connection with EWS for data retrieval, make sure that management server and proxy server(s) are not using proxy for the Internet connections.
- 6. Current version does not support automatic firewall rules creation and ports opening. If any of the required ports is closed, you should open it manually.
- 7. If you are running Veeam Backup for Office 365 UI (shell) and management server on different machines, then before installing a backup proxy that will be controlled by that management server, make sure that management server is trusted for delegation. See this article for details. If necessary, contact your Active Directory administrator.
- 8. Veeam Backup for Microsoft Office 365 Service operates only under the local System account. If you want to grant access to any resources to that service, you should do that for the corresponding local computer account. Do not change this account for Veeam service.
- 9. Symbolic link set as a mapped drive is not supported as repository target in this version.
- 10. If a Windows machine hosting backup proxy was renamed, this proxy will have the Offline status displayed in the management console. To work around, in the management console remove this proxy from the infrastructure configuration, then configure this proxy anew, targeting at the machine with its new name. Associated repositories will be preserved.
- 11. If the *ProxyDB* folder containing proxy configuration database is deleted from a proxy server, this proxy cannot obtain information about its associated repositories any longer. Thus, backup jobs targeted at those repositories will fail with the following error message: "*Error: Repository does not exist.*" To work around, you need to re-create this proxy.
- 12. If a proxy goes offline and then back online while processing a backup job, then job session will be displayed with duplicates in the History view and under the Last 24 hours node in the Organizations view.
- 13. A repository initially associated with the certain backup proxy can be used only by a proxy with the same or higher version of Windows OS. If you try to associate this repository with a backup proxy running an earlier Windows version (for example, after downgrading the proxy server OS due to maintenance reasons), the program will not be able to access the repository data. The error message will be issued saying:
  - "Error: JetError -514, JET\_errBadLogVersion, Version of log file is not compatible with Jet version". The reason is that Jet engine (ESE) differs for different versions of Windows OS. To be able to work with the data backed up by a proxy prior to such maintenance, make sure that the proxy has the same OS version before and after maintenance.

- 14. IPv6 addressing is not supported for Microsoft Azure China region.
- 15. Notifications on job results may not work properly for Microsoft Azure China and Germany regions.

### **Upgrade**

- 1. After upgrading from version 1.0 to 1.5, the nearest scheduled job run is displayed in the console as performing a Full sync, though actually it performs Incremental sync. The amount of transferred data, however, will show that only changes are being synchronized during that job session.
- 2. If you have edited the *Config.xml* file for Veeam Backup for Office 365 v1.0 manually, these modifications will not be preserved after the upgrade. For v1.5 you will need to make new custom settings (if necessary).
- 3. If a job was targeted at the outdated repository, the corresponding message will be displayed when the job starts. To work around the issue, upgrade the outdated repository using the Upgrade command.

### Backup

- 1. Backup of *In-Place Hold Items* is not supported for on-premises Exchange 2013 due to EWS limitations.
- 2. If you modify the retention policy tag for a folder, Veeam Backup will perform full synchronization of that folder during the next job run. The reason is that any change to retention policy makes changes to all items in the folder (modifies tag, updates last modification time). Such changes are treated by synchronization mechanism as the new item version, which, in turn, automatically initiates a full sync. To read more, see this TechNet article.

#### Restore

- 1. Bulk restore (restore of multiple objects) is not supported for public folders. Use usual (per-object) restore instead.
- 2. If you want to restore *In-Place Hold Items* or *Litigation Hold Items* to the original location (that is, original mailbox system folders), consider the limitations that exist for this kind of restore:
  - Restore of *In-Place Hold Items* is not supported for on-premises Exchange Server 2013 due to EWS limitations.
  - To restore *In-Place Hold Items* of Exchange 2016 mailboxes, these mailboxes must have *In-Place Hold* enabled and applied at least once, with *DiscoveryHolds* system folder creation. Otherwise, restore of *In-Place Hold Items* will fail with an error:

    "Failed to restore In-Place Hold Items. Restore of In-Place Hold Items into Exchange 2013 is not supported".

    For information on enabling In Place Hold and Litigation Hold, see this Microsoft TophNot.
    - For information on enabling *In-Place Hold* and *Litigation Hold*, see this Microsoft TechNet article: https://technet.microsoft.com/en-us/library/ff637980(v=exchg.160).aspx
  - Currently, Veeam Explorer for Microsoft Exchange does not support browsing and restoring items from the *Versions* subfolder of the *Recoverable Items* folder used by *In-Place Hold* and *Litigation Hold* to preserve items.

### **Automation**

1. If you want to delete an organization using PowerShell or RESTful API, then you should first disable its backup jobs. To work around, you can delete the organization using management console. Its backup jobs will be deleted automatically.

# Licensing

The product is licensed per user - that is, by the overall number of Microsoft Office 365 end-user mailboxes in all Office 365 Organizations that Veeam Backup for Microsoft Office 365 is to process. A user mailbox can be a personal mailbox, an Online Archive mailbox, or both – in any case, you will need one license file (for that user) to archive mailbox data. Note, however, that shared or resource mailboxes do not need to be licensed.

For example, if one organization added to the Veeam Backup for Office 365 comprises 200 mailboxes, and another one comprises 100 mailboxes you need to backup, then you will need 300 mailbox users to be licensed. However, if you have 200 user mailboxes, 5 shared mailboxes and 5 resource mailboxes, you will only need 200 user mailboxes to be licensed.

Veeam also counts managed mailboxes – that is, mailboxes with at least one restore point created in the past 31 days. If you do not archive a mailbox for 31 day, its license will be revoked can be applied to another mailbox.

# License Types

Full license with license expiration date set to contract end date, which is the last day of the month and normally 1 month from contract start date. This license type should be distributed only to service providersThe following types of licenses are supported:

- Subscription paid, fully-functional license that expires at the end of the subscription term, which is 1 or 3 years from contract start date (depending on subscription length).
- Rental paid, fully-functional license that expires at the end of the contract, which is the last day of the month and normally 1 month from the contract start date. This license type is distributed only to service providers.
- Not For Resale (NFR) free, fully-functional license that can be used for product demonstration, training and education. This license is not for re-sale or other commercial use.
- Evaluation free, fully-functional license that can be used for evaluation and testing purposes only.

### Subscription License

To ensure a smooth license update and provide sufficient time to install a new license file, Veeam offers a grace period. The grace period is a period of time during which the product keeps working in a full-version mode after the license has expired, or the number of managed mailboxes exceeds the number covered by the license.

### License Expired

The information below refers to the case when your subscription license has expired, describing the behavior in grace and post-grace periods.

Grace Period	
Length 1 month	
Product operation	Not affected.

Notification message	<ul> <li>The following message will be displayed in the UI:</li> <li>"Your subscription license has expired and needs to be renewed. Managed mailboxes will continue to be processed for the duration of grace period."</li> <li>Up to the last week of the grace period, the message box will be displayed in the main window once a week (when the UI is first time opened).</li> <li>During the last week, the message box will be displayed in the main window each time the UI is opened.</li> </ul>
	Post-Grace Period
Product operation	<b>Backup:</b> processing of all mailboxes will be stopped; scheduled jobs will be terminated with failure; the corresponding message will be written to the log (see above).
	Restore: not affected.
Notification message	<b>UI:</b> The following message will be displayed in the UI each time it is opened: "Your license has expired, and your grace period is over. Managed mailboxes will no longer be processed. To continue using the product, obtain a new license."
	Job log: The following message will be written to the job log: "Your license has expired, and your grace period is over. Managed mailboxes will no longer be processed."

### License Exceeded

The information below refers to the case when your subscription license was exceeded, describing the behavior in grace and post-grace periods.

Grace	e Period	
Length		2 months
If exceeded by up to 20 mailboxes or up to 20% of the license count (whichever is greater)	Product operation	Backup: additionally process not more than 20 mailboxes or 20% of the license count (whichever number is greater).  Restore: not affected.

	Notification	The following message will be displayed in
	message	the UI:  "Your license limit has been exceeded by <x> mailboxes. You have <y> days  remaining to obtain additional licenses  before mailboxes exceeding the license  count are no longer processed."</y></x>
		<ul> <li>A message box will be displayed when you open the UI first time after exceeding the license count.</li> <li>Then the message box will be displayed in the main window once a week and/or after any further increase in the number of managed mailboxes exceeding the license count.</li> </ul>
If exceeded by more than 20 mailboxes or more than 20% of the license count (whichever is greater)	Product operation	Backup: continue to process these 20 (or 20%) extra mailboxes according to FIFO queue logic (that is, "first in - first out"); no more additional mailboxes will be processed.
		Restore: not affected.
	Notification message	UI: the following message will be displayed each time the UI is opened: "Your license limit has been exceeded by more than X mailboxes. Additional mailboxes exceeding this limit will not be processed. To manage these mailboxes, please obtain additional licenses."
		Job log: the following message will be written: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed"

Post-Grace Period		
Product operation	Backup: processing of excessive mailboxes (in FIFO queue) will be stopped; no more extra mailboxes will be queued for processing; corresponding messages will be displayed in the UI and written to the log (see below).  Restore: not affected.	
Notification message	UI: The following message will be displayed in the UI each time it is opened: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed. To manage these mailboxes, please obtain additional licenses."	

	Job log: The following message will be written: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed"
--	---

### Rental License

To ensure a smooth license update and provide sufficient time to install a new license file, Veeam offers a grace period. The grace period is a period of time during which the product keeps working in a full-version mode after the license has expired, or the number of managed mailboxes exceeds the number covered by the license.

### License Expired

The information below refers to the case when your rental license has expired, describing the behavior in grace and post-grace periods.

Grace Period				
Length	1 month			
Product operation	Not affected.			
Notification message	The following message will be displayed in the UI:			
	"Your license has expired and needs to be renewed. Managed mailboxes will continue to be processed for the duration of grace period."			
	<ul> <li>Up to the last week of the grace period, the message box will be displayed in the main window once a week (when the UI is first time opened).</li> </ul>			
	<ul> <li>During the last week, the message box will be displayed in the main window each time the UI is opened.</li> </ul>			
Post-Grace Period				
Product operation	<b>Backup:</b> processing of all mailboxes will be stopped; scheduled jobs will be terminated with failure; the corresponding message will be written to the log (see below).			
	Restore: not affected.			
Notification message	UI: The following message will be displayed in the UI each time it is opened: "Your license has expired, and your grace period is over. Managed mailboxes will no longer be processed. To continue using the product, obtain a new license."			
	Job log: The following message will be written to the job log: "Your license has expired, and your grace period is over. Managed mailboxes will no longer be processed."			

### License Exceeded

The information below refers to the case when your rental license was exceeded, describing the behavior in grace and post-grace periods.

Grace Period				
Length	1 months			
If exceeded by up to 20 mailboxes or up to 20% of the license count (whichever is greater)	Product operation	<b>Backup:</b> additionally process not more than 20 mailboxes or 20% of the license count (whichever number is greater).		
		Restore: not affected.		
	Notification message	The following message will be displayed in the UI:  "Your license limit has been exceeded by <x> mailboxes. You have <y> days remaining to obtain additional licenses before mailboxes exceeding the license count are no longer processed."</y></x>		
		<ul> <li>A message box will be displayed when you open the UI first time after exceeding the license count.</li> <li>Then the message box will be displayed in the main window once a week and/or after any further increase in the number of managed mailboxes exceeding the license count.</li> </ul>		
If exceeded by more than 20 mailboxes or more than 20% of the license count (whichever is greater)	Product operation	<b>Backup:</b> continue to process these 20 (or 20%) extra mailboxes according to FIFO queue logic (that is, "first in - first out"); no more additional mailboxes will be processed.		
		Restore: not affected.		
	Notification message	UI: the following message will be displayed each time the UI is opened: "Your license limit has been exceeded by more than X mailboxes. Additional mailboxes exceeding this limit will not be processed. To manage these mailboxes, please obtain additional licenses."		
		Job log: the following message will be written: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed"		

Post-Grace Period		
Product operation	<b>Backup:</b> processing of excessive mailboxes (in FIFO queue) will be stopped; no more extra mailboxes will be queued for processing; corresponding messages will be displayed in the UI and written to the log (see below).	
	Restore: not affected.	
Notification message	<b>UI:</b> The following message will be displayed in the UI each time it is opened: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed. To manage these mailboxes, please obtain additional licenses."	
	Job log: The following message will be written: "Your license limit has been exceeded by X mailboxes, and your grace period for exceeding the license count is over. Mailboxes exceeding the license count will no longer be processed"	

#### NFR License

Not For Re-sale (NFR) license is a free, fully-functional license that can be used for product demonstration, training and education.

### License Expired

The information below refers to the case when your NFR license has expired.

Before expiration				
Time before NFR license expiration	1 month			
Product operation	Not affected.			
Notification message	The following message will be displayed in the UI:  "Your NFR license will expire in X days. Don't wait! Purchase a production license today.  It's easy – simply submit a sales inquiry on our website."			
	<ul> <li>Up to the last week of the month, the message box will be displayed in the main window once a week (when the UI is opened).</li> <li>During the last week of the month, the message box will be displayed in the main window each time the UI is opened.</li> </ul>			
After expiration				
Product operation	Backup: processing of mailboxes will be stopped.			
	Restore: not affected.			
Notification message	UI: the following message will be displayed each time the UI is opened:  "Your NFR license has expired and needs to be renewed. Managed mailboxes will no longer be processed. To continue using the product, obtain a new license."			
	Job log: the following error message will be written to the log:  "Your NFR license has expired and needs to be renewed. Managed mailboxes will no longer be processed."			

#### License Exceeded

The information below refers to the case when your evaluation license was exceeded.

After exceeding		
Product operation	Do not process mailboxes exceeding the licensed count (number of user mailboxes).	

### **Evaluation License**

The evaluation license is a free, fully-functional license that can be used for evaluation and testing purposes only.

### License Expired

The information below refers to the case when your evaluation license has expired.

Before expiration			
Time before license expiration	1 month		
Product operation	Not affected		
Notification message	The following message will be displayed in the UI:  "Your trial license will expire in X days. Don't wait! Purchase a production license today.  It's easy – simply submit a sales inquiry on our website."		
	<ul> <li>Up to the last week of the month, the message box will be displayed in the main window once a week (when the UI is opened).</li> <li>During the last week of the month, the message box will be displayed in the main window each time the UI is opened.</li> </ul>		
After expiration			
Product operation	Backup: processing of mailboxes will be stopped.		
	Restore: not affected.		
Notification message	UI: the following message will be displayed each time the UI is opened:  "Your trial license has expired. Managed mailboxes will no longer be processed. To purchase a production license, submit a sales inquiry on our website."		
	Job log: the following error message will be written to the job log:  "Your trial license has expired. Managed mailboxes will no longer be processed."		

#### License Exceeded

The information below refers to the case when your evaluation license was exceeded.

After exceeding		
Product operation	Do not process mailboxes exceeding the licensed count (number of user mailboxes).	

# Working with Veeam Backup for Microsoft Office 365

This section describes how to install and configure Veeam solution and then use it to backup and restore Exchange items in your Microsoft Office 365 organization.

# Deployment

This section describes common deployment scenarios and various tasks related to product setup. It is recommended that when preparing for the product installation, you fill in the Installation Checklist on page 124 (Appendix) of this document.

## **Deployment Scenarios**

Veeam Backup for Microsoft Office 365 can be installed on a physical or virtual machine. The tool can be downloaded from the Veeam website as a ZIP archive. This archive contains two versioned MSI files - one for Veeam Backup for Microsoft Office 365, and another for Veeam Explorer for Microsoft Exchange.

The following deployment scenarios can be implemented:

- 1. Install two components of the product together on the same machine.
- 2. Install two components on different machines. If so, consider that you will need to use application launcher to start the component on the remote machine. For details, refer to the Exploring Backups section of this guide.

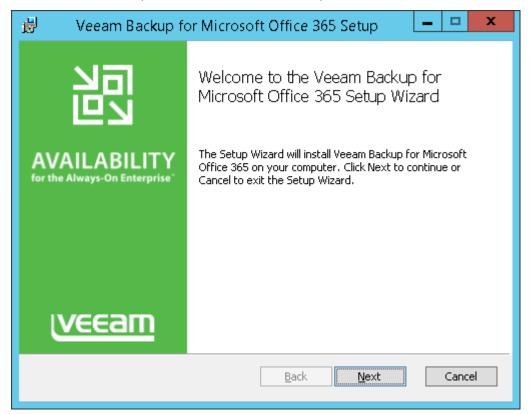
#### IMPORTANT!

- 1. If you have participated in the public beta testing program for Veeam Backup for Microsoft Office 365, be sure to uninstall the pre-release versions of Veeam Backup for Microsoft Office 365 and Veeam Explorer for Microsoft Exchange, and delete the content of archive repository folder as well as C:\ProgramData\Veeam\Backup365 folder before running the setup.
- If you have Veeam Backup & Replication deployed in your environment, consider that to use Veeam Explorer for Microsoft Exchange for restore of Veeam Backup for Microsoft Office 365 v1.5 backups you will need Veeam Backup & Replication 9.5 Update 3 or later. Backward compatibility is not supported.

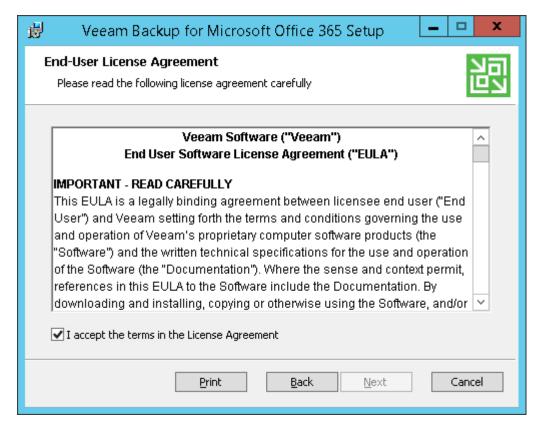
# Installing Components for Backup

Install Veeam Backup for Microsoft Office 365 application that will perform data backup. For that:

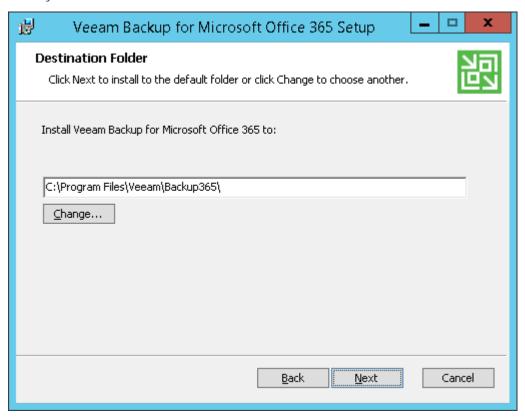
- 1. Download the ZIP archive from Veeam website, and unpack it to a folder of your choice.
- 2. Run the Veeam Backup for Microsoft Office 365 setup.



- 3. At the **License Agreement** step of the wizard, you must accept the license agreement for the product. If you do not accept the license agreement, you will not be able to pass to next step of the setup wizard.
  - o Read the license agreement.
  - Select the I accept the terms in the license agreement option and click Next.



4. By default, Veeam Backup for Microsoft Office 365 is installed to the C:\Program Files\Veeam\Backup365\ folder. To install to another location, at the **Destination Folder** step of the wizard, click **Change**, then in the **Change Destination Folder** window specify the destination folder you need.

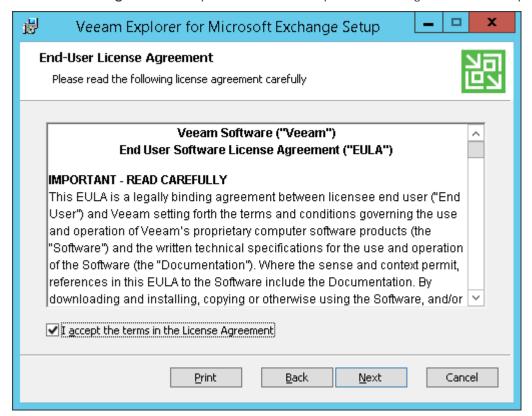


5. At the next step, click **Install** to begin the installation. (To get to the previous steps of the wizard, click **Back**; to quit the setup, use **Cancel**.) Wait for the installation process to complete and click **Finish** to close the setup wizard.

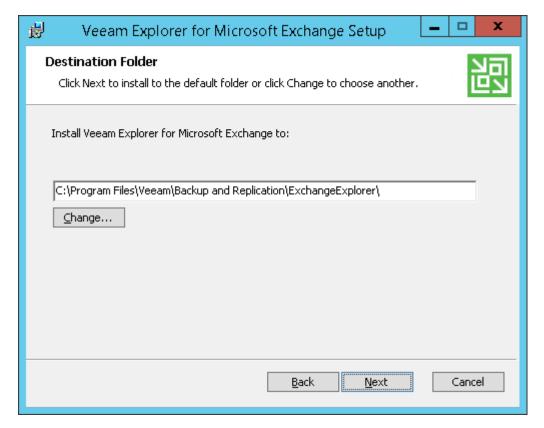
# Installing Components for Restore

To install Veeam Explorer for Microsoft Exchange:

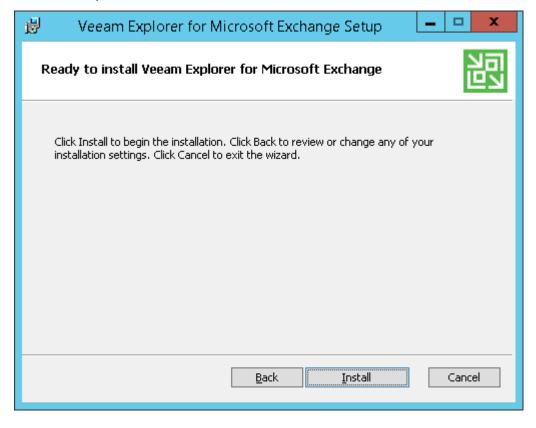
- 1. Run the Veeam Explorer for Microsoft Exchange setup.
- 2. At the License Agreement step of the wizard, accept the license agreement for the product.



3. By default, Veeam Explorer for Microsoft Exchange is installed to the C:\Program
Files\Veeam\Backup and Replication\ExchangeExplorer\ folder. To install to another
location, at the **Destination Folder** step of the wizard click **Change**, then in the **Change Destination Folder** window specify destination folder you need.



4. At the next step, click **Install** to begin the installation. (To get to the previous steps of the wizard, click **Back**; to quit the setup, use **Cancel**.) Wait for the installation process to complete and click **Finish** to close the setup wizard.



# Re-installing Management Server

If you want to re-install a management server (for example, in case of hardware upgrade), then you can do the following:

- 1. Document your Veeam Backup for Office 365 infrastructure, including proxy servers and repositories.
- 2. Uninstall the management server, as described in the section below.
- 3. Run the Veeam Backup for Office 365 setup to install the management server.
- 4. Then add the existing proxy servers anew, using the Proxy wizard, as described in this document.

#### NOTE:

These servers already have the necessary software components installed, and you will just need to add them in the management console.

5. The program will prompt for adding the repositories, too.

## Upgrading the Program

Upgrade is supported for product version 1.0 and 1.0 Update 1 (Veeam Backup for Microsoft Office 365 - build 1.0.0.912, Veeam Explorer for Microsoft Exchange - build 9.5.0.912).

#### IMPORTANT!

No upgrade options will be supported for beta versions of the program.

### Planning for Upgrade

When planning for upgrade from version 1.0 to version 1.5, consider the following:

- 1. Backup job settings and global configuration options (including notifications, file exclusions, and so on) will be preserved.
- 2. However, if you have edited the Config.xml file manually, these modifications will not be preserved after the upgrade.
- 3. When the upgrade process starts, it will stop all backup jobs (including those running on schedule).

#### Re-using Servers

If you want to install the GA (release) version of the product to the machine that used to host Veeam Backup for Office 365 BETA management server, proxy or backup repository, you must do the following:

- 1. Stop and disable all the running jobs.
- 2. Remove remote backup proxies by using the **Remove Proxy** command. Keep the default proxy it will be removed later when you run the **Uninstall** command for the program).
- 3. Delete the default repository configuration data from configuration database by using the **Remove Repository** command.
- 4. Uninstall the pre-release version of the program, using the **Uninstall** command in the **Control Panel** > **Programs and Features**:
  - To uninstall Veeam Backup for Microsoft Office 365, select Veeam Backup for Microsoft
     Office 365 in the list of installed programs.
  - To uninstall Veeam Explorer for Microsoft Exchange, select Veeam Backup & Replication in the list of installed programs.
- 5. Manually delete the default repository content (folders and files) from the corresponding target location. Remember that release version is not compatible with pre-release repository.
- 6. Manually delete the content of C:\ProgramData\Veeam\Backup365 folder.

#### IMPORTANT!

If you try to deploy the release version of the product to the same machine where BETA version used to run without taking these steps, the setup may fail with the following error: "Service 'Veeam Backup for Microsoft Office 365 Service' (Veeam.Archiver.Service) failed to start. Verify that you have sufficient privileges to start system services".

### **Upgrade Procedure**

To upgrade your deployment, install Veeam Backup for Microsoft Office 365 v1.5, as described in this document:

- 1. Installing Components for Backup
- 2. Installing Components for Restore

#### **Upgrading Repository**

Version 1.5 allows you to upgrade certain repositories using the **Upgrade Repository** command. For example, if you add a v1.0 repository to v1.5 management server, this repository will be displayed in the navigation tree as the *Out of date* object. Select this object and run the **Upgrade Repository** command for it. The progress indicator (in percent) for repository upgrade will be shown in the preview pane. When the upgrade is completed, this repository will be displayed in the navigation tree as usual.

# Uninstalling the Program

To uninstall a Veeam Backup for Microsoft Office 365 management server, do the following:

- 1. Stop and disable all backup jobs; close restore sessions in Veeam Explorer (if any).
- 2. In the management console, delete all remote proxies this will remove them from Configuration database.
- 3. On the management server, uninstall the product, using the **Uninstall** option of the **Control Panel** > **Programs and Features**. This will uninstall both management server and default (local) proxy.

Note that repository data will be preserved in the target locations.

To uninstall Veeam Explorer for Microsoft Exchange, in the **Control Panel** > **Programs and Features** select **Veeam Backup & Replication** (this display name appears here for Veeam Explorer) and use the **Uninstall** option.

# Starting the Program

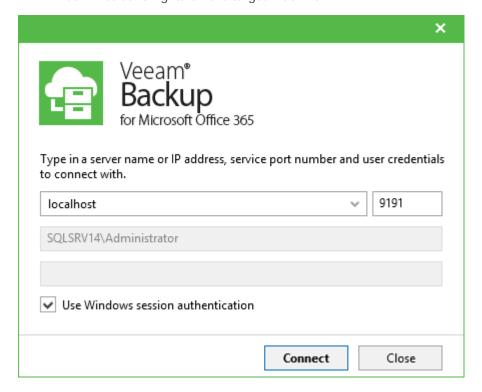
Installed applications will appear in the list of application programs and on your Desktop. In the **Control Panel** > **Programs and Features** they will appear as **Veeam Backup for Microsoft Office 365** and **Veeam Backup & Replication**, as Veeam Explorer is also a part of it.

If you have multiple instances of Veeam Backup for Office 365 installed on different machines, you can connect remotely to the necessary instance. For that, on any machine where Veeam Backup for Microsoft Office 365 is installed, in the list of application programs select the application launcher:



#### Then do the following:

- 1. Specify the server name or IP address, service port number (default is **9191**) and the user account that be used to access that server.
- 2. You can select to **Use Windows credentials** if current account has sufficient permissions, that is, local administrative rights on the target machine.



You can also start Veeam Backup for Microsoft Office 365 from a remote machine, using the command line with

the following parameters:

- path\_to\_UI > path to the UI component, by default C:\Program
  Files\Veeam\Backup365\Veeam.Archiver.Shell.exe
- /host=<server> name or IP address of the machine where Veeam Backup for Microsoft Office 356 was installed

Make sure that current account has local administrative rights on the machine where you want to start the program.

Remember to install the license, as described here.

# Getting to Know the User Interface

#### Main Window

On the left of the main window, there is the navigation pane that enables you to easily access the entities you want to work with. The preview pane (on the right) displays details for the selected entities - for example, if you select an organization, all information about jobs that process its mailboxes will be available in the preview pane.

You can switch between the **Organizations**, **Backup Infrastructure** and **History** views, using the tabs below the navigation pane.

Operation commands are organized into logical groups and collected under tabs on the ribbon. The ribbon is displayed at the top of the main application window.



For example, the following commands are available in the certain views:

- The **Home** ribbon tab provides quick access to some common operations for example, adding an organization to the program scope, or removing it. This tab is visible in all views.
- The Jobs ribbon tab contains commands specific for the jobs. It will be displayed after you select the job node organization node in the navigation pane.
- The Backup Proxy ribbon tab contains commands specific for backup proxies and repositories. It will be displayed after you switch to the Backup Infrastructure view.

#### TIP:

Commands for operations with selected entity (organization, job and others) are also available in that entity's shortcut menu.

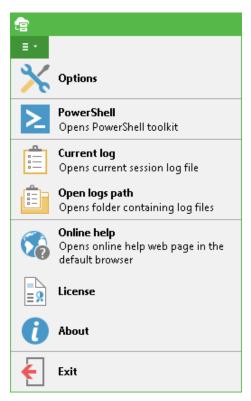
The status bar in the bottom shows the following information:

License used – this counter corresponds to the number of mailboxes that have at least one restore point
created in the past 31 days. If you do not archive a mailbox for 31 day, its license will be revoked (freed
up) and can be applied to another mailbox.

- Connected to connected Veeam Backup for Office 365 server name.
- Support the number of remaining days of support.

#### Main Menu

The main menu of Veeam Backup for Microsoft Office 365 can be opened by clicking its icon in the top left corner of the main window. The menu contains commands related to general application settings.



In particular, you can carry out the following:

- Configure program options, as explained later in this guide
- Open Windows PowerShell to run Veeam Backup for MS Office 365 cmdlets, as described in the documentation (PowerShell Reference)
- Open current log file or folder that contains all log files
- Access online Help

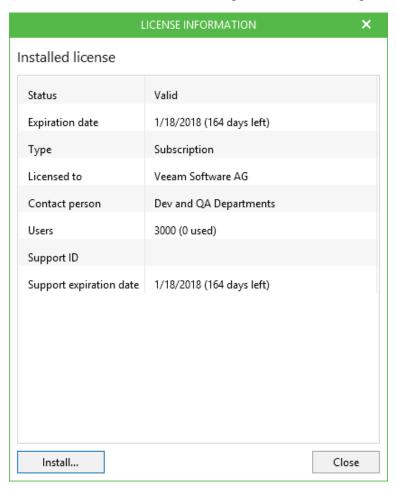
Note that you can access the program Help in any of the following ways:

- Click **F1** when working with any wizard or dialog window (including main window) this will bring up the corresponding topic of the online Help, opened with your default Internet browser.
- o From the main menu, selecting the **Online help** command.
- Also, you can use the Technical Documentation page on the Veeam web site, as said in the section above.
- Install or view the product license
- View information about the program
- Exit the program

# License Management

After you deploy Veeam Backup for Microsoft Office 365, you should install the product license. Do the following:

- 1. The program will prompt for license installation at the first start. Follow the steps described below. Alternatively, you can open the main menu and select the **License** command (see Getting to Know the User Interface for more information.)
- 3. In the **License Information** dialog displayed, click **Install** and specify the full path to the required .LIC file.
- 4. Click **Close** to save the settings and close the dialog.



Take similar steps if you want to change the license file - for example, after purchasing a commercial license instead of free.

To view license information, select the **License** command from the main menu. Then you can examine the following: license status, expiration date, license type, contact person's name, the number of licensed users, support ID and support expiration date.

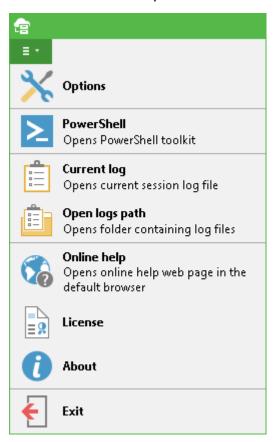
#### NOTE:

- If you do not install any license at all, the backup jobs will terminate with an error message written in the session log.
- If the license expires, the corresponding warning message will be written in the session log until you install a new license. See the above sections for details.
- To read more about product licensing, please refer to the Veeam website.

# Configuring Program Options

This section describes configuration settings of Veeam Backup for Microsoft Office 365. To read about Veeam Explorer for Microsoft Exchange configuration, refer to the Veeam Explorers User Guide at Veeam Help Center.

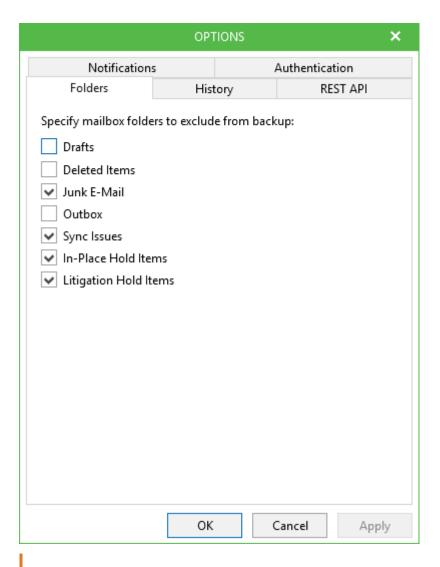
To work with Veeam Backup for Microsoft Office 365, you should configure program options. For that, open the main menu and select **Options**.



### **Options Dialog**

In the **Options** dialog, you can do the following:

- On the Folders tab select mailbox folders to exclude from processing. See the Folders to Exclude section.
- On the History tab specify retention for sessions data. See the Retention for Session Data section.
- On the REST API tab configure the settings required for RESTful API usage. See the RESTful API Settings section.
- On the Notifications tab configure e-mail settings for notifications. See the Notification Settings section.
- On the **Authentication** tab configure authentication settings for tenants to access their backup data. See the **Authentication Settings** for Tenants section.

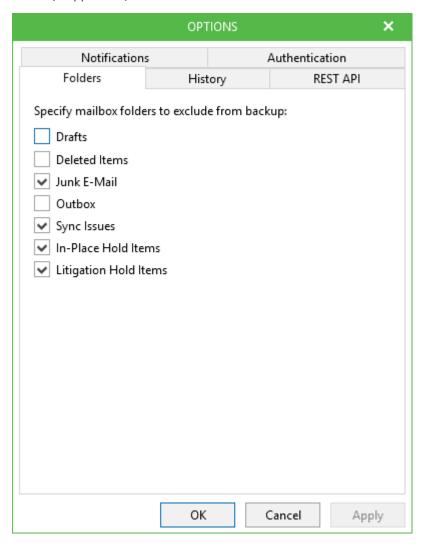


#### IMPORTANT!

All these settings are global, that is, they will be applied to all jobs throughout the organization (or organizations) added to the scope.

### Folders to Exclude

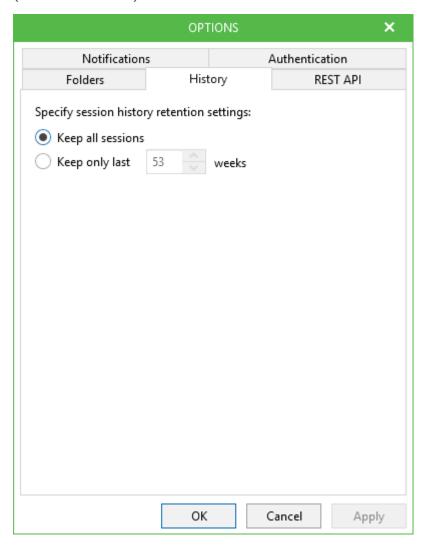
By default, Veeam Backup for Microsoft Office 365 will back up all folders from users' mailboxes. However, on the **Folders** tab of the **Options** dialog, you can select which mailbox folders should be excluded from processing - this can be, for example, *Junk E-Mail*. Data from the excluded folders will not be stored in the repository. By default, the following folders are excluded: *Junk E-Mail*, *Sync Issues*, *In-Place Hold Items* and *Litigation Hold Items* (if applicable).



# **Retention for Session Data**

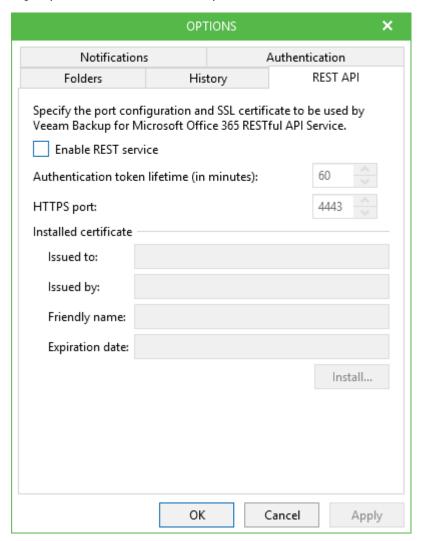
On the **History** tab, you can specify the period for which Veeam Backup for Microsoft Office 365 should keep historical job sessions data (available in the **History** view).

You can select to **Keep all sessions**, or specify the desired number of weeks where minimal allowed is 1 week (default is **53** weeks).



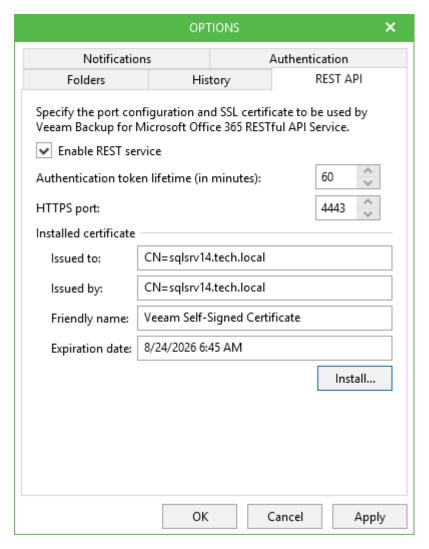
# **RESTful API Settings**

If you plan to utilize Veeam Backup for Microsoft Office 365 RESTful API, then go to the REST API tab:



Here you should specify the following settings:

- 1. Select the **Enable REST Service** check box.
- 2. Authentication process uses OAuth mechanism, and here you can specify lifetime value for the authentication token provided by server to the client. Default is **60** minutes.
- 3. Server and client communicate using HTTPS protocol, so the corresponding port should be open. Default HTTPS Port number is 4443.
- 4. Communication between server and client is secured with the SSL protocol. For SSL connections, Veeam Backup for Microsoft Office 365 RESTful API uses SSL certificate. You should provide the path to certificate file in the section. For that, in the Installed certificate section of the Options dialog, you should click Install to launch the Select Certificate wizard.
- 5. After you have located the certificate file, its data will be displayed in the corresponding fields.

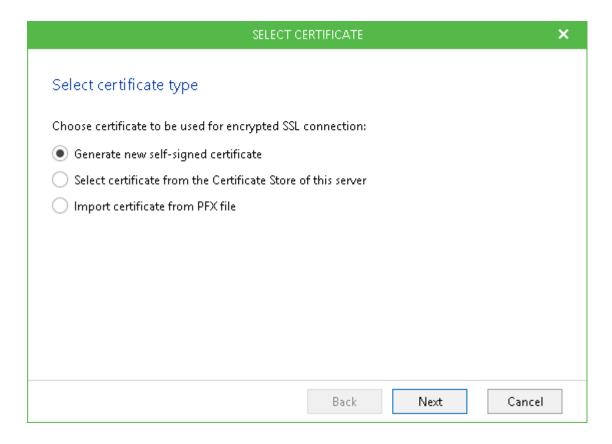


6. When you click **Apply**, the *Veeam Backup for Microsoft Office 365 RESTful API Service* (inactive by default) will be started. This service will run in the background, supporting server-client communication.

### Installing SSL Certificate

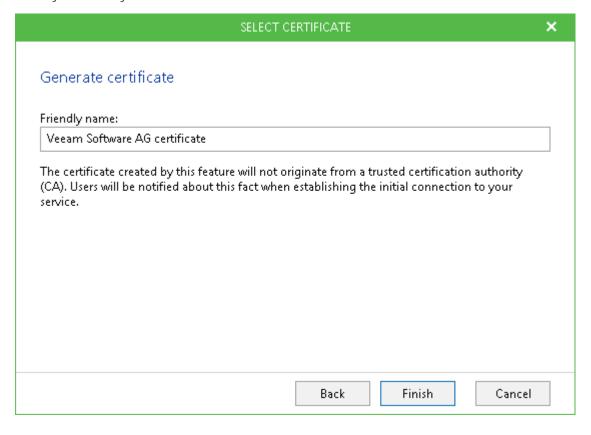
At the first step of the **Select Certificate** wizard, specify what kind of certificate you want to use for encrypted SSL connections. You can select any of the following options:

- Generate new self-signed certificate
- Select certificate from the Certificate Store of this server
- Import certificate from the PFX file



### Generating a New Certificate

With this option selected, you will be taken to the corresponding step of the wizard. Here you should enter a friendly name for your certificate. Default is Veeam Software AG certificate.



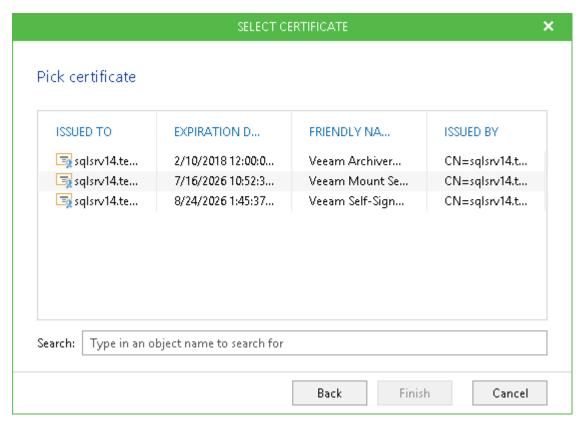
#### NOTE:

The certificate created by this feature will not originate from a trusted Certification Authority (CA). Users will be notified about this fact when establishing the initial connection to your service.

After you click **Finish**, the new certificate will be generated and its data will be displayed in the corresponding fields in the **REST API** tab of the **Options** dialog.

### Selecting a File from Certificate Store on Local Server

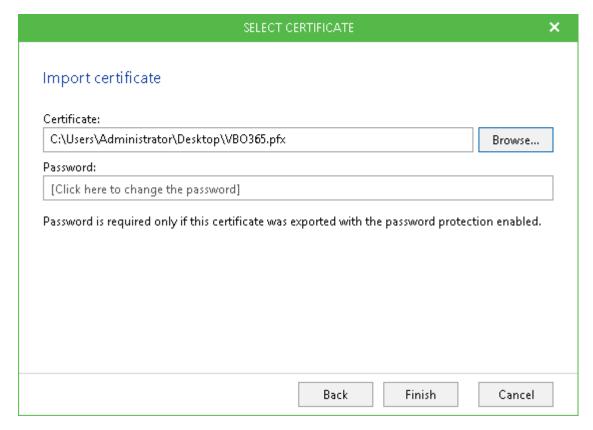
With this option selected, you will be taken to the **Pick certificate** step. A list of certificates available at the Certificate Store on the management server will be shown. Select the one you need; if necessary, use the **Search** field.



Click Finish to close the wizard and return to Options.

### Importing Certificate from File

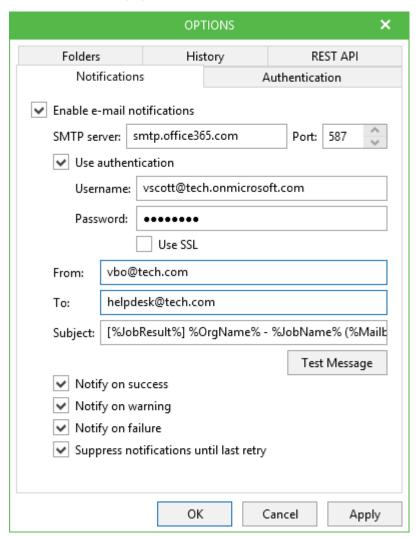
With this option selected, you will be taken to the **Import certificate** step. Specify the path to the .PFX file you need. If this certificate was exported with password protection enabled, you will also need to enter password.



After that, click **Finish** to close the wizard and return to **Options**.

## **Notification Settings**

You can configure Veeam Backup for Microsoft Office 365 to send e-mail notifications on the job results. For that, in the Options dialog, go to the **Notifications** tab.



#### NOTE:

E-mail settings are global, that is, they will be applied to all backup jobs configured for all organizations added to Veeam Backup for Microsoft Office 365.

- 1. Select the **Enable e-mail notifications** option.
- 2. In the **Server settings** section, specify SMTP server that will be used to send notifications. By default, the program will use the standard connection to **smtp.office365.com** via port **587**. To read more about Office 365 standard SMTP connection settings, refer to this Microsoft article.
- 3. If necessary, select the **Use authentication** option. In the **Username** field, specify the mailbox user that will be used for connection with SMTP server, and enter password.
- 4. For a secure connection, select **Use SSL**.
- 5. Specify the **From** address that will be used as notification sender. Make sure this mailbox user is delegated the rights to connect to SMTP server for that, you can open Exchange Administration Center and configure **Send As** *Username* delegation for it. Here *Username* is the one you specified at step 5 of this procedure.

- 6. Specify the **To** valid e-mail address for notification recipient. If specifying multiple addresses, use the semicolon.
- 7. By default, notification **Subject** will look as follows:

[%JobResult%] %OrgName% - %JobName% (%MailboxCount% mailboxes), %Issues% issues
Here:

- %JobResult% job result, that is, status after completion (Success, Warning, Failed)
- %OrgName% Office 365 organization for which the job was configured
- %JobName% job name
- *%MailboxCount%* a number of processed mailboxes
- %Issues% a number of mailboxes whose processing completed with Failed or Warning status
- %Time% date and time of backup job completion
- 7. To verify that if you have configured email settings correctly, use the **Test Message** button.

#### IMPORTANT!

The **Test Message** button only allows for verifying email settings you have entered; the message in this case will be sent from the management server. However, actual notifications on the job results will be sent by proxy server assigned to process this job. Therefore, if a proxy server goes down, you will stop receiving job notifications from it.

To read more about offline proxy status, please refer to the section above.

- 8. By default, notifications will be sent on all completion results, including *Success, Warning* and *Failure*. To turn off notifications for the certain results, clear the corresponding check box.
- 9. If you configure the backup job(s) to perform retry attempts, then you can use the **Suppress notifications until last retry** option (enabled by default). In this case, notifications will be only sent after the last attempt:
  - If the job fails, then on the last retry
  - If the job completes with Success or Warning, then on the last completion status
  - If the job is scheduled to Terminate job if it runs longer than <interval>, then on the last attempt within that interval

#### NOTE:

For details on job scheduling options, refer to Creating a Backup Job section of this guide.

10. Click **OK** to save the settings and close the dialog.

# **Authentication Settings for Tenants**

If your company is providing backup and restore services, you may need to allow your tenants to explore and recover their backup data using Veeam Explorer for Microsoft Exchange deployed on the tenant side. Possible interaction scenario is described below.

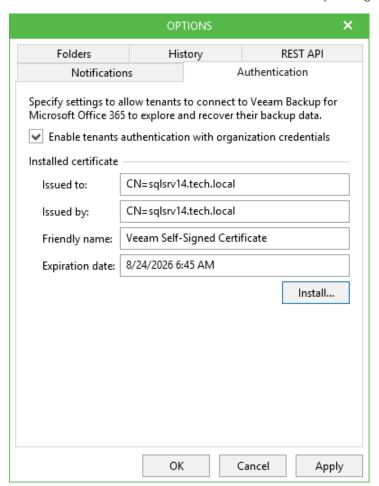
#### On the Provider Side

An IT administrator on the provider side does the following:

- Configures Veeam Backup for Office 365 server to authenticate tenants who log on with their Exchange organization credentials, using SSL. Configuration procedure is described below in this section. Exchange organization credentials must be the same as specified when adding organization to the Veeam Backup for Office 365 infrastructure. See this section for details.
- 2. Provides the tenant with the name and\or IP address of the Veeam Backup for Office 365 host\endpoint responsible for storing tenant's mail data.

To enable tenant authentication with organization credentials and instruct Veeam Backup for Office 365 to use SSL certificate, do the following:

- 1. Go to the **Authentication** tab of the program **Options**.
- 2. Select the Enable authentication with organization credentials.
- 3. Click **Install** to specify the SSL certificate. You can generate a new certificate or select an existing one, using the same Select Certificate wizard as described in this section. When you finish the wizard, the certificate information will be shown in the corresponding fields of the dialog.



#### On the Tenant Side

An IT administrator on the tenant side does the following:

- 1. Obtains the name or IP address of the Veeam Backup for Office 365 host\endpoint responsible for storing mail data.
- 2. Starts Veeam Explorer for Microsoft Exchange.
- 3. On the **Home** tab, adds Veeam Backup for Microsoft Office 365 server to the scope, as described in this section. Remember that in the application launcher window the following connection settings should be specified:
  - o Veeam Backup for Microsoft Office 365 name or IP address, supplied by provider
  - o Organization Authentication method
  - Exchange organization credentials
- 4. After connecting to Veeam Backup for Office 365 server responsible for the backup of tenant's mailbox data, this data will become available in the Veeam Explorer console.

# Setting Up Backup Infrastructure

This section describes how to set up the key infrastructure components, including backup proxies and their associated repositories.

# Configuring Backup Proxies

Backup proxies are responsible for data transfer from Exchange mailboxes to the backup repository, taking the load off the Veeam Backup for Microsoft Office 365 server and optimizing the performance. The default proxy is installed during the setup on the local host (Veeam Backup for Microsoft Office 365 Server).

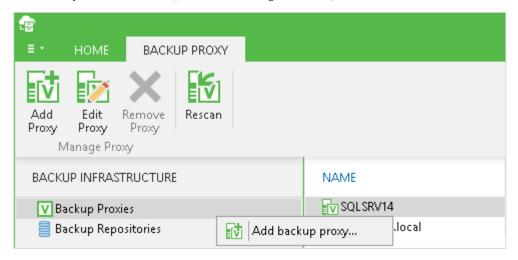
All backup proxies existing in the infrastructure are displayed in the **Backup Proxy** tab of the **Backup Infrastructure** view.

### Adding a Backup Proxy

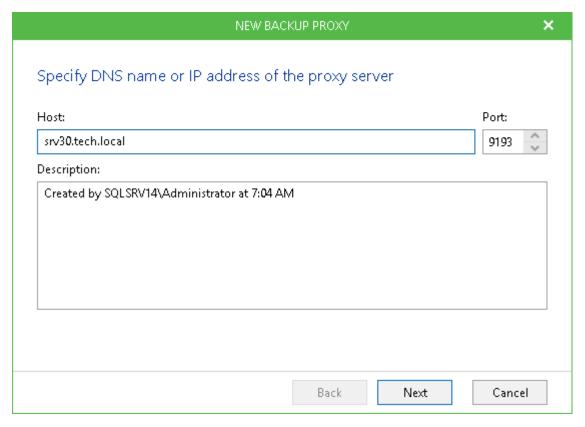
Before adding a backup proxy, check that:

- 1. The target machine meets system requirements.
- 2. The necessary ports are open.
- 3. The user accounts has sufficient rights (see below).

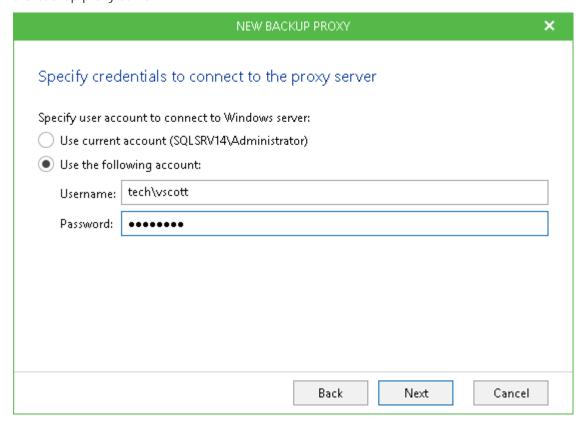
To add a new backup proxy, select the corresponding menu command on the toolbar, or use the shortcut menu for the **Backup Proxies** node (root of the navigation tree):



- 1. At the first step of the **New Backup Proxy** wizard, specify the following:
  - a) Proxy server DNS name or IP address
  - b) Port for connection (default is 9193)
  - c) Optional description



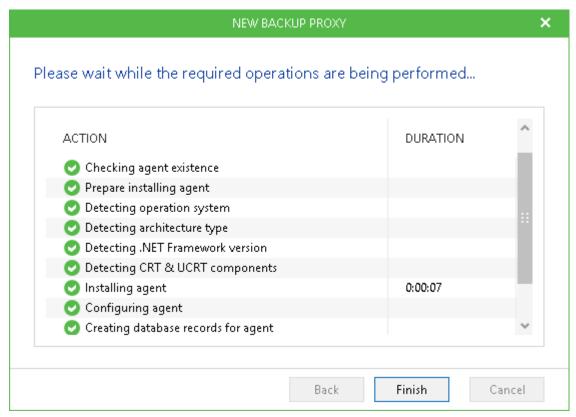
2. Next, specify user account that will be used to connect to the Windows server where the new backup proxy will be deployed. This can be the account currently logged in (default option), or another account specified using *DOMAIN\username* format. The account should have the **local Administrator** rights for the backup proxy server.



#### NOTE:

The proxy service will run under the *Local System* account on the specified server.

3. After you click **Next**, Veeam will verify connection account, connect to the specified server and perform the necessary operations, including check for prerequisites, installation and configuration. If any action takes more than 5 seconds, its duration will be displayed in the corresponding field. Wait for the actions to complete, then click **Finish**.



After that you will be prompted to create a repository that will be associated with this new proxy.

For more information, see the Configuring a Repository section later in this guide.

### **Editing and Deleting Backup Proxies**

### **Editing Proxies**

To edit a backup proxy:

- 1. Select it in the preview pane of the **Backup Infrastructure** view and use the **Edit Proxy** command from the ribbon menu, or the **Edit** command from the shortcut menu.
- 2. Follow the steps of the wizard to modify backup proxy name, connection port, or access credentials.

#### **Deleting Proxies**

When you delete a proxy, the following will take place:

Information about this proxy will be deleted from the Configuration Database.

- Information about associated repositories also will be deleted from the Configuration Database, so these repositories will be no longer displayed in the management console. However, repository folders and files will remain untouched in the target location.
- Backup jobs this proxy used to process will be displayed with empty properties in the preview pane. The
   *Repository* and *Proxy* fields for such jobs will contain <*Not Configured*> value. When trying to enable
   such jobs, you will need to make new proxy and repository assignment for them.

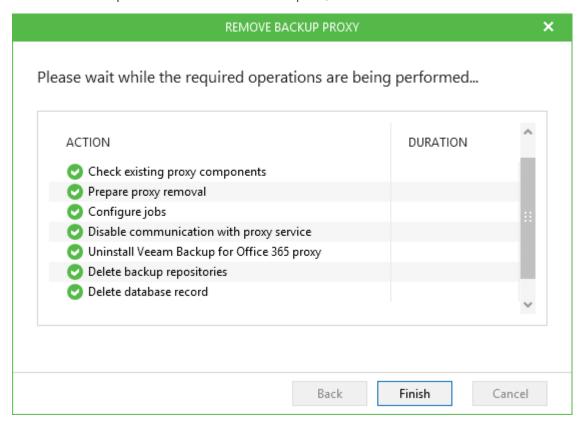
#### NOTE:

The default backup proxy that runs on the management server cannot be deleted.

If a proxy goes offline, then its jobs will be displayed with *Disconnected* status. You can manually rescan the proxy after it goes back online – to make it available for job processing again.

To delete a backup proxy:

- 1. Select the proxy in the preview pane.
- 2. Use the **Remove Proxy** command from the ribbon menu, or the **Remove** command from the shortcut menu.
- 3. Confirm the operation and wait for it to complete, then click Finish.



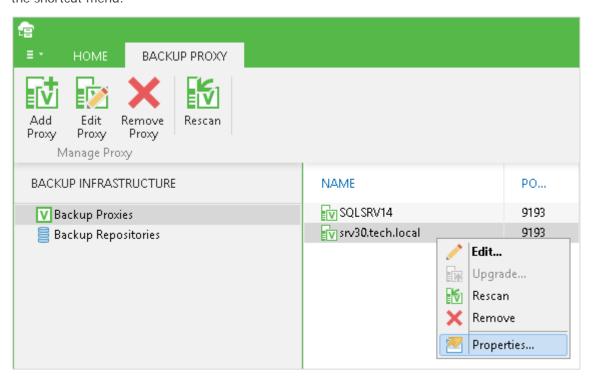
### Performance Settings for Backup Proxy

You can specify the number of threads and limit network bandwidth to be used by a proxy server. Consider, however, that running too many threads against Office 365 organization may reduce the backup performance.

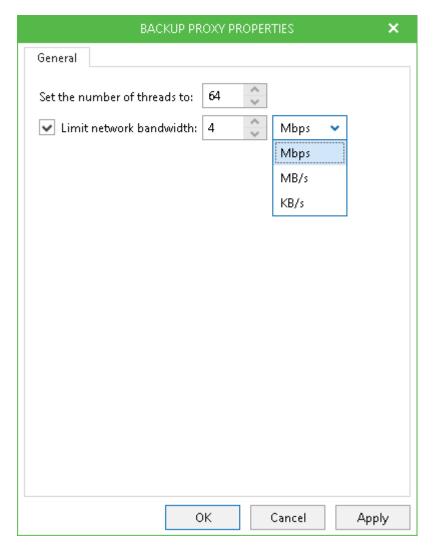
To configure the necessary values, do the following:

1. Select the backup proxy in the preview pane on the right, then right-click it and select **Properties** from

the shortcut menu:



2. Default number of threads to process by backup proxy is **64**. You can specify the value you need in the **Set the number of threads to** field of the **Properties** dialog.

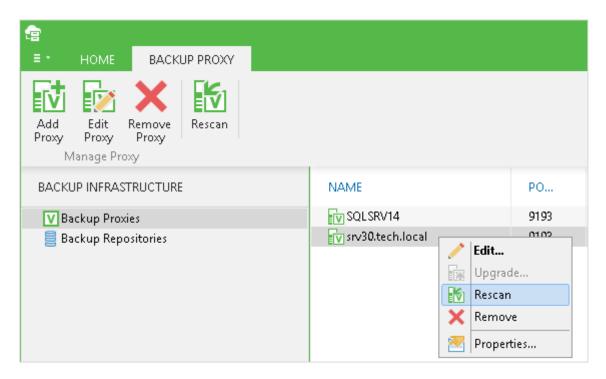


- 3. There is no network bandwidth limit by default. To set the required value, select the **Limit network** bandwidth check box, then use the list boxes next to it.
- 4. Click **Apply** to save the settings, then close the dialog.

### Rescanning Backup Proxies

If a backup proxy is offline for some time, you may need to perform proxy rescan. During this operation, Veeam Backup for Microsoft Office 365 will refresh proxy status and re-connect with the proxy if it is back online.

To rescan a proxy, select it in the preview pane of **Backup Infrastructure** view, and use the **Rescan** command from the ribbon or shortcut menu.



Automatic rescan is performed when you start Veeam Backup for Microsoft Office 365 management server, when you create a new proxy, repository, or backup job.

# Configuring Repositories

Veeam Backup for Office 365 supports the following repository types:

- Local (internal) folder of the backup server (default target).
- Direct Attached Storage (DAS), connected to the backup server, including external USB/eSATA drives and raw device mapping (RDM) volumes.
- Storage Area Network (SAN); backup server must be connected to the SAN fabric via hardware or virtual HBA, or software iSCSI initiator.
- SMB 3.0 share (experimental support); backup server's computer account must have write permissions on the network share.

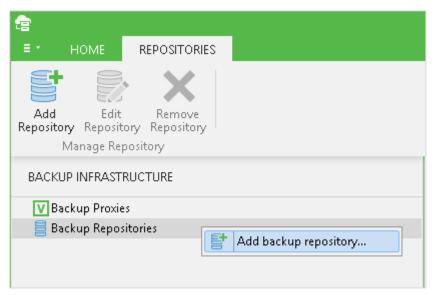
Default repository, associated with the proxy running on the local Veeam Backup for Office 365 server, is the C:\VeeamRepository local folder.

## Adding a Repository

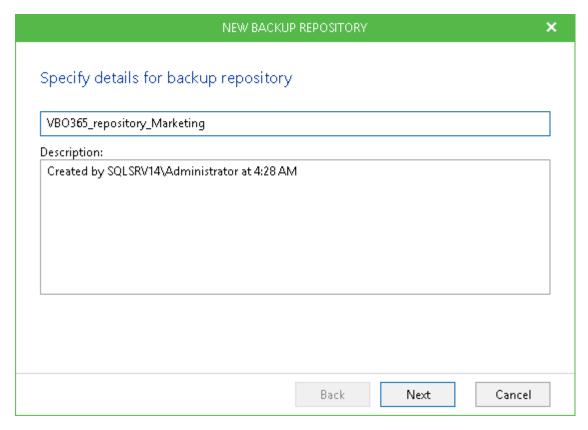
You can use the New Backup Repository wizard to create repositories associated with existing backup proxies. This wizard will be launched, for example, if you answer **Yes** when prompted to create a repository associated with the new backup proxy (that is, after finishing the New Backup Proxy wizard described above).

Also, to create a new repository, you can take the following steps:

- 1. In the **Backup Infrastructure** view, click the **Backup Repositories** node to display the **Repositories** tab.
- 2. Click Add Repository on the ribbon to start the New Backup Repository wizard.
- 3. Alternatively, select the **Backup Repositories** node in the navigation tree, right-click it and select **Add backup repository** from the shortcut menu.



4. At the first step of the wizard, specify repository name and optional description.



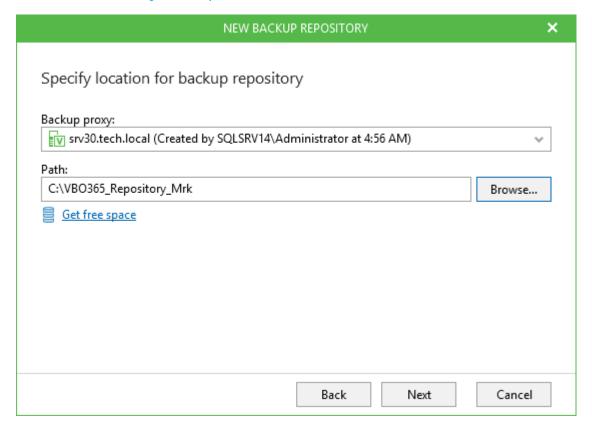
### 5. Next, specify:

- a) Backup proxy server that will work with the new repository.
- b) Repository location. Make sure the repository meets the requirements listed in the corresponding section of this guide. To discover repository capacity and free space, click **Get free space**.

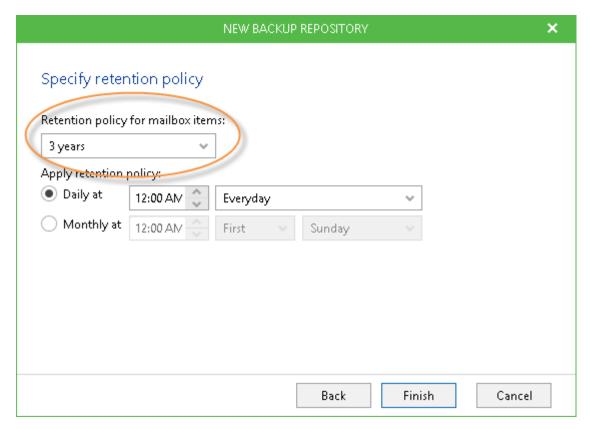
### NOTE:

If you have Veeam Backup & Replication deployed in your environment, consider that using its repository as a target for Veeam Backup for Microsoft Office 365 backups is not recommended due to the many differences in the backed up data structure and retention policies, as well as product operation.

Instead, it is recommended to plan for a dedicated storage of your mailbox data archived by Veeam Backup for Office 365. See also the System Requirements section above.

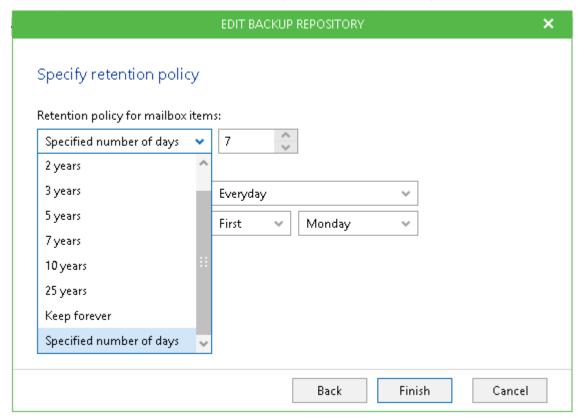


- 6. At the next step, configure retention for the backup data stored in the repository:
  - a) Retention policy for mailbox items use this drop-down list to specify the retention period for archived data. See this section for details on how retention works.
     Default retention period is 3 years.



You can select any value from the list, including Keep forever.

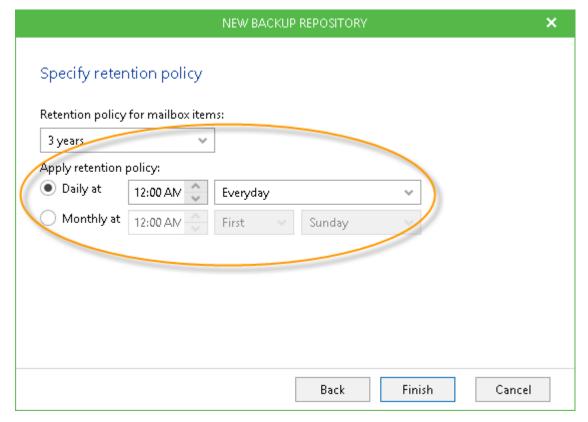
You can also select Specified number of days and specify the value you need:



Remember that mail items older than specified retention period will not be archived, and those stored in the repository will be deleted when the retention policy is applied, as described below.

b) Apply retention policy – use these options to specify how frequently retention settings

should be applied to data in the repository:



You can specify daily, weekly or monthly schedule. When applying retention, the retention period starting point is set to the current date. See this section for details.

### IMPORTANT!

Retention policy is applied to backup repository, not to backup job.

7. Click **Finish** to save the settings and close the wizard. The new repository configured for selected sever will be displayed in the list of repositories in the working area on the right.

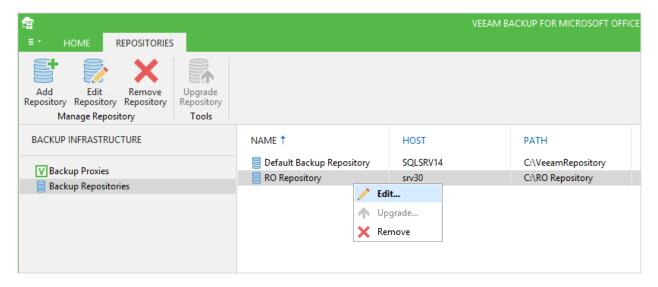
### Related Topic

How Retention Settings Are Applied

### **Editing Repository Settings**

To edit the repository settings, do the following:

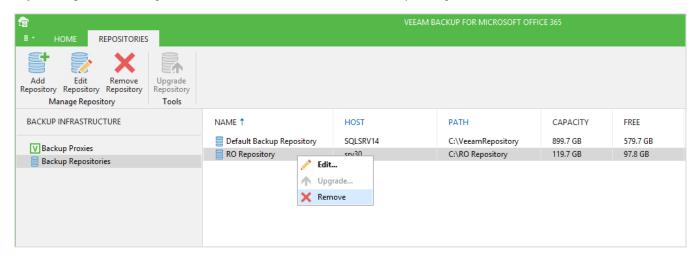
- 1. Open the **Backup Infrastructure** view and in the navigation tree select the proxy server that works with the required repository.
- 2. Select the required repository in the list and on the **Repositories** tab of the ribbon menu select **Edit repository**. Alternatively, use the **Edit** command from the repository shortcut menu.



3. Go through the steps of the wizard to modify repository settings. You can, in particular, modify repository name, description, and retention policy.

## Deleting a Repository

To delete a repository, select it from the list, and on the **Repositories** tab of the ribbon menu select **Remove repository**. Alternatively, use the **Remove** command from the repository shortcut menu.



After this operation, the repository will be deleted from configuration and no longer displayed in the **Backup Infrastructure** view in the UI. The corresponding restore points will become unavailable for browsing and restore.

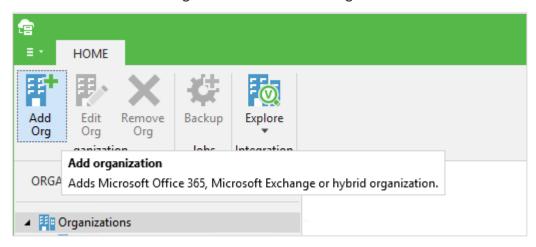
#### IMPORTANT!

If you want to delete the repository, it is recommended that before deletion you target the corresponding jobs at another repository.

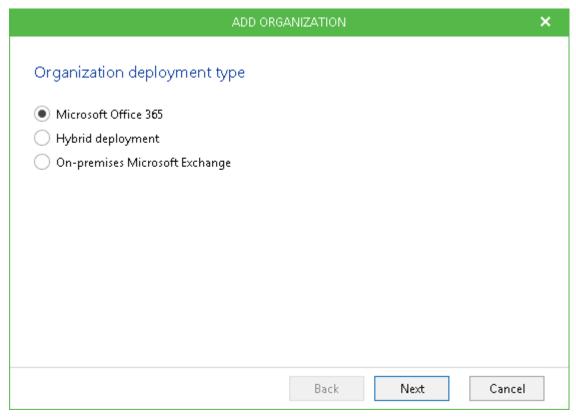
# Configuring Organizations

To configure backup jobs for your on-premises Exchange or Office 365 organization, you should add this organization to the program scope. For that, do the following:

- 1. Switch to the **Organizations** view and click the **Home** tab.
- 2. Click **Add Org** on the toolbar, or select the **Organizations** node in the navigation tree, and from its shortcut menu select **Add organization...**. The **Add Organization** wizard will be launched.



- 3. Select the type of organization you want to add. This can be one of the following:
  - o Microsoft Office 365
  - Hybrid deployment
  - o On-premises Microsoft Exchange



4. Click **Next** to follow the appropriate product configuration scenario, as described below.

- o Adding Office 365 Organization
- o Adding On-premises Exchange Organization
- o Adding Organizations of Both Types in Hybrid Deployment

After you finish the wizard, the organization will be added to the scope and displayed under the Organizations node in the navigation tree. Then you can start creating backup jobs for organization mailboxes.

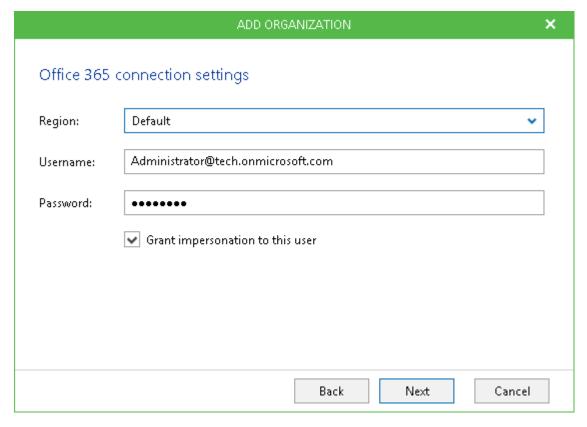
### Adding Office 365 Organizations

After you selected Microsoft Office 365, you will be taken to the Office 356 connection settings step of the wizard. Specify the following:

a) Region – select Microsoft Azure region the organization belongs to. Usually, this will be the Default region. However, you may need to choose Germany or China if your Office 365 belongs to the corresponding Microsoft Azure region. Such organizations will be displayed with an icon having the matching state flag next to it.

#### NOTE:

If necessary, contact the IT administrator in charge of your Office 365 deployment. To read more, refer to the Microsoft Azure site at https://azure.microsoft.com/en-us/overview/clouds/germany/#why-choose-azure-germany.

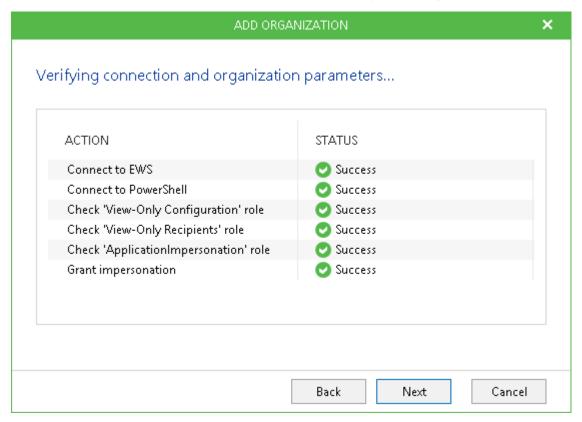


- b) **Username** and **Password** enter credentials for connection to the organization. Use any of the following formats: *user@domain.com* or *user@domain.onmicrosoft.com*.
- c) Make sure the **Grant impersonation to this user** option is selected. This will allow the service to archive mail from other users' mailboxes.

#### NOTE:

You may have impersonation granted manually, for example, via PowerShell (see Permissions section). However, if impersonation was not granted at all, Veeam Backup for Microsoft Office 365 will issue an error message when checking organization parameters, and mailbox processing will not be possible.

At the next step, Veeam will verify the connection settings you have provided, including connection to Exchange Web Services (EWS) and PowerShell, as well as the necessary roles assignment for the specified account.

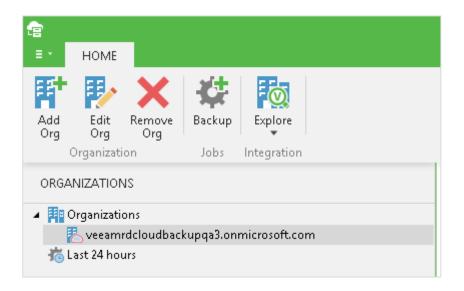


A warning can appear in case the specified user account was not assigned the **Application Impersonation** role in advance, prior to running the wizard, and then Veeam will try to perform this role assignment. If parameter check returns Success after re-run, you can proceed with finishing the wizard; if it returns Failure, you may need to exit the wizard and check the required permissions. Contact your Exchange Online administrator, if necessary.

### NOTE:

If impersonation was granted manually using PowerShell with some accounts filtered out ("partial impersonation"), then you will see a corresponding message. If then you decide to fully grant impersonation, you can re-run parameters check after granting.

Added Office 365 organization will be displayed under the **Organizations** node in the navigation pane of the **Organizations** view, its icon having a cloud in gray and red:



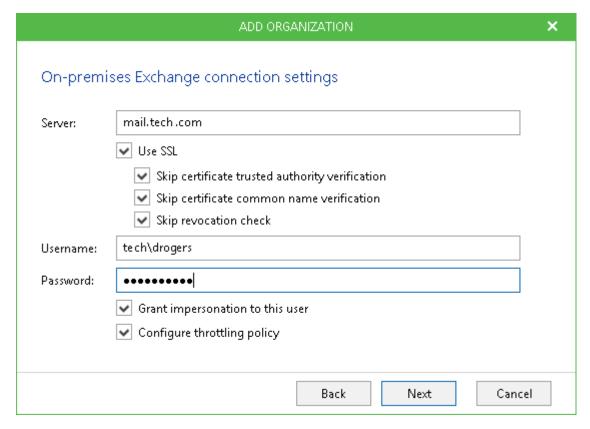
## Adding On-Premises Exchange Organizations

After you selected **On-premises Microsoft Exchange**, you will be taken to the **On-premises Exchange connection settings** step of the wizard. Specify the following connection parameters:

1. **Server** – Microsoft Exchange server EWS endpoint URL, for example, *e.mail.mycompany.com*. If necessary, contact your Exchange administrator for that URL.

If the server requires SSL connection, select **Use SSL**. After that you can select to skip one or several checks – for that, use the corresponding check boxes:

- Skip certificate trusted authority verification
- o Skip certificate common name verification
- Skip revocation check
- 2. **Username** and **Password** enter credentials for connection to the Exchange organization. User account should be entered in the *domain\user* format and have sufficient access rights.
- 3. **Grant impersonation to this user** use this option to grant impersonation automatically. (You might have it granted beforehand, as described in the section above if so, clear this check box.)
- 4. Configure throttling policy use this option to automatically configure a throttling policy for connection with this server. With this check box selected, Veeam will automatically create VeeamArchivingThrottlingPolicy for the specified Exchange server, which can be examined on that server using the administrative UI.

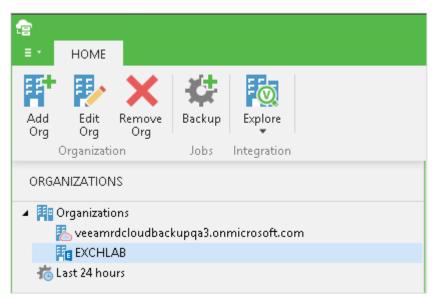


At the next step, Veeam will do the following:

- a) Verify the connection settings you have provided, including connection to Exchange Web Services (EWS).
- b) Run the appropriate checks (if not instructed to skip them).
- c) Perform the necessary roles assignment for the specified account.
- d) Configure throttling policy settings.

Wait for these operations to complete. If any of them does not complete successfully, you may need to exit the wizard and check the required settings, and then retry. Contact your Exchange administrator, if necessary.

Added on-premises Exchange organization will be displayed under the **Organizations** node in the navigation pane of the **Organizations** view, having a blue Exchange icon next to it:



### Adding Organizations of Both Types in Hybrid Deployment

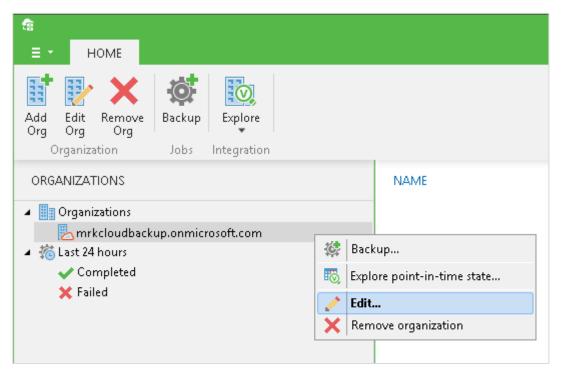
This case combines the two scenarios described in the above sections:

- 1. First, you specify connection settings for your Office 365 organization.
- 2. Next, specify settings for on-premises Exchange organization.

Make sure the relationships between these organizations are established properly. Veeam will check relationships between these organizations and issue an error message if no proper relationships are discovered.

## **Editing and Deleting Organizations**

To edit organization settings, select its node in the navigation pane and click **Edit Org** on the toolbar, or use the shortcut menu command. Then follow the steps of the wizard.



### NOTE:

Consider that you can change Office 365 organization type only to the Hybrid type but not to the On-premises type.

Similarly, you can change On-premises organization type to the Hybrid type, not to the Office 365 type.

To remove an organization from the scope, select it in the navigation pane and click **Remove Org** on the toolbar, or use the **Remove organization** command from the shortcut menu.

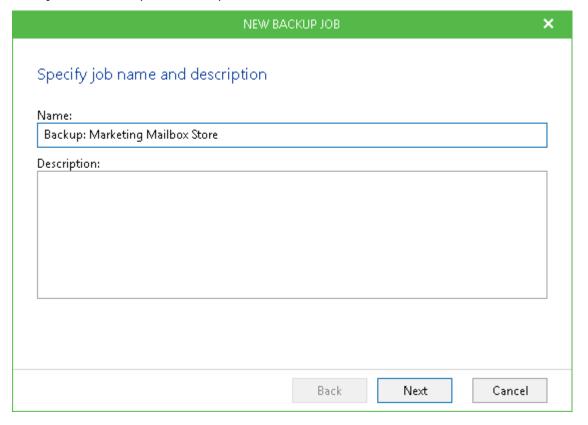
# Backup of Organization Mailboxes

This section describes how to backup mailboxes of the Office 365 organization using Veeam Backup for Microsoft Office 365.

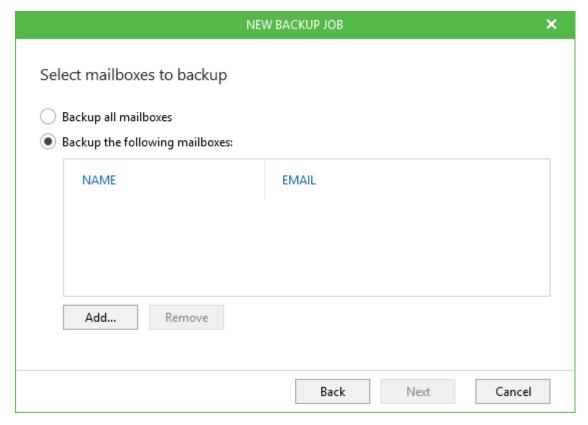
# Creating a Backup Job

To help you create a job that will backup organization mailboxes to the repository, Veeam offers a friendly wizard. To launch the wizard, select the organization whose mailbox database you want to backup, and click **Backup** from the ribbon menu, or from the organization's node shortcut menu.

1. Enter job name and optional description.

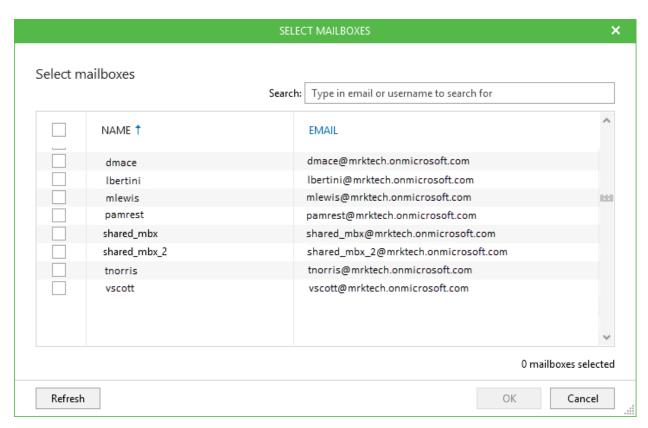


- 2. Next, specify what mailboxes should be backed up. The following options are available:
  - Backup all mailboxes with this option selected, all mailboxes in the organization will be backed up.
  - Backup the following mailboxes with this option selected, you can select what mailboxes will be archived. This is the default setting.
- 3. If you proceed with the second option, then you can populate the list with mailboxes of your choice. For that, click **Add**.

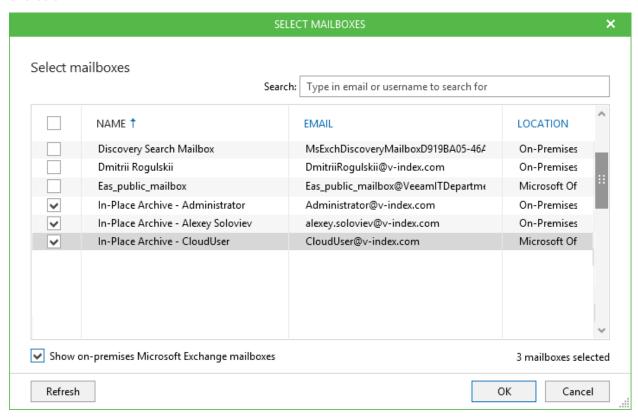


The list of existing mailboxes will be displayed, showing mailboxes with their mail address and user (owner) name. Select the check box next to the mailbox to be processed; to exclude mailbox from processing, clear the check box.

- To speed up selection, use the **Search** field. Here you can enter the user name or email address to search for.
- To synchronize information about existing mailboxes with Exchange server, use the Refresh button.



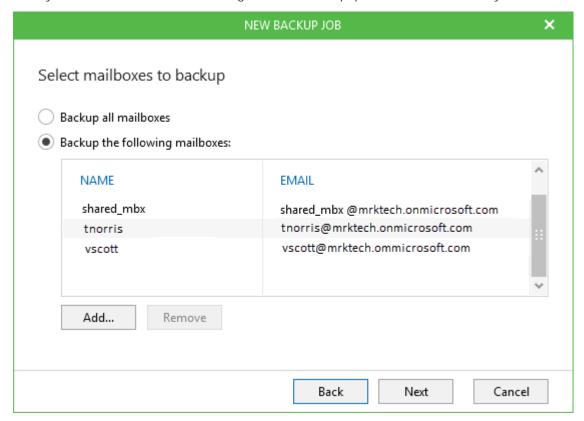
If you are creating a backup job for a hybrid organization, the **Select Mailboxes** dialog will look like the one below:



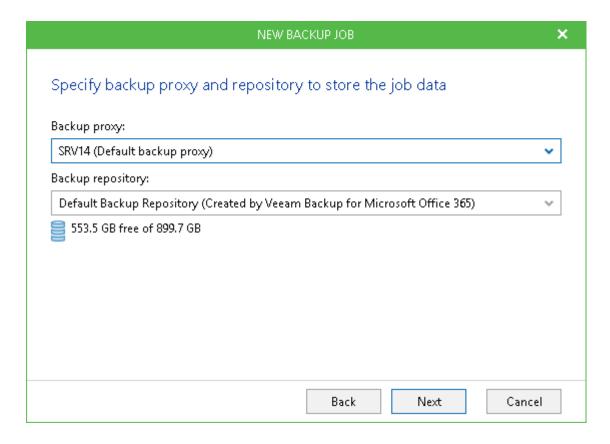
Initially, it displays Exchange Online mailboxes. You can select the **Show on-premises Microsoft Exchange mailboxes** check box to display the corresponding mailboxes. Mailbox location (**On-Premises** or **Microsoft Office 365**) will be displayed in the **Location** column.

#### NOTE:

- When configuring mailboxes to include in the backup job, remember that several jobs cannot be targeted on the same mailbox.
- If you have configured a job for the organization and included all mailboxes in it, and then you create another job to process one or several selected mailboxes in that organization, these selected mailboxes will be excluded from the first job (targeted at all mailboxes). Thus, if you disable such job(s), the corresponding mailbox data will not be collected by the 'all mailboxes' job, either.
- 4. After you click **OK**, the list in the dialog window will be populated with mailboxes you selected.



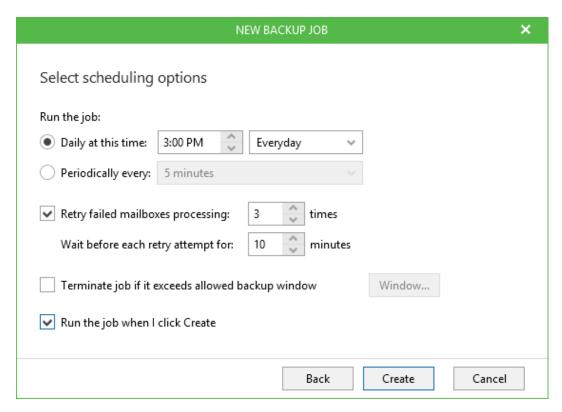
5. Then you should select the backup proxy that will transfer the backed up data, and its associated repository where this data will be stored. By default, data will be processed by the Default Backup Proxy (running on the Veeam Backup for Microsoft Office 365 server) and will be kept in the Default Backup Repository (see the sections above for details).



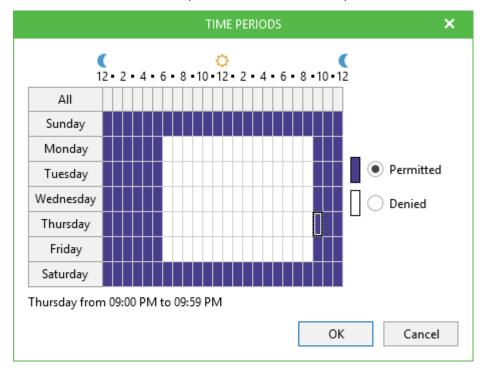
### NOTE:

If any of your proxies does not appear in the list, it may be disconnected from the management server. You can check proxy status, then perform proxy rescan.

- 6. Next, specify scheduling options for the backup job:
  - o Daily at this time <time> <frequency> default is 1:00 AM every day
  - o **Periodically every** <frequency> default is 5 minutes.
  - o Retry failed mailboxes processing: <N> times default is 3
  - o Wait before each retry attempt for <N> minutes default is 10 minutes



7. You can also instruct the program to **Terminate job if it exceeds allowed backup window**. For that, select the corresponding check box and click the **Window** button. In the **Time Periods** dialog, define the allowed hours and prohibited hours for backup.



Thus, each job is created with assigned schedule.

- 8. Finalize job configuration:
  - If you want to force the job launch (despite the schedule), make sure the Run the job when
     I click Create option is selected. The job will be started and displayed as Running.
  - If you do not want to run the job after clicking the **Create** button, clear the corresponding check box. The job will appear in the UI as *Stopped*.

# Managing Jobs

To manage the jobs configured for all organizations added to the scope, switch to the **Organizations** view, click the **Jobs** tab and select the **Organizations** node (root) of the navigation tree.

To manage the jobs configured for a single organization, select the organization node in the navigation tree.

Available jobs will be displayed in the preview pane on the right. Here you can see each job name, status, statistical details, last backup date and time and new restore point that were created.

The following commands can be used for the backup jobs:



- Start or Stop selected job.
- Enable or Disable selected job.
- **Edit** job settings. Use the ribbon menu command or job's shortcut menu command to launch the job wizard and follow its steps.

### NOTE:

New settings will be applied during the next job run.

- Delete the job.
- **Explore** run Veeam Explorer for Microsoft Exchange to explore the content of restore point created by the job. Here you can select any of the following:
  - o **Explore latest** use this command to launch Veeam Explorer for the latest restore point
  - Explore point in time use this command to launch Veeam Explorer for the point in time of your choice. Use the calendar control to select from the successfully created restore point (they will be highlighted).

For more information on **Explore** command, see the next section.

You can also select the necessary job and use its shortcut menu commands.

To view detailed job statistics, select the job you need and examine the information in the lower pane on the right. You can use the Organization or History view.

# Viewing Job Statistics

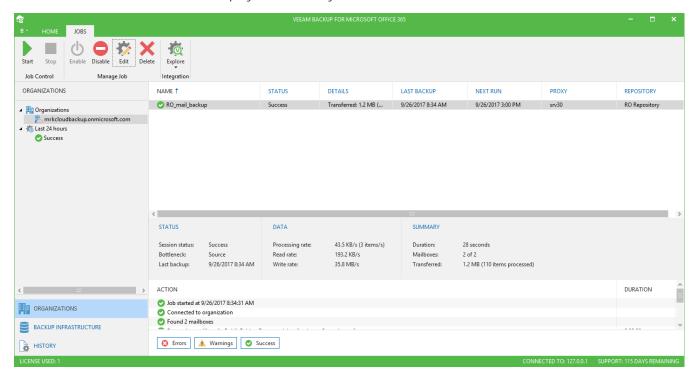
You can view detailed information on the backup job runs, using any of the following views in the main window:

- Organizations View
- History View

### Organizations View

When you open the Organizations view, the following statistical information will be displayed:

- For the selected organization node on the left, you can view the list of its backup jobs in the preview pain on the right, including job name, status, details of the latest run, and date and time of the last backup it created, time of the next run, and backup repository used to store data.
- For the selected job, the pane below the job list shows the last session results, including session status (success or failure), bottleneck (if any), last backup date and time, data processing rate (read and write), session duration, the number of processed mailboxes, and the amount of transferred data.
- In the bottom of the main window, you can examine job session log records. Use the Success, Warnings, or Errors filter buttons to display the records you need.



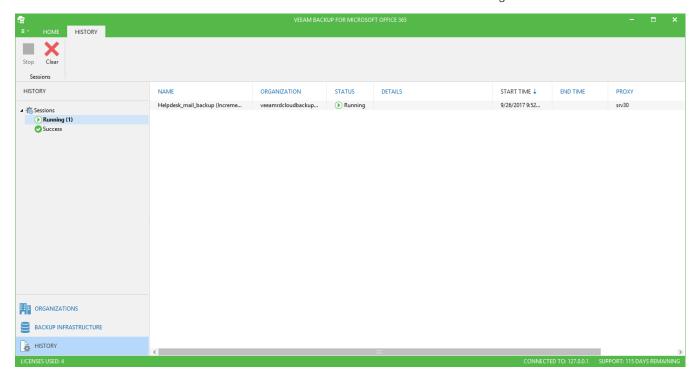
If you want to view sessions for the jobs that ran in the **Last 24 hours**, select the corresponding node in the navigation tree.

### History View

When you open the **History** view, you can explore the list of all sessions for all jobs configured for all organizations added to the scope of Veeam Backup for Microsoft Office 365.

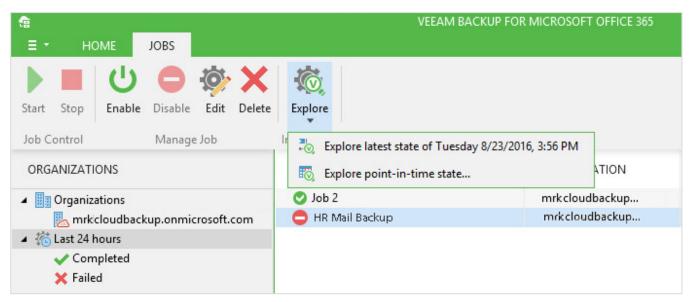
Use the nodes of the navigation tree to examine sessions with the corresponding status.

- Use the Stop button on the toolbar to stop the running session.
- Use the Clear button on the toolbar to delete all sessions data from Configuration Database.



# **Exploring Backups**

Each backup job that ran successfully creates a restore point with the state of the mailbox database as per job configuration. To explore the content of the backup(s) created and stored in the repository by successful runs of the backup jobs, use the **Explore** command from the ribbon menu.

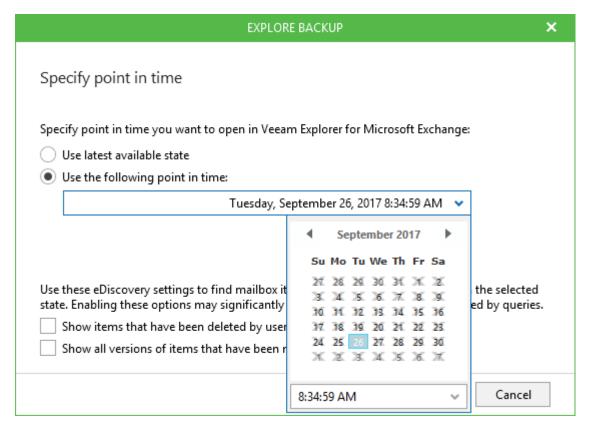


Depending on what entity you select, this command will automatically launch Veeam Explorer for Microsoft Exchange and add the corresponding database(s) to its scope:

- Backup job Veeam Explorer will add to its scope only the backup of mailbox database created by this job.
- Organization Veeam Explorer will add to its scope the backups of mailbox database created by all job configured for this organization.
- All organizations in the scope (if you select the root node in the navigation tree) Veeam Explorer will
  add to its scope the backups of mailbox databases created by all jobs in all organizations.

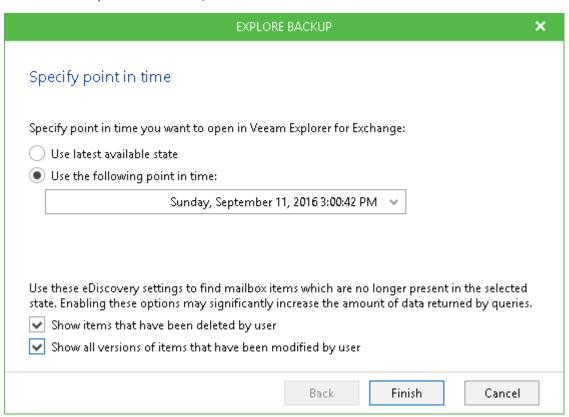
Be sure to select the necessary restore point - you will then be able to explore and restore the mailbox items to the state as of that moment. For that, use appropriate command option: **Explore latest state of** <date\_time> or **Explore point-in-time state**.

- Explore latest state use this command to launch Veeam Explorer for the latest restore point.
- Explore point in time use this command to launch Veeam Explorer for the point in time of your choice. Use the calendar control to select from the successfully created restore point (these dates will be highlighted). If multiple restore points were created on an individual day, use the drop-down list to pick the time you need.



You can also select the following options to be used when opening the database in Veeam Explorer:

- Show items that have been deleted by user (by the moment when selected restore point was created).
- Show all versions of items that have been modified by user (by the moment when selected restore point was created).



To display that historic data, Veeam will use other restore points from the repository. Note that if items had been deleted (or modified) prior to the initial backup job run, no historic data will be available.

Consider that enabling these options may significantly increase the amount of data returned by queries.

#### IMPORTANT!

If Veeam Backup for Microsoft Office 365 and Veeam Explorer for Microsoft Exchange are deployed on different machines, then to open a database (.ADB file) from the repository, you should first launch Veeam Explorer for Exchange and then connect to Veeam Backup for Microsoft Office 365 server. The database will be automatically added to the product scope. See the Adding Databases to Scope Manually section for details.

Automatic addition of an .ADB database to Veeam Explorer scope, initiated from Veeam Backup for Office 365 will work only if you have both components deployed on the same machine. Otherwise, you will receive an error message.

# Restoring Organization Mailbox Data

This section describes how to use Veeam Explorer for Microsoft Exchange to restore mailbox items for onpremises or Exchange Online organization.

# Adding Databases to the Scope Manually

In some cases, you may need to add a mailbox database to the Veeam Explorer manually. For example, this method can be used if you perform the file-level restore of your Veeam Backup for Office 365 server and then use Veeam Backup Browser to obtain database files, if you have a Veeam ZIP file, or if your mail data is backed up by Veeam Backup for Office 365 on the service provider side, or in other cases.

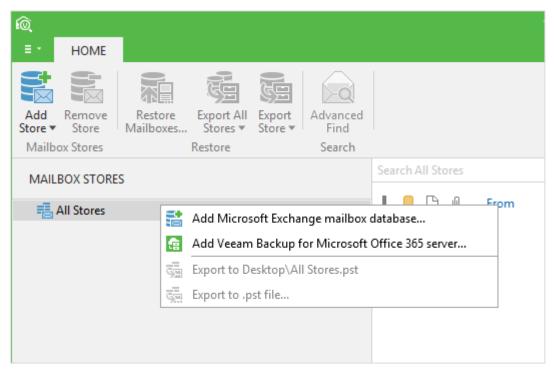
### NOTE:

Note that Veeam Explorer for Microsoft Exchange supports only database files from Microsoft Exchange Online, Microsoft Exchange Server 2010 SP1, SP2 or SP3, Microsoft Exchange Server 2013 or Microsoft Exchange Server 2016.

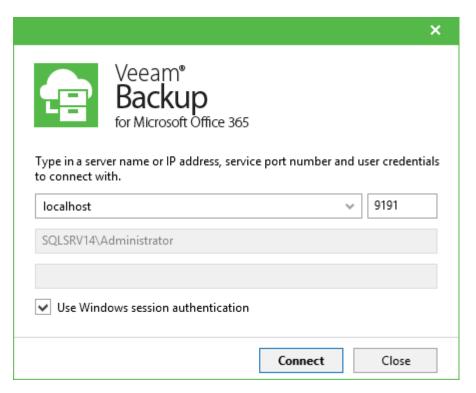
## Adding an ADB Mailbox Store

You can connect to Veeam Backup for Microsoft Office 365 server, and all databases from the repository that stores Microsoft Office 365 Organization mail data backup will be added to Veeam Explorer scope. For that, do the following:

 In Veeam Explorer, click Add Store > Veeam Backup for Office 365 server on the Home tab, or right-click All Stores in the navigation pane and select the corresponding shortcut menu command:



2. In the application launcher, specify connection settings for the machine where Veeam Backup for Microsoft Office 365 works: provide server name or IP address, service port number (default is 9191) and the user account that be used to access that server. You can select to **Use Windows credentials** if current account has sufficient permissions, that is, local administrative rights on the target machine.



3. After you click **Connect**, Veeam Explorer will connect to the specified server, and Veeam Backup for Microsoft Office 365 will provide the latest state of backed up databases. Their content will be displayed in Veeam Explorer under the node with the corresponding organization name.

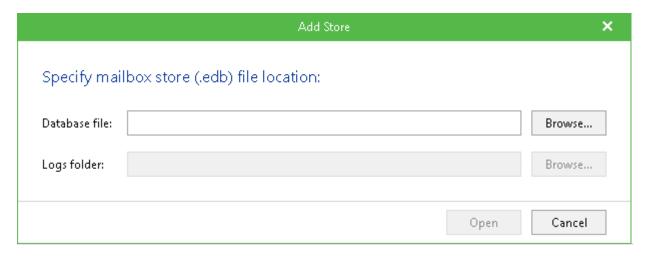
#### IMPORTANT!

If you have Veeam Backup for Microsoft Office 365 and Veeam Explorer for Microsoft Exchange deployed on different machines, then you can explore backed up Exchange Online databases only if you add them to scope, opening Veeam Explorer first and then connecting to Veeam Backup for Microsoft Office 365 server.

## Adding an EDB Mailbox Store

You can also manually add a Microsoft Exchange database file (.EDB) to the Veeam Explorer, for example, if you have an on-premises or hybrid Exchange deployment. For that, do the following:

- Click Add Store > Microsoft Exchange mailbox database on the Home tab, or right-click All Stores in the navigation pane and select the corresponding shortcut menu command.
- 2. Specify a path to the .EDB file and a path to Exchange logs folder, or click **Browse** to navigate to the files.
- 3. Click the **Open** button.



If the database is in "dirty state", Veeam Explorer for Microsoft Exchange will display a warning. In this case, you will have to recover the database before adding it. To recover the damaged database, transaction logs will be required - log replay will bring the database to the clear state. For that:

- 1. Check the **Logs folder** field and make sure you have specified the correct folder storing the logs.
- 2. Click Recover.

### **IMPORTANT!**

To be able to apply transaction logs to the database for recovery purpose, the current account will need **Write** permissions for the database file.

### Removing a Database

To remove a database from the Veeam Explorer scope, select the database in the navigation pane and click **Remove Store** on the toolbar, or right-click the database name and select **Remove Store**.

# Searching and Viewing Mailbox Items

With one or several mailbox stores added to the Veeam Explorer scope, you can browse and search through their content to find necessary items in the Veeam Explorer window.

### **Browsing**

In the navigation pane, you can see all the containers - mailbox stores with mailboxes and folders. When you select a folder in the navigation tree, you can browse its contents in the preview pane on the right. The number of items and estimated total size (as if it were to be exported) will be displayed in the status bar in the bottom of the window if you have selected the corresponding Veeam Explorer option.

## Searching

At the top of the right pane, there is a search field that allows you to search the selected container for items that match a specified search keyword. For example, you can select a user's mailbox and search for *veeam software* to find all the items that contain the words starting with "veeam" and "software" in the body text, address field, subject field or name of attachments. Search results for databases and mailboxes will include all items (that is, email messages, tasks, contacts and other items).

#### NOTE:

When you search for a phrase, the search algorithm will by default look for the items containing words in the phrase, not the phrase itself. To find the exact phrase, use quotes (for example, "veeam software").

Also, to narrow your search results, you can specify various search criteria inside the entry field, using the following format:

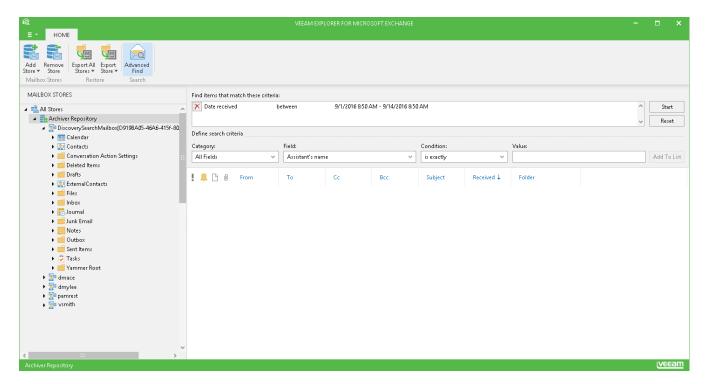
"criteria:value" (for example, from:John, hasattachments:yes, messagesize:<10 KB, received:yesterday and so on).

You can use logical operators such as *AND*, *OR* and *NOT* (must be typed in uppercase letters). These search criteria are similar to those used in Microsoft Outlook. For more information, see, for example, this Outlook help topic.

Search results will be displayed in the main pane; estimated total size of the items found will be displayed in the status bar in the bottom of the window (if you have enabled the corresponding option). This capability allows you to predict the size of a search query result if it were to be exported and refine search criteria (or search scope).

## Using Advanced Find Capabilities

Click **Advanced Find** on the toolbar to make up a list of necessary search criteria using predefined drop-down menus.



When configuring search filters, consider that logical operators (AND, OR) will be applied to multiple criteria as described below.

- If you specify <u>alike</u> fields as the search criteria (that is, you want to search through **Bcc** addresses only, or through **Subject** fields in all mail items, and so on), resulting search query will be built using OR operator, that is, this filter will search for any of the specified values. For example, to search for either *user1* OR *user2* as a sender, you should build a filter like this:
  - a) From the **Category** list, select *Address fields*.
  - b) From the **Field** list, select *From*.
  - c) From the **Condition** list, select *is exactly*.
  - d) In the **Value** field, enter the user name you want to look for (*user1*) and click **Add to List** button.
  - e) Repeat these steps for *user2*.

Resulting query will search for *user1* OR *user2* as the email sender. Click **Start** and wait for the query results to be displayed.

- If you specify <u>different</u> fields as the search criteria (for example, you want to search both through subject and date received), resulting search query will be built using AND operator. For example, to search for *user1* as a recipient AND for *email\_subject* as a part of email subject line, you should build a filter like this:
  - a) From the **Category** list, select *Address fields*.
  - b) From the **Field** list, select *To*.
  - c) From the Condition list, select is exactly.
  - d) In the **Value** field, enter the user name you want to look for (*user1*) and click **Add to List** button.
  - e) From the Category list, select Frequently-used fields.
  - f) From the Field list, select Subject.

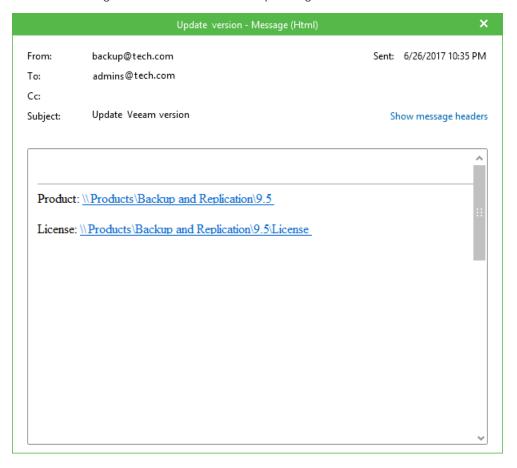
- g) From the Condition list, select contains.
- h) In the Value field, enter email\_subject and click Add to List.

Resulting query will search for *user1* as email recipient AND for *email\_subject* contained in the subject line. Click **Start** and wait for the query results to be displayed.

Therefore, if you try to search for several fields from the same category (both *user1*, *user2* as **From** address) AND one or several fields from another category (*email\_subject1*, *email\_subject2* as **Subject**), then resulting query will search for (*user1* OR *user2* as a sender) AND (*email\_subject1* OR *email\_subject2* as a subject line).

### Viewing Items

Veeam Explorer allows you to quickly view any item by double-clicking it. The item will be open in a separate window, showing all the necessary details (the **From** and **To** fields, the **Subject** field, the body text and so on). To show message headers, click the corresponding link.



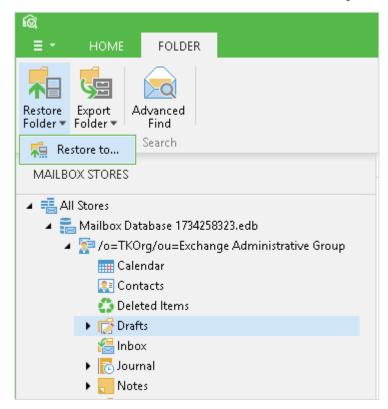
# Restoring to Exchange

Veeam Explorer for Microsoft Exchange allows you to restore mailboxes, folders and items into their original location or to another location, which can be Exchange Online or on-premises Exchange server.

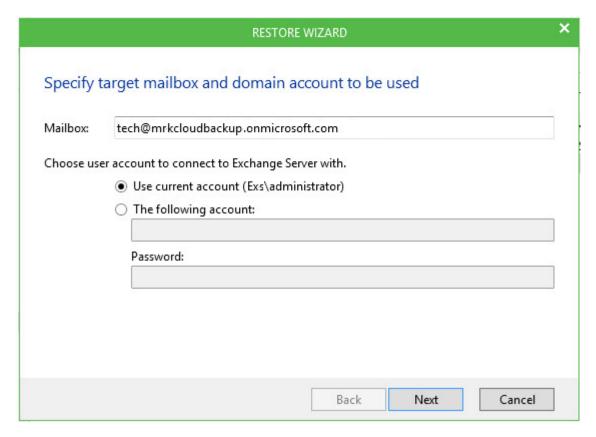
## Restoring Folders and Items

To restore a folder or a mailbox item, do the following:

- 1. Select the necessary folder or mailbox item.
- 2. On the corresponding tab click, respectively, **Restore Folder** or **Restore Items** and select **Restore to**. You can also use the shortcut menu of the selected entity.



3. Specify the target mailbox and domain account to be used. You can either use the current account or specify a different one. Make sure the account has sufficient access rights.

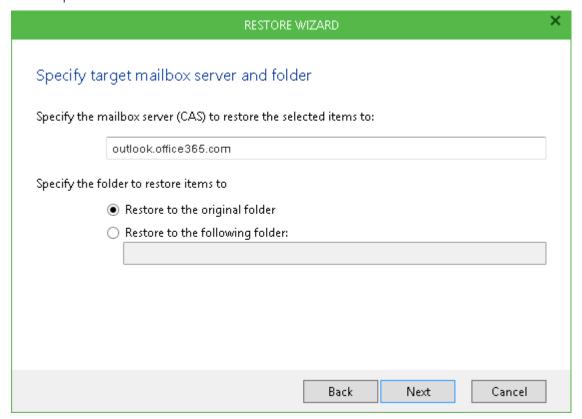


4. Specify the target mailbox server and folder. You can restore to original folder or specify a different one. If the specified folder does not exist on the target server, it will be created.

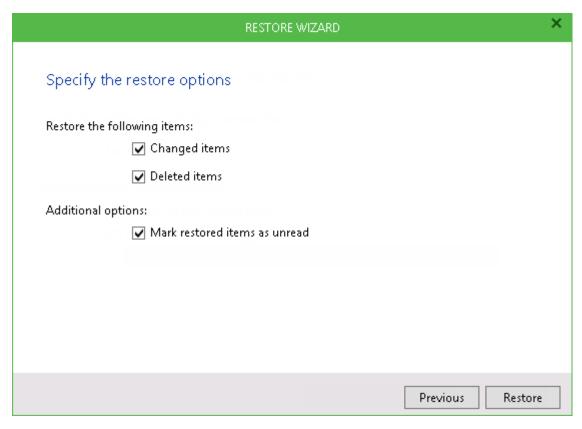
### NOTE:

If you want to restore *In-Place Hold Items* and *Litigation Hold Items* to the original location (that is, original mailbox system folders), consider the limitations that exist for this kind of restore:

- Restore of *In-Place Hold Items* is not supported for Exchange Server 2013 due to Exchange limitations.
- To restore *In-Place Hold Items* of Exchange 2016 mailboxes, these mailboxes must have *In-Place Hold* enabled and applied at least once, with *DiscoveryHolds* system folder creation. Otherwise, restore of *In-Place Hold Items* will fail with an error. For information on enabling *In-Place Hold* and *Litigation Hold*, see this Microsoft TechNet article: https://technet.microsoft.com/en-us/library/ff637980(v=exchg.160).aspx
- Currently, Veeam Explorer for Microsoft Exchange does not support browsing and restoring items from the *Versions* subfolder of the *Recoverable Items* folder used by *In-Place Hold* and *Litigation Hold* to preserve items.



5. Specify additional restore options:



6. Click **Restore** to begin the restore process.

## Restoring Mailboxes

Veeam Explorer for Microsoft Exchange 9.6 and later allows you to restore mailboxes to the original or different location on Exchange Online or on-premises Exchange. You can restore personal mailboxes (including Online Archives), public mailboxes and resource mailboxes.

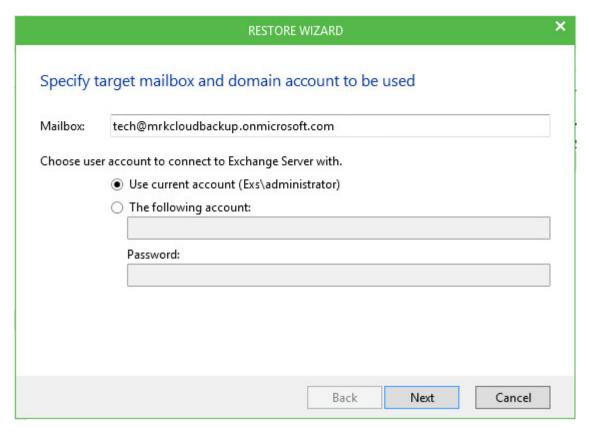
Veeam Explorer supports restore of individual mailboxes and "bulk restore" of multiple mailboxes, as well as 1-Click restore (with default settings to the original location).

In addition, you can use flexible restore options: specify folders to exclude from restore process, select whether to restore missing and/or changed items, and so on.

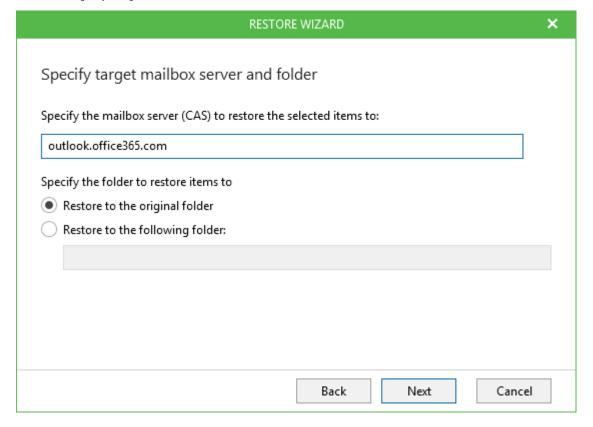
### Restore of Single Mailbox

To restore a mailbox to the Exchange server:

- 1. In the navigation tree, select the mailbox you want to restore.
- 2. Select the **Restore Mailbox** command from the toolbar or from the shortcut menu. The Restore wizard will be launched.
- 3. At the first step of **Restore** wizard, specify the account for connection with target Exchange. You can use the account currently logged on, or specific account in the corresponding format, depending on the target Exchange type:
  - o If restoring to on-premises Exchange, then enter credentials for accessing Exchange endpoint in the *domain\username* format
  - o If restoring to Exchange Online, then enter <username>@<organization>.onmicrosoft.com

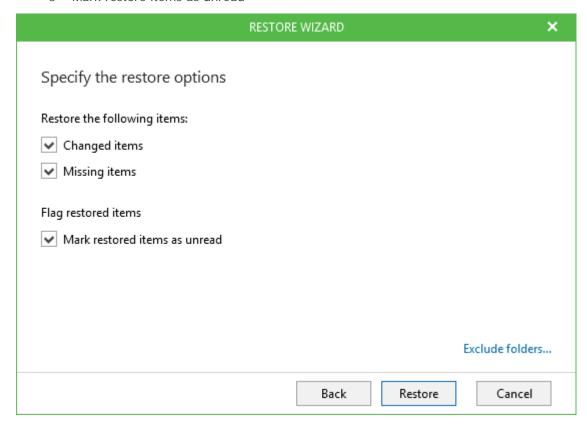


4. Next, specify target mailbox server and folder. Default CAS server will be selected automatically. For example, for Office 365 the default CAS is *outlook.office365.com*. If necessary, specify another CAS server.

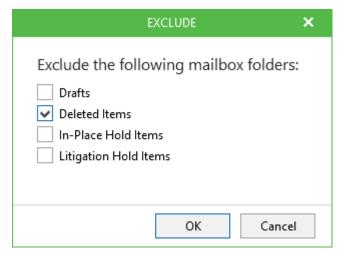


- 5. Next, select the restore options you need. You can select to:
  - Restore changed items

- Restore missing items
- Mark restore items as unread



6. If you want some folders from the backup to be excluded from the recovery process, click the **Exclude folders** link. In the dialog displayed, select what you plan to exclude. These can be the following folders: **Drafts**, **Deleted Items**, **In-Place Hold Items**, **Litigation Hold Items**.



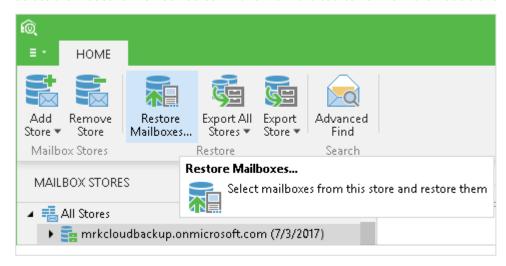
Click **OK** to save the settings and return to the wizard.

7. Finally, click **Restore** and wait for the operation to complete.

#### Restore of Multiple Mailboxes

Starting with version 9.6, Veeam Explorer allows you to restore one or several mailboxes of your choice from the selected store to the Exchange server you need ("bulk restore"). For that, do the following:

- 1. In the navigation tree, select the mailbox store that contains the required mailboxes.
- 2. Select the **Restore Mailboxes** command from the toolbar or from the node's shortcut menu.

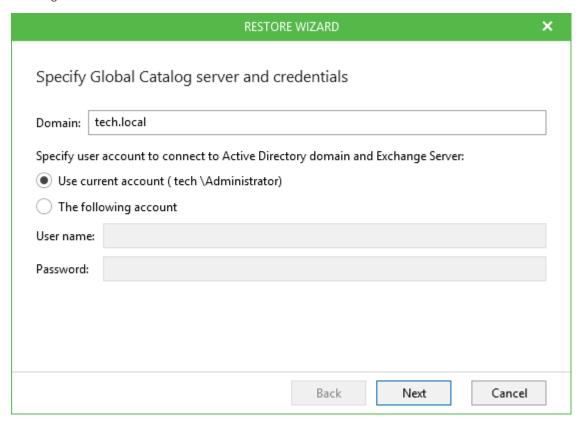


3. Then follow the steps of Restore wizard.

Step 1. Specify Connection Settings for the Target

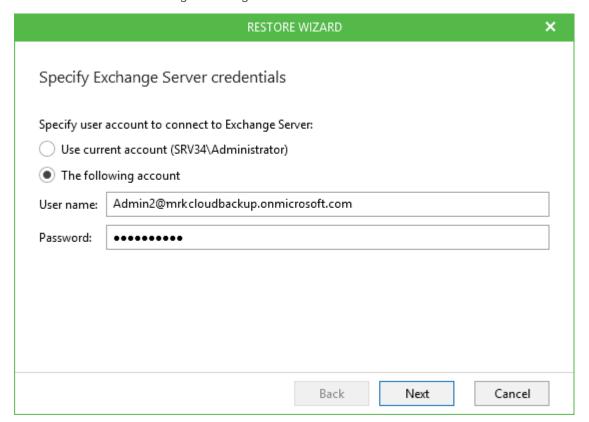
### For On-Premises Exchange

If you are restoring to on-premises Exchange server, specify Global Catalog access credentials. Enter corresponding domain name and specify user account with sufficient rights to connect to Active Directory and target Exchange Server. You can use the account currently logged on, or specify another account in the *domain/username* format. Make sure the account you select at this step has sufficient rights to restore objects in the target domain.



# For Exchange Online

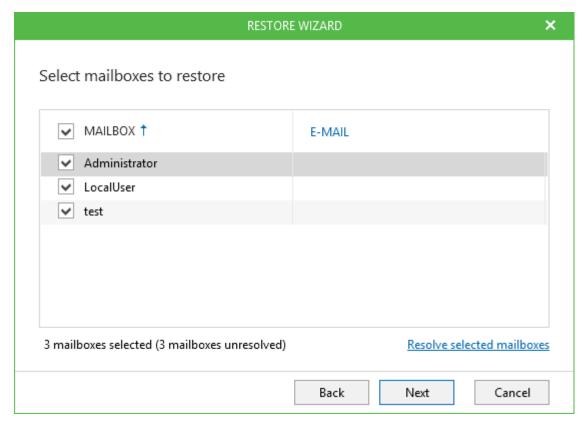
If you are restoring to Exchange Online, specify account for connection with target Exchange. You can use the account currently logged on, or specific account in the *username>@<organization>.onmicrosoft.com* format. Make sure it has sufficient rights to target.



Step 2. Select Mailboxes to Restore

Next, select the names of mailbox users whose mailboxes you want to restore.

To **Resolve selected mailboxes**, click the corresponding link.



Veeam Explorer for Microsoft Exchange will detect the e-mail addresses for your selection and display them next to the corresponding mailbox names.

Consider that Veeam Explorer for Microsoft Exchange can automatically filter out Exchange System Mailboxes when selecting mailboxes to restore. Therefore, the account under which Veeam Explorer runs should have sufficient rights for Active Directory access:

- This account can be included in the domain Administrators or Organization Management group.
- Alternatively, this account can be granted Read permission for the objectClass attribute of the Microsoft Exchange System Object container. Make sure to select the Apply these permissions to objects and/or containers within this container only option.

#### NOTE:

If Veeam Explorer account is included in the **Authenticated Users** group but is not granted this permission, it will not be able to properly handle Exchange system mailboxes objects restore. To prevent these issues, it is recommended to clear selection for such mailbox displayed in the list. This will exclude system mailboxes from processing.

See also the "Permissions" section of this guide.

#### Step 3. Select Restore Options

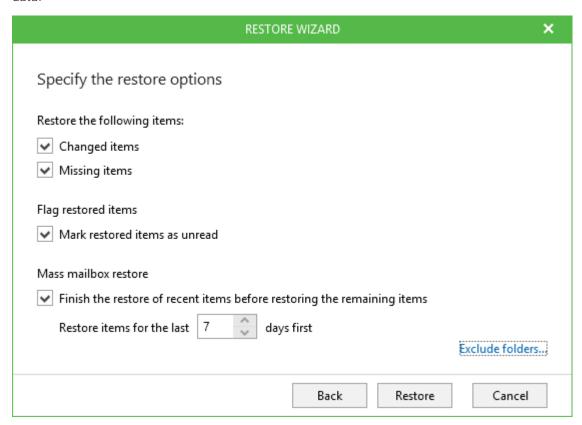
Next, specify the restore options to be applied. Most of them are the same as for folders and items – you can select to restore **Changed items**, **Missing items**, and to **Mark restored items as unread**.

Additionally, when restoring multiple mailboxes, you can select the **Finish the restore of recent items before restoring the remaining items** and set the program to **Restore items for the last <N> days first**.

This will instruct Veeam Explorer to restore multiple mailboxes in "chunks" – the most recent items in the backup (from the latest N-days interval) will be processed first (that is, pre-restored) and become available to user while

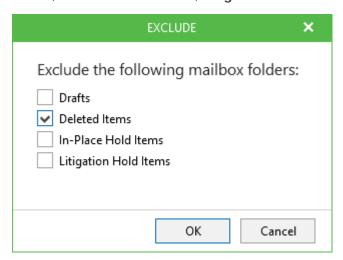
processing of the rest of mailboxes goes on in the background.

This approach makes restore process more user-friendly, as users typically want to work with the most recent data.



If you want some folders from the backup to be excluded from the recovery process, click the **Exclude folders** link.

In the dialog displayed, select what you plan to exclude. These can be the following folders: **Drafts**, **Deleted Items**, **In-Place Hold Items**, **Litigation Hold Items**.

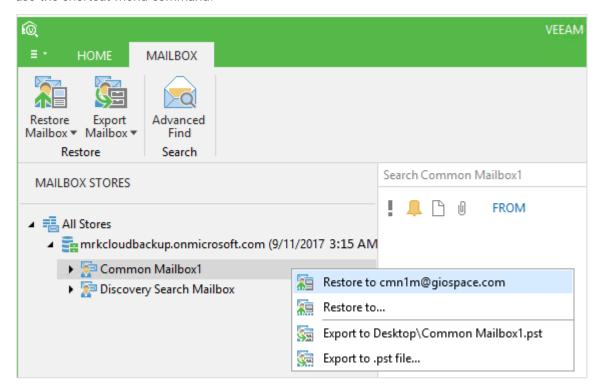


Click **OK** to save the settings and return to the wizard. Click **Restore** and wait for restore operation to complete.

#### 1-Click Restore

You can also use 1-Click restore feature to quickly recover a mailbox to its original location:

- 1. In the navigation tree, select the mailbox you want to restore.
- 2. On the **Mailbox** tab of the ribbon menu, select **Restore to <original\_mailbox\_name>**. You can also use the shortcut menu command.



3. Veeam Explorer will try to connect to the original Exchange server and access the original mailbox using current account. If it does not have sufficient access rights, you will be prompted to enter the user account and password. Provide an account with sufficient access rights.

Restore will be performed with the following settings:

- Original Exchange server, original folder and original mailbox name.
- Both changed and missing items will be restored; restored items will be marked as unread.
- No folders will be excluded from restore (all folders from the backup will be recovered).

# Export to PST File

If you have a 64-bit version of Microsoft Outlook 2016, Microsoft Outlook 2013 or Microsoft Outlook 2010 installed on the computer running Veeam Explorer, you can export the entities you need to Personal Folder Files (.pst). in the default or custom location.

Export is supported for the following entities:

- Items
- Folders
- Mailboxes
- Mailbox stores

Other restore options include saving items, sending items by e-mail and restoring folders, items and mailboxes to the original or different Exchange server.

#### IMPORTANT!

Windows Search can conflict with exporting of items and folders. If the .pst file to which you are exporting is indexed at the same time, the exporting process may hang up. To avoid this, it is necessary to exclude .pst files from the indexing scope. For this, use the search box in the Windows **Start** menu to open the **Indexing Options** window, click **Modify** to open the **Indexed Locations** window and clear the **Microsoft Outlook** check box.

Alternatively, you can disable Windows Search completely in the **Windows Features** dialog box. Also note that if you are exporting .pst files to a shared folder, it is necessary to exclude Outlook files or disable Windows Search on the computer where the shared folder is located.

If you want export results to be delivered as specially generated reports, you need to configure appropriate settings, as described in Receiving Export Reports.

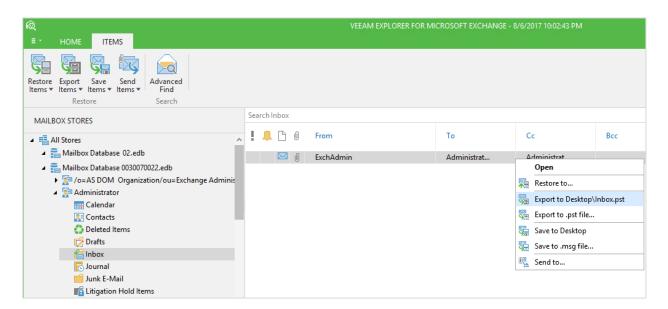
### 1-Click Export

For your convenience, Veeam Explorer allows you to quickly export mailbox store data directly to a single .pst file stored in the default location. Initially, this is the **Desktop** folder of the current user, then it will be the location of the latest export operation.

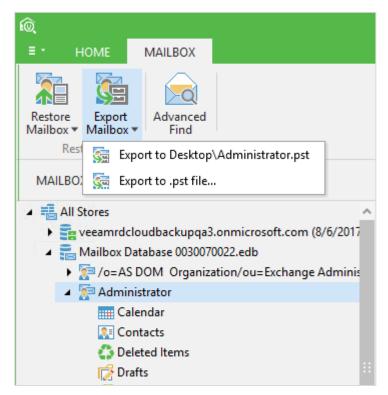
#### NOTE:

Remember that you need Microsoft Outlook installed on the computer running Veeam Explorer to perform the export operations.

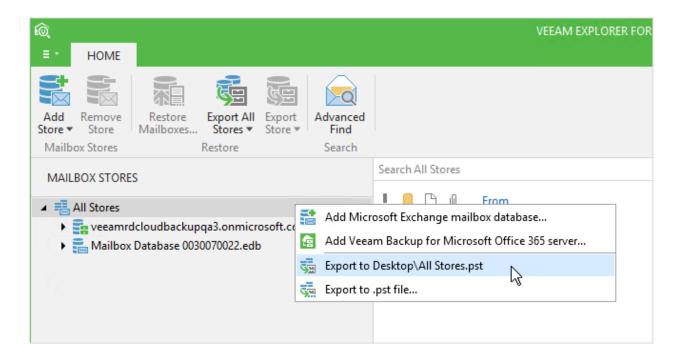
- To export a folder, select it in the navigation tree, then on the Folder tab select Export Folder > Export to <default\_location>\<original\_folder\_name>.pst, or use the corresponding shortcut menu command. Selected folder including all its subfolders will be exported to the specified destination.
- To export an item, select it in the preview pane on the right (multiple selection is supported), then on the Items tab select Export Items > Export to <default\_location>\<original\_folder\_name>.pst, or use the corresponding shortcut menu command. Selected item(s) will be exported to the specified destination.



To export a mailbox, select it in the navigation tree, then on the Mailbox tab select Export mailbox >
 Export to <default\_location> \ <original\_mailbox\_name>.pst, or use the corresponding shortcut menu command. Selected mailbox with all its content will be exported to the specified destination.



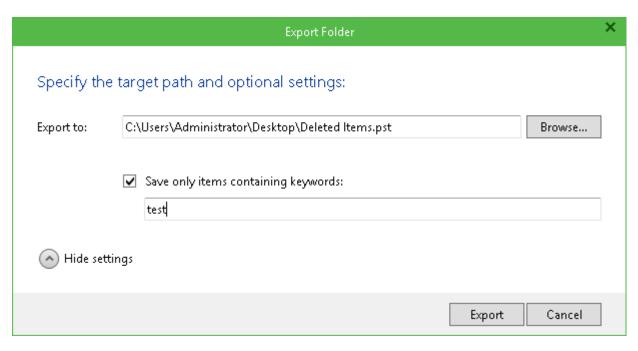
Similarly, you can export the selected mailbox store, or even all stores currently added to Veeam
 Explorer scope. For that, select, respectively, the required store node or the All Stores (root node), then
 use the corresponding Export command on the Home tab.



### **Export to Custom Location**

To export an entity to a custom location as a single .pst file:

- Select the entity you need in the preview pane (items) or in the navigation tree (all other entities folders, mailboxes, mailbox stores). Then on the corresponding ribbon menu tab click the Export
  command and select Export to .pst file.... You can also right-click the entity select Export to .pst
  file....
- 2. Specify the name and location for the target .pst file. If it does not exist, it will be created.
- 3. You can also click **Show settings** to show more controls that will allow you to export only items containing the keywords. Select the corresponding check box and enter the necessary keywords. Note that Veeam Explorer for Microsoft Exchange will look for the specified keywords in all message fields (**From**, **To**, **Subject**, **Body**). Items containing the keywords will be exported to the specified location; if you have configured Veeam Explorer settings to deliver reports on export results, this export operation will be reported with **Export type**: Search results (see "Receiving Export Reports" section for more information).



4. Click **Export** and wait for the operation to complete. Veeam Explorer for Microsoft Exchange will notify you of the operation results.

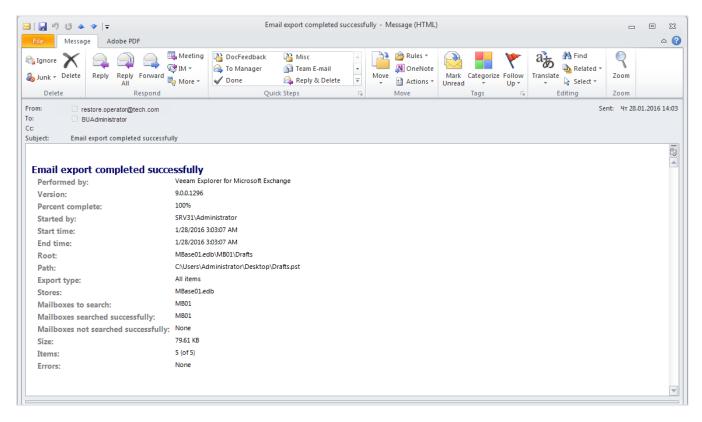
## Receiving Export Reports

Veeam Explorer for Microsoft Exchange can deliver detailed reports (like shown in the figure below) on export results if you configure appropriate settings:

- To deliver reports to a user who is currently logged on and working with Veeam Explorer, make sure that this user has a valid email address and that SMTP settings are configured appropriately in Veeam Explorer options (as described here).
- If you have configured email settings in Veeam Backup & Replication options for a different user account, that user will also receive reports by email. Note that if you enable these global settings during current Veeam Explorer session, they will take effect only at the next session, so you may need to close current restore session and then begin a new one.
- In addition, if you want the export report to be included in the .pst archive, you should make sure that a user currently working with Veeam Explorer has a valid email address.

  To view this report, open the exported .pst archive in Microsoft Outlook and expand Inbox in that archive it will contain an email message like shown in the figure below; From and To addresses will contain current user email.

Such a report can be generated upon 1-Click export or standard export operation; it provides detailed information on the operation performed.



Report fields include the following information:

- Performed by software component that performed the export operation, that is, Veeam Explorer for Microsoft Exchange.
- **Version** Veeam Explorer build number. To discover it, in Veeam Explorer main menu click **About** and in the splash screen check the second number (after the slash).
- Percent complete the number of items included in the exported .pst file, calculated as a percentage of the root object (all stores, mailbox store, mailbox, or folder). For example, if a folder contained 10 items, and 6 of them were exported due to search criteria, this value will be 60%. If the whole folder was exported, it will be 100%.
- Started by export initiator, that is, the account under which Veeam Explorer runs.
- Start time, End time report generation start and end time.
- Root relative path to the object (the entity in the mail database) from which data was exported. In the example shown in the figure above, this is MBase01.edb\MB01\Drafts, that is, the Drafts folder in the mailbox MB01 of the MBase01.edb mail database.
- Path full path to exported .pst file.
- **Export type** there are 3 types of export operations, depending on the export scope:
  - o All items the whole container selected for 1-click or regular export.
  - Selected items one or several items were selected for 1-click or regular export.
  - Search results only for regular export. This type of export takes place if you invoke the Export to .pst command for selected container and then in the Export dialog click Show settings, select the Save only items containing keywords option and enter the keywords you want to search for (see Exporting Folders and Items and Browsing, Searching and Viewing Items for details on using the keywords). After you click Export in this dialog, Veeam Explorer will look for the items containing the keywords and export them to the specified location.

- Stores datastore(s) containing exported items; in the example this is MBase01.edb.
- Mailboxes to search mailbox(es) containing exported items; in the example this is MB01. If, for
  instance, you select the whole datastore as a root object for export, all mailboxes in that datastore will
  be reported in this field.
- Mailboxes searched successfully, Mailboxes not searched successfully results for Mailboxes to search.
- Size total size of exported items
- Items X (of N) a number of exported items (of overall items number in the corresponding container).
- Errors number of errors that occurred during export.

If you exported the **search results** (see above for this export type explanation), then consider the following:

- The report will be entitled "Email export completed partially" (as generally only a part of the container is exported).
- The **Percent complete** field will contain the corresponding value (depending on how many items from the search scope matched the search keywords).
- The last field in the report will be **Keyword hits**. It will include the table showing:
  - o Keyword search criteria
  - o Hits number of items that matched the search keywords and thus were exported
  - Mailboxes number of mailboxes comprising the search scope

Percent complete: 66 Started by: SR Start time: 1/ End time: 1/ Root: MI Path: CA	3.0.0.1296 56% 5RV31\Administrator L/29/2016 2:44:25 AM L/29/2016 2:44:25 AM MBase01.edb\ch_link_D03\Inbox E-\Users\Administrator\Desktop\Inbox.pst		
Started by:   SR	SRV31\Administrator L/29/2016 2:44:25 AM L/29/2016 2:44:25 AM MBase01.edb\ch_link_D03\Inbox		
1/2   1/2	1/29/2016 2:44:25 AM 1/29/2016 2:44:25 AM MBase01.edb\ch_link_D03\Inbox		
End time: 1/2  Root: Mi Path: CA	./29/2016 2:44:25 AM MBase01.edb\ch_link_D03\Inbox		
Root: MI Path: CA	MBase01.edb\ch_link_D03\Inbox		
Path: CA			
	:\Users\Administrator\Desktop\Inbox.pst		
Export type: Se	Search results		
Stores: Mi	MBase01.edb		
Mailboxes to search: ch	th_link_D03		
Mailboxes searched successfully: ch	th_link_D03		
Mailboxes not searched successfully: No	None		
Size: 5.9	5.91 KB		
items: 2 (	2 (of 3)		
Errors: No	None		
Keyword hits:	Keyword	Hits	Mailboxes

# Saving Items

Veeam Explorer for Microsoft Exchange allows you to save any item as a Microsoft Exchange Mail Document (.msg file) to a specific location or directly to the user's desktop.

#### 1-Click Save

Veeam Explorer for Microsoft Exchange allows you to quickly save .msg files directly to the previously used location (initially this is current user's **Desktop**).

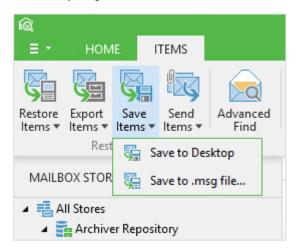
Do the following:

- 1. Browse to the necessary folder in the navigation tree; you can use the **Search** field in the preview pane on the right to see a list of items.
- 2. On the **Items** tab, click **Save Items** > **Save to** < *folder\_name* >, or use the item's shortcut menu command. By default, the name of the saved file will be the same as the subject field of the mail item.

### Saving to Custom Location

To save an item to a custom location, do the following:

- 1. Select the required item (or use **SHIFT** and **CTRL** keys to select multiple items), then on the **Items** tab select **Save Items** > **Save to .msg file**. You can use the item's shortcut menu command.
- 2. Specify the location for the file or files and click **OK**.

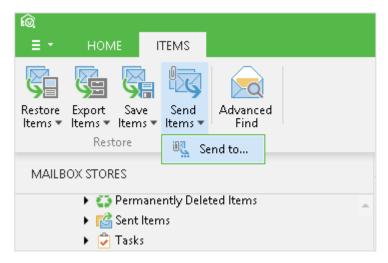


# Sending Items

Veeam Explorer for Microsoft Exchange allows you to send items as attachments to emails. To be able to send items as attachments, it is necessary to specify email settings. For details, see <u>Initial Configuration Settings</u> for Veeam Explorer for Microsoft Exchange.

To send an item as an email attachment:

1. Select the item (or use **SHIFT** and **CTRL** keys to select multiple items) in the preview pane on the right and click **Send Items** >**Send to** on the **Items** tab, or use the item's shortcut menu.



- 2. By default, From address will be filled in with that specified in the Veeam Explorer settings. If you are sending one or several items from a user's mailbox, then Veeam Explorer will try to obtain that user's email address using Active Directory information. If resolved successfully, this address will appear in the To field; otherwise, as well as if you selected to send items from different mailboxes, Veeam Explorer will put the same address in both From and To fields. You can also select Send to and then specify the email address manually.
- 3. In the **Send To** dialog you can also edit the subject and text of the email message. Default subject is *Mail Items Recovery*.

To edit the body text, click More details.



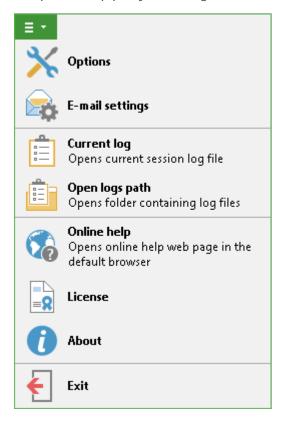
4. When finished, click Send.

# **Obtaining Log Files**

If you need to view current restore session log, go to the main menu of Veeam Backup for Microsoft Office 365 and select **Current log**. This will open the corresponding Veeam.Archiver.Shell\_<timestamp>.log file.

To open the folder where the management server log files are stored, select **Open logs path**. Default location of the log files is C:\ProgramData\Veeam\Backup365\Logs.

To open backup proxy server logs, use the same path on the backup proxy server.



To open log files of Veeam Explorer for Microsoft Exchange, use the **Open logs path** from its main menu. Default location is the C:\ProgramData\Veeam\Backup\ExchangeExplorer\Logs folder on the machine where Veeam Explorer runs.

# Appendix. Installation Checklist

Fill in the following checklists before you start installing the product. You can, in particular, print it out, fill in **Your information** and **Ready** cells and store this checklist in a secure location so that you have it at hand for maintenance or support case.

- Hardware and Software Requirements
- Required Ports
- Required Rights and Permissions
- Considerations and Limitations

# Hardware and Software Requirements

### Microsoft Exchange Organization

Requirement	Specification	Your information	Ready?	Comments
Exchange Organization	Microsoft Office 365 Exchange Online			System requirements and limitations for Office 365 can be found here.  Throttling policies for Exchange Online cannot be managed through Office 365 administrative interface, you need to contact Microsoft technical support to make changes.
	Microsoft Exchange 2016 or 2013			Limitations for backup and restore of mail items can be found in the "Considerations and Limitations" section of this guide.

### Veeam Backup for Microsoft Office 365 management server

Requirement	Specification	Your information	Ready?	Comments
Physical or virtual machine	For virtual machine: any version of VMware or Hyper-V supported by Veeam			
Hardware	CPU: any modern multi-core x64 processor, 4 cores minimum			8 cores recommended.
	Memory: 8 GB RAM minimum.			Additional RAM improves backup, restore and search performance. 19 GB recommended.

	Disk Space: 500 MB for product installation and additional free disk space for archives.	Disk space for archives depends on the amount of mailboxes, their change rate and the retention policy.
OS	<ul> <li>64-bit version of any of the following operating systems:</li> <li>Microsoft Windows         Server 2016</li> <li>Microsoft Windows         Server 2012 R2</li> <li>Microsoft Windows         Server 2012</li> <li>Microsoft Windows         Server 2008 R2 SP1</li> <li>Microsoft Windows         Server Windows</li></ul>	
Software	Mail restore requires <b>Veeam Explorer for Microsoft Exchange</b> 9.6 or later.	Is the Exchange Server running on Microsoft Windows ReFS 3.x file system?  If yes, then Veeam Explorer must be installed on the Microsoft Windows Server 2016.
	Microsoft .NET Framework 4.5.2 or later	
	Windows PowerShell 2.0 or later.	Windows PowerShell 4.0 is recommended.
	Update for Universal C Runtime (CRT) in Windows: https://support.microsoft.com/e n-us/help/2999226/update-for- universal-c-runtime-in-windows	
	Dynamic link library (ESE.DLL) must be in place	Is installed together with Microsoft Exchange.
	Microsoft Outlook 2010 or later (64-bit) (optional)	Required for PST export
	(optional) Veeam Backup & Replication or Veeam Agent for Windows for management server application-aware backup	Application-aware processing of Veeam Backup for Microsoft Office 365 server is supported starting by Veeam Backup & Replication 9.5 Update 3 (for virtual machine) and Veeam Agent for Windows 2.0 or later (for physical machine).

# Backup Proxy

Requirement	Specification	Your information	Ready?	Comments
Physical or virtual machine	For virtual machine: any version of VMware or Hyper-V supported by Veeam			The machine must belong to the same (or trusted) domain as the Veeam Backup for Office 365 server.
Hardware	CPU: any modern multi-core x64 processor, 4 cores minimum.			8 cores recommended.
	Memory: 8 GB RAM minimum.			Additional RAM improves backup performance. 16 GB recommended.
OS	64-bit version of any of the following operating systems:  Microsoft Windows Server 2016  Microsoft Windows Server 2012 R2  Microsoft Windows Server 2012  Microsoft Windows Server 2008 R2 SP1  Microsoft Windows 10  Microsoft Windows 8.x  Microsoft Windows			

# Backup Target

Requirement	Specification	Your information	Ready?	Comments
Disk-based storage	Any of the storage systems listed below:			Storage must be accessible from backup proxy.
	Local (internal) folder of the backup server			
	Direct Attached Storage (DAS), connected to the backup server, including external USB/eSATA drives and raw device mapping (RDM) volumes.			

Storage Area Network (SAN)	Management server must be connected to the SAN fabric via hardware or virtual HBA, or software iSCSI initiator.
SMB 3.0 share (experimental support)	Experimental support; management server's computer account must have corresponding permissions on the proxy server and on the network share. For additional information on using network shares, refer to the "System Requirements" of this guide.

# Required Ports

From	То	Protocol	Port	Open on	Purpose	Ready?
Veeam Backup for Office 365 management server	Microsoft Exchange Online	ТСР	80, 443, optionally 587	Veeam Backup for Office 365 management server	Connection to Microsoft Exchange Online via EWS.  If you plan to use Exchange Online as a mail server for sending notifications, open port 587.	
	Backup proxy server	ТСР	9193	Backup proxy server	Data communication with the Veeam Backup for Office 365 management server.	
Clients	Veeam Backup for Office 365 management server	ТСР	9191	Veeam Backup for Office 365 management server	data communication between server and clients: RESTful API, PowerShell and Veeam.Archiver.Shell (UI), and, optionally, connection to remote management server (if any).	
Veeam Explorer for Microsoft Exchange	Veeam Backup for Microsoft Office 365 server	TCP	9194	Veeam Backup for Office 365 management server	Data communication between solution components, as well as for Veeam Explorer for Microsoft Exchange RESTful API and PowerShell.	
Backup proxy server	Veeam Backup for Microsoft Office 365 management server	ТСР	9191	Veeam Backup for Office 365 management server	Data communication with backup proxy.	

Microsoft Ex Online	change TCP	80, 443	Backup proxy server	Connection to Microsoft Exchange Online via EWS.	
------------------------	------------	---------	------------------------	--	--

# Required Rights and Permissions

# Backup

Account	Requirement	Your information	Ready?	Comments
Veeam Backup for Microsoft Office 365 Service account	Local System			Default setting that cannot be changed.
Veeam Backup <i>Proxy</i> for Microsoft Office 365 Service account	Local System			Default setting that cannot be changed.
Account used to connect to the Exchange organization and add it to VBO365 infrastructure	Membership in that Exchange organization, with the following roles:  1. Organization Management 2. Application Impersonation 3. View-Only Configuration 4. View-Only Recipients			Having a mailbox in that organization is optional. See the "Permissions" section of this guide for more information.
Sender of notifications on backup job results	Must be delegated the rights to connect to specified SMTP server.			Sending notifications is optional.
User account that will be used to connect to the Windows server where the backup proxy will run.	Local Administrator rights for the backup proxy server.			This can be the account currently logged in (default option), or another account. See the "Configuring Backup Proxies" section of this guide.

# Restore

Account	Requirement	Your information	Ready?	Comments
Account under which Veeam Explorer runs on the remote machine	Local administrative rights on the Veeam Backup for Microsoft Office 365 server			Specified in the Veeam Backup for Microsoft Office 365 application launcher when connecting to Veeam Backup for Microsoft Office 365 management server.

Account under which Veeam Explorer for Microsoft Exchange runs	Sufficient rights for Active Directory access:  o Included in the domain Administrators or Organization Management group -OR-  o Read permission for the objectClass attribute of the Microsoft Exchange System Object container. Make sure to select the Apply these permissions to objects and/or containers within this container only option.	maill name Syste	olve mailboxes (discover box addresses for specified es) and filter out Exchange em Mailboxes when oring mailboxes.
Account specified in Restore Wizard to connect to target Exchange Online organization	Access rights for the target organization		
Account that will be used for restore to a public folder	Mailbox ownership on the target Exchange server.		
Account specified in Restore Wizard to connect to target on-premises Exchange organization	<ul> <li>If it owns a mailbox on target, then Full Access to that mailbox is required.</li> <li>If it does not own a mailbox on target (for example, a service account), then access rights for target mailbox should be granted through Exchange impersonation</li> </ul>		the "Permissions" section of guide for more information.

# Considerations and Limitations

Considerations and limitations specific for the Veeam Backup for Microsoft Office 365 v1.5 are listed on page 29 of this guide.