## **Configuration Note**

AudioCodes One Voice for Microsoft<sup>®</sup> Skype for Business

# CloudBond<sup>™</sup> 365

## Backup and Restore Functionality

Version 9.5 – Update 4





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### **Abbreviations and Terminology**

Each abbreviation, unless widely used, is spelled out in full when first used.

### **Related Documentation**

Document Name
Veeam Endpoint Backup User Guide Version 1.1
http://veeampdf.s3.amazonaws.com/guide/veeam_endpoint_backup_1_1_userguide.pdf
or https://s3.eu-central-1.amazonaws.com/downloads- audiocodes/CB365Backup/CB365_Backup_Docs.zip
Veeam Backup & Replication User Guide Hyper V Environments Version 9.5 update 4
https://helpcenter.veeam.com/docs/backup/hyperv/overview.html?ver=95u4
or https://s3.eu-central-1.amazonaws.com/downloads- audiocodes/CB365Backup/Docs+for+Veeam+Backup+version+9.5+Update+4.zip

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### **Documentation Feedback**

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## 1 Introduction

This document describes how to configure and use the CloudBond backup and restore functionality.

The functionality uses two third-party components:

- Veeam Agent: A designated tool installed on the host server to back up the host itself, without its virtual machines (i.e., Front End and Edge servers).
- Veeam Backup and Replication (VBR): A designated tool installed on the CloudBond host server or on an external server, to back up the CloudBond virtual machines (VM) only.

CloudBond products are divided to two main topologies, and two different hardware types:

- Main Topologies:
  - Standalone configuration
  - Pool-paired branch Branch Pool Appliance (BPA)
- Hardware:
  - Mediant 800
  - HP Server (host)

Some procedures require a different setup, depending on hardware and topology. If a different setup is required, the correct hardware and topology is noted.



**Note:** Backup and restore are critical functions. It is important to follow all steps described in the procedures in this document. Do not skip any steps when performing Backup or Restore.



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## 2 Backup Architecture

This section describes the different backup architecture options and components which are used for CloudBond 365. Veeam components consist of the following:

- Veeam Agent
- VBR Manager
- Backup Repository

One of the important issues regarding backup and restore procedures is the location of CloudBond 365 – whether it is at the Service Provider or at the customer premises. The backup and restore infrastructure must be on the same local network as the CloudBond 365. This document does not distinguish between the different locations of the CloudBond 365. The setup is similar for both locations You must design your architecture with the limitation

The setup is similar for both locations You must design your architecture with the limitation that the backup and restore infrastricture must be on the same LAN as the CloudBond 365 (except for the cloud repository that is always on the cloud).



Figure 2-1: Backup Architecture on Premises







### Figure 2-2: Backup Architecture on Service Provider



= Veeam Agent

## 2.1 Using Veeam Products

The following Veeam products are discussed below:

- Veeam Agent
- VBR

### 2.1.1 Veeam Agent

Veeam Agent software is installed on every CloudBond 365. This software only backs up the Host server. For standalone configurations, the system volume and extra volume/files are also backed up. For BPA topology, there is usually no database for the paired CloudBond 365 server and therefore the system volume and extra volume/files are not backed up.

### 2.1.2 VBR

VBR is a distributed system. CloudBond uses only part of the available components. The Veeam Backup Server is the VBR management component and can be run on the CloudBond Host or it can be run on external server. If the Backup Repository is external and it is a Windows server, it is recommended to run the VBR Manager so that it can back up several CloudBond systems on the same branch.

## 2.2 Using VBR Components

The following describes how to use VBR components.

### 2.2.1 VBR Manager

The VBR manager can be run on the CloudBond 365 host or on an external server. The external server can run the backup repository and the VBR Manager. To run the VBR Manager on an external server, refer to the server requirements in the *Veeam Backup & Replication User Guide* under **Planning and Preparation > Requirements > System Requirements > Veeam Backup Server**.

### 2.2.2 Backup Repository

The Backup Repository can be external. There are several types of Backup Repositories which are supported and can be used:

- Microsoft Windows server with local or directly attached storage
- Linux server with local, directly attached storage or mounted NFS
- Common Internet File System (CIFS)

For more information, refer to the *Veeam Backup & Replication User Guide* under **Overview > Solution Architecture > Components > Backup Repository**.



**Note:** The repository can be a local disk connected to CloudBond 365. However, this document does not describe this topology in details.

### 2.2.2.1 Backup Repository Size

The following lists backup repository size requirements per CloudBond 365 type:

- Standard Box Edition: 150 GB
- Standard Plus Box Edition: 200 GB
- Pro Box Edition: 300 GB
- Enterprise Box Edition: 300 GB



**Note:** It is not intended for the Backup tool to back up the CloudBond 365 SBC. To back up the CloudBond 365 SBC, it is recommended to manually backup the SBC Settings INI files and VM. The VM can also be found on the CloudBond 365 USB. For more information, refer to the Saving Configuration sub-section of the *AudioCodes SBC User's Manual*.

### 2.3 Firewall

There are several ports used between the CloudBond 365 server and the Veeam components that must be open if the Firewall is used on the network. Refer to the list of ports requirements in the *Veeam Endpoint Backup User Guide* under **System Requirements** > **Used Ports**.

## 3 Installing Veeam Agent and VBR

This section describes how to install and configure Veeam Agent and VBR. Version 9.5 - Update 4 backup and setup files can be downloaded from:

- <u>https://s3.eu-central-1.amazonaws.com/downloads-</u> <u>audiocodes/CB365Backup/Version+9.5/VeeamBackup%26Replication\_9.5.4.2615.Upd</u> <u>ate4.iso</u>
- <u>https://s3.eu-central-1.amazonaws.com/downloads-</u> audiocodes/CB365Backup/Version+9.5/VeeamAgentWindows\_3.0.0.748.zip

When selecting this hyperlink, the following files appear in the WinZip window:

- Veeam Agent for Windows 3.0.0.748.zip
- VeeamBackup&Replication\_9.5.4.2615.Update4.iso

## 3.1 Installing Veeam Agent on the Host Server



**Note:** This document is applicable to Veeam Agent version **3.0.0.748**.

The Veeam Agent should be installed on the host server. If you already have the current version 3.0.0.748 installed, skip this procedure.

If you have an older version, install the new one and follow the upgrade instructions. This requires two re-boots.

To confirm that Veeam Agent has been installed, search for Veeam Endpoint backup on the **Start** window.

To confirm which version is installed on your system, open **Veeam Endpoint Backup** and navigate to the **Update** menu.

### > To install Veeam Agent on the host server:

- 1. Unzip *VeeamAgentWindows\_3.0.0.748.zip* file
- 2. Run the VeeamAgentWindows\_3.0.0.748.exe file.

### Figure 3-1: WinZip Security Warning

VeeamAgentWindows_3.0.0.748 (1	)	v c	,   [
Name		Date modified	Тур
VeeamAgentWindows 3	0.0.748	12/26/2018 4:33 PM	Арр
•	Run as administra Troubleshoot com	tor npatibility	
	Pin to Start		

When the following screen appears, select the 'I accept...' checkboxes.
 Figure 3-2: Veeam Endpoint Backup

Veeam Agent for Microsoft Windows	×
V.	
With Veeam Agent for Microsoft Windows, you can easily back up your machine to an external hard drive, NAS share or a Veeam backup repository. And if you ever need to get your data back, there are multiple easy recovery options available.	
<ul> <li>✓ I accept the terms of the <u>Veeam license agreement</u></li> <li>✓ I accept the terms of the <u>3rd party components license agreement</u></li> </ul>	<u>s</u>
Install	
I. Click Install.	

5. Select the 'Skip this, I will...' checkbox.

Figure 3-3: Veeam Endpoint Backup - Next

## Veeam Agent for Microsoft Windows

X



### Insert backup target now

If you plan to backup to an external USB drive, plug it in now and we will configure protection with the recommended settings for you. You will be able to change the default configuration later.

🗹 Skip this, I will configure backup later



- 6. Click Next.
- 7. Clear the 'Run Veeam Advanced Recovery creation wizard' check box.
- 8. Click Finish.

Figure 3-4: Veeam Endpoint Backup - Finish



9. If the old version (2.0.x) was initially installed for Veeam Agent, a **Reboot** is required.

## 3.2 Installing the license for Veeam Agent

1. Select the About screen.

### Figure 3-5: About screen



2. Click Manage license and edition.

### Figure 3-6: Manage License and Edition



## Click Install, and then navigate to the .*lic file* you received from AudioCodes. Figure 3-7: Manage License and Edition - Install

Edition:

- Free. Provides a simple solution for backing up Windows-based desktops and laptops. Ideal for, but not limited to personal use.
- O Workstation. Entitles you for 24.7.365 technical support and adds features for mobile users protection and support for remote management.
- Server. All features of Workstation edition, plus full server support via applicationaware processing and server-focused job scheduler.

License:







4. When this step has finished, click Close.

### Figure 3-8: Manage License and Edition - Close

Edition:

- Free. Provides a simple solution for backing up Windows-based desktops and laptops. Ideal for, but not limited to personal use.
- Workstation. Entitles you for 24.7.365 technical support and adds features for mobile users protection and support for remote management.
- Server. All features of Workstation edition, plus full server support via applicationaware processing and server-focused job scheduler.

License:

```
License expiration: 2/17/2029 12:00:00 AM (3628 days left)
Issued to: Tal Itzhaki (tal.itzhaki@audiocodes.com)
Workstations: 300
Servers: 100
Support ID: 01735914
```

Install

Revoke



**5.** Verify that the license was installed.





## 3.3 Installing VBR

The VBR can be installed on every CloudBond 365 Host or on the recommended external server (the same server that can be used as the backup repository).

Before you begin the installation process, check the following prerequisites:

- The computer on which you plan to install Veeam Backup & Replication must meet the system requirements. Refer to the server requirements in the Veeam Backup & Replication User Guide under Planning and Preparation > Requirements > System Requirements > Veeam Backup Server.
- Communication between components requires a number of ports to be open. Refer to the Requirements > Used Ports section in the Veeam Endpoint Backup User Guide.



Note: The VBR installation requires a server restart.

### To install the VBR:

1. Right-click the *VeeamBackup&Replication\_9.5.4.2615.Update4.iso*, and then from the menu, select **Mount**.



Figure 3-10: Menu Options - Mount

2. In the 'Veeam Backup & Replication 9.5' Setup file, select Run as administrator.



3. On the **Welcome** step of the wizard, click **Install** to start the installation.

Figure 3-12: Welcome



- **4.** Read the license agreement and then accept the terms for both the Veeam License Agreement and the 3<sup>rd</sup> party components license agreements.
- 5. Click Next.



阁 Ve	eam Backup & Re	eplication Setu	p L	_ <b>D</b> X
License Agreement Please read the following license ag	reement carefully.			闾
End Use	Veeam Software r Software License	("Veeam") Agreement ("EUL	A")	^
IMPORTANT - READ CAREFULLY This EULA is a legally binding agreement between licensee end user ("End User") and Veeam setting forth the terms and conditions governing the use and operation of Veeam's proprietary computer software products (the "Software") and the written technical specifications for the use and operation of the Software (the "Documentation"). Where the sense and context permit, references in this EULA to the Software include the Documentation. By downloading and installing, copying or otherwise using the Software, and for atherwise accepting this EULA for the permit to be being the terms and				) and /eeam's ere the ftware, and $\checkmark$
<ul> <li>I accept the terms of the Veear</li> <li>I accept the terms of the 3rd part</li> </ul>	n license agreement rty components license	agreements		View
		< Back	Next >	Cancel

Figure 3-13: Veeam Backup and Replication Setup



**Note:** You must have a valid trial license or full paid license for Veeam Backup & Replication.

6. If you have the full license, click on **Browse** to locate it, and then click **Next**.

Figure 3-14: Provide License

Veeam Backup & Replication Setup	x
Provide License Provide license file for Veeam Backup & Replication.	闾
License file for Veeam Backup & Replication:	
C:\Users\Administrator\Desktop\veeam_backup_perpetual (2).lic Browse	
f vou dan't have a license file, just click. Next the software will operate in Community Edition mode).	
in you don't mave a license file, just click mext (the soltware will operate in continunity Edition mode).	
< Back Next > Cance	ł

7. Select the three features to be installed (as shown in the figure below), and then click **Next**.

闿	Veeam Backup & Replication Set	up 🗕 🗆 🗙
Progra Select the	<b>m features</b> program features you want to be installed.	習
	▼         Veeam Backup & Replication           ▼         Veeam Backup Catalog           ▼         Veeam Backup & Replication Console	Component description Veeam Backup & Replication is enterprise-ready solution that combines backup and replication in a single product for fast recovery of your VMware vSphere and Microsoft Hyper-V environments.
Install to:	C:\Program Files\Veeam\Backup and Replication\	Browse
	< Back	Next > Cancel

Figure 3-15: Program Features

The setup checks your system for potential installation problems.

8. Click install.

### Figure 3-16: System Configuration Check

Veeam Backup & Replication Setup	_ □ ×
System Configuration Check Please wait while setup is checking your system for potential installation problems.	習
Requirement	Status
Microsoft System CLR Types for SQL Server 2014	😣 Failed
Microsoft SQL Server 2014 Management Objects	😣 Failed
Microsoft Report Viewer Redistributable 2015	😣 Failed
Microsoft PowerShell v2.0	Passed
Microsoft Universal C Runtime	Passed
Your computer does not meet minimum requirements. Click the "Install" button to deploy missing features.	Re-run
< Back Next >	Cancel

The missing components are installed.

### 9. Click Next.

### Figure 3-17: System Configuration Check

	Veeam Backup & Replication Setup	<b>– – x</b>
<b>Sys</b> t Please	tem Configuration Check e wait while setup is checking your system for potential installation problems.	
Rec	quirement	Status
Mic	rosoft System CLR Types for SQL Server 2014	Passed
Mic	rosoft SQL Server 2014 Management Objects	Passed
Mic	rosoft Report Viewer Redistributable 2015	Passed
Mic	rosoft PowerShell v2.0	Passed
Mic	rosoft Universal C Runtime	Passed
		Rerun
	< Back Next >	Cancel

### **10.** Select the 'Let me specify different settings' check box, and then click **Next**.

### Figure 3-18: Default Configuration

	Veeam Backup & Replication Setup	<b>– – X</b>				
Default Configuration Click Install to deploy Veeam Backup & Replication with the default configuration settings, or select the check box below to customize them on the following wizard steps.						
Configuration settings:						
Installation folder:	C:\Program Files\Veeam\Backup and Replication\	^				
vPower cache folder:	D:\ProgramData\Veeam\Backup\NfsDatastore					
Guest catalog folder:	D:\VBRCatalog					
Catalog service port:	9393	=				
Service account:	LOCAL SYSTEM					
Service port:	9392					
Secure connections port:	9401					
SQL Server:	WIN-15FM3LKQ9P3\VEEAMSQL2016	~				
Let me specify different	t settings					
	< Back Next >	Cancel				

### **11.** Click the **Local System account** option, and then click **Next**.

跑	Veeam Backup & Replication Setup
Service Account Specify the account f	or Veeam Backup & Replication service.
LOCAL SYSTE	EM account (recommended)
<ul> <li>The following u</li> </ul>	user account:
Sp	Type in the user name in the DOMAIN\USERNAME format. The specified user account must have local administrator privileges on this server.
User name:	WIN-15FM3LKQ9P3\Administrator V Browse
Password:	
	< Back Next > Cancel

### **12.** Select the default settings, and then click **Next**.

### Figure 3-20: SQL Server Instance

题	Veeam Backup & Replication Setup 📃 🗖 🗙
SQL Server Choose SQL Serve	Instance rinstance to create Veeam Backup & Replication databases on. 민지
<ul> <li>Install ne</li> <li>Use exist</li> </ul>	w instance of SQL Server (localhost\VEEAMSQL2016) ting instance of SQL Server (HOSTNAME\INSTANCE)
WIN-15 Veeam E	FM3LKQ9P3\VEEAMSQL2016 Browse Backup & Replication database: VeeamBackup
Connect to Window	SQL Server using
O SQL Se	erver authentication using the Login ID and password below:
Login II	D: sa
Passwo	ord:
	< Back Next > Cancel

13. Select the default settings, and then click Next.

### Figure 3-21: Port Configuration

	/eeam Backup & Replication Setup	- 🗆 X
Port Configuration Specify port configuration to be u	sed by Veeam Backup & Replication.	闾
Catalog service port:	9393	
Veeam Backup service port:	9392	
Secure connections port:	9401	
	< Back Next >	Cancel

14. For the 'Catalog folder', click **Browse** to select "C:\VBRCatalog".



**Note:** You first need to create this folder.

#### 15. Click Next.

### Figure 3-22: Data Locations

迥	Veeam Backup & Replication Setup	<b>– – X</b>
Data Locati Specify where gue (non-persistent dat	<b>ons</b> est file system catalog (persistent data), and vPower NFS write cache ta) should be stored.	阎
VPower NFS Write D:\Pro Dedicated volu VMs running fro instantly recov	cache folder: ogramData\Veeam\Backup\VfsDatastore ume is recommended. The write cache temporarily stores data written to rom backup file. Make sure the selected volume has sufficient free disk sp vered VMs will stop due to being unable to perform a disk write.	Browse virtual disks of bace, otherwise
Guest file syst	i <b>tem catalog</b> og folder: RCatalog	Browse
	< Back Next >	Cancel

16. Click Install.

		Figure 3-23: Ready to Install				
N	<b>月</b>	Veeam Backup & Replication Setup	_ 🗆 X			
	Ready to Install The wizard is ready to begin	the installation.				
	Veeam Backup & Replicati	on will be installed with the following configuration:				
	Installation folder:	C:\Program Files\Veeam\Backup and Replication\	^			
	vPower cache folder:	D:\ProgramData\Veeam\Backup\NfsDatastore				
	Guest catalog folder:	C:\VBRCatalog				
	Catalog service port:	9393	=			
	Service account:					
	Service port:	9392				
	Secure connections port:	9401				
	SQL Server:	WIN-15FM3LKQ9P3\VEEAMSQL2016	~			
	Check for updates once the product is installed and periodically					
		< Back In	stall Cancel			

The installation process begins.



闿	Veeam Backup & Replication Setup	_ <b>D</b> X
Installing Ve This step displays t	eeam Backup & Replication the progress of the installation.	記
Installing Micr	rosoft SQL Server 2016 Service Pack 1 Express	
	< Back Next >	Cancel

**17.** Click **Finish**, and then close the above screen.

Figure 3-25: Completing Veeam Backup and Replication Wizard





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## 4 **Configuring License and Credentials**

The following procedure describes how to configure the license and credentials.

## 4.1 Installing the License

If the license was not supplied during the Installation step, you must install a license.

- To install the license:
- 1. Open the VBR Console from the desktop by double-clicking the Veeam Backup menu icon.
- 2. Open the **Help** menu and navigate to the **License** sub-menu.

習	SERVER TOOLS		
≣-			
1	Upgrade		
	Manage Credentials		
	Manage Cloud Credentials		
	Manage Passwords		
	General Options		
20	Users and Roles		
8	Network Traffic Rules		
	Configuration Backup		
	Console	Þ	
•	Color Theme	Þ	
	License		
	Help	Þ	
×	Exit		

Figure 4-1: Help – License Menu

3. From the License menu click Install License, and then select the license file.



L	CENSE INFORMATION	×
License Instances		
Status	Valid	Install License
Expiration date	2/17/2029 (3950 days left)	Update Now
Туре	Rental	Report
Edition	Standard Edition	
Licensed to	AudioCodes	
Contact person	Tal Itzhaki	
Instances	300 (0 used + 0 new)	
Monitoring	No	
Support ID	01735914	
Support expiration date	12/27/2019 (610 days left)	

### Figure 4-2: License Information

## 4.2 Assigning VBR Console Credentials and VBR Roles

The account used to start the VBR console must have the Local Administrator permissions on the Veeam backup server.

You can assign one of the following roles to users or groups of users:

- Veeam Backup & Replication
- Veeam Restore Operator
- Veeam Backup Viewer
- Veeam Backup Operator
- Veeam Backup Administrator

A role assigned to the user defines the user activity scope and what operations in Veeam Backup & Replication the user can perform. Role security settings affect the following operations:

- Starting and stopping jobs
- Performing restore operations

By default, during installation the Veeam Backup Administrator role is assigned to users in the Local Administrators group. If you change the default settings, make sure that you assign the Veeam Backup Administrator role to the necessary user account. Changing the role is done through the Users and Roles menu option accessible from the main menu.

By default, the Local Administrators group is defined as the Veeam Backup Administrator.

You can confirm this by following this procedure.

### To confirm the Veeam Backup Administrator:

1. From the VBR main console screen, click the **Menu** icon (in the top-left corner of the screen); the following menu options appear:



### Figure 4-3: Users and Roles



2. Select Users and Roles; the following screen appears.

	Security	
User or group	Role	Add
State Administrators	Veeam Backup Administrator	Edit
		Remove
	ОК	Cancel

#### Figure 4-4: Security



**Note:** On the Mediant 800, where the host is the Domain Controller (DC), this is the CloudBond 365 domain Administrator group and not the local server Administrator group.

- 3. Select the User or Group, and then click **Edit**.
- 4. Confirm that the role is correct, and then click **OK**.

### 4.2.1 Adding a User and Role for Veeam Agent

You need to add a user for the Veeam Agent and assign a role to it.

#### Notes:



- Every CloudBond 365 must have a different user (with a different user name) for the Veeam Agent because the name of the user is part of the directory path on the backup file system. Add a user that has local Administrator credentials e.g., CloudBondVEB1.
- If you have several CloudBond 365 devices that use the same backup repository, even if they are standalone, you must allocate different user names for the Veeam Agent.

## 4.2.1.1 For CloudBond 365 Pro Box / Enterprise Box Editions (or VBR on External Server)

The following procedure describes how to add a new user for CloudBond 365 Pro Box / Enterprise Box Editions.

- > To add a new user for CloudBond 365 Pro Box / Enterprise Box Editions:
- 1. Create the user as a local Administrator that belongs to the Local Server Administrators group.
- 2. Open the Local User and Groups using Microsoft Management Console (MMC).

🔂 C	onsole1 - [Cons	ole Root\Lo	cal Users and Groups (Local)\Us	ers] 🗕 🗖 🗙			
ᡖ File Action View I	Favorites Window	/ Help		_ <i>8</i> ×			
🗢 🄿 🖄 📰 🙆 🗟							
Console Root	Name	Full Name	Description	Actions			
⊿ Set Local Users and Gro ☐ Users	Administrator		Built-in account for administering	Users 🔺			
Groups	Suest Guest		Built-in account for guest access t	More Actions 🕨			
< III >							

### Figure 4-5: Local User and Groups

- 3. Enter the new user details on the New User screen.
- 4. Click Create.

		New Us	er	?	X	
User name:	Cloud	BondVEB1				
Full name:	Cloud	BondVEB1				
Description:	Cloud	Bond Backup 1				
Password:		•••••				
Confirm passwor	Confirm password:					
User must ch	nange pa	assword at next lo	ogon			
User cannot	change	password				
Password ne	ver expi	res				
Account is disabled						
·						
Help			Create	Close	e	

Figure 4-6: Creating a New User

- 5. On the CloudBondVEB1 Properties screen, click the **Member of** tab.
- 6. Add the new user to the Local Administrators Group, and then click Add.
- 7. Click OK.

### Figure 4-7: Adding to Administrators

CloudBondVEB1 Properties	? X
	<b>D</b>
Remote control Remote Desktop Services Profile	Dial+in
General Member Of Profile Environment	Sessions
Member of:	
Administrators	
🖉 Users	
Changes to a user's group me	embership t time the
Add Remove and are not caree and the next	and the
OK Cancel Apply	Help

**Configuration Note**
#### 4.2.1.2 For CloudBond 365 Standard Box Edition

The following procedure describes how to add a new user for CloudBond 365 Standard Box Edition.

- > To add a new user for CloudBond 365 Standard Box Edition:
- 1. Create the new user on the CloudBond 365 domain which belongs to the CloudBond 365 domain Administrators group.
- 2. Open the Active Directory User and Computers tool.

#### Figure 4-8: Active Directory Users and Computers



- 3. Select the **Users** folder and create a new user.
- 4. On the New Object User screen, enter the name details, and then click Next.

#### Figure 4-9: New Object – Name Details

Active Directory Users and Computers			
File Action View Help	New Object - User		
<ul> <li>Active Directory Users and Com</li> <li>Saved Queries</li> <li>Source Queries</li> <li>Source Queries</li> <li>Source Queries</li> <li>Source Queries</li> <li>Source Queries</li> <li>Source Queries</li> <li>Builtin</li> <li>Computers</li> <li>Domain Controllers</li> <li>ForeignSecurityPrincipal:</li> <li>Managed Service Accour</li> <li>Users</li> </ul>	Create in:       cloudbondA365.com/Users         Eirst name:	ount this this this this this this	
< III > 3		thic	
	< <u>B</u> ack <u>N</u> ext > Cancel		
0			

5. Enter the password credentials, and then click **Next**.

1	New Object - User	x
🧏 Create in: cloud	bondA365.com/Users	
Password:	•••••	
Confirm password:	•••••	
User must change passwo	rd at next logon	
User cannot change pass	word	
Password never expires		
Account is disabled		
	< Back Next > Car	icel

Figure 4-10: New Object – Password Details

6. Click Next.

#### Figure 4-11: New Object – Finish

New Object - User	x
Create in: cloudbondA365.com/Users	
When you click Finish, the following object will be created:	
Full name: CloudBondVEB1	^
User logon name: CloudBondVEB1@cloudbondA365.com	
The password never expires.	
	~
< <u>B</u> ack Finish	Cancel

7. Click Finish.

### 4.2.2 Assigning a Role for the Veeam Agent User

The following procedure below describes how to assign a role for the Veeam Agent user.

- > To assign a role for the Veeam Agent user:
- 1. From the VBR main console screen, click the **Menu** icon (in the top-left corner of the screen); the following menu options appear:

訳 SERVER TOOLS Ξ· Upgrade Manage Credentials Manage Cloud Credentials Manage Passwords General Options Users and Roles Network Traffic Rules Configuration Backup Console ⊧ Color Theme Þ License Help Þ Exit

#### Figure 4-12: Users and Roles



2. Select **Users and Roles**; the following screen appears.

	Security
User or group Administrators	Role Add Veeam Backup Administrator Edit Remove
	Add User X
User or group: [ Role:	leeam Restore Operator V OK Cancel
	OK Cancel

- 3. Click Add.
- 4. In the 'user or group' field, enter the user that was created before for the Veeam Agent or use **Browse** to select it.
- 5. From the 'Role' drop-down list, select **Veeam Backup Administrator**.

#### Figure 4-14: Add User

	Add User	x
User or group:	WIN-NR1LEU2FL1R\CloudBondVEB1 Browse	
R <u>o</u> le:	Veeam Backup Administrator	
	OK Cancel	

#### Figure 4-13: Security

6. Click **OK**; the new role has been added.

Figure 4-15: Security – with Added Role

	Security	X
User or group	Role	<u>A</u> dd
Administrators	Veeam Backup Administrator	
Sector WIN-NR1LEU2FL1R\CloudBon	Veeam Backup Administrator	<u>E</u> dit
		<u>R</u> emove
-		
	0	K Cancel

7. Click OK.



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## 5 Backing up the Repository

The following procedures describe how to setup the backup repository.

## 5.1 Adding Backup Repository

The following procedure describes how to add a backup repository in VBR.

- To add a backup repository:
- 1. Open the VBR main console screen.
- 2. From the menu options on the left-side of the screen, select **Backup Infrastructure** and navigate to **Backup Repositories**.
- 3. Right-click on the repository and then, select Add Backup Repository.

E- HOME BACKUP REPOS	ITORY			
Add Edit Repository Repository Manage Repository	grade			
BACKUP INFRASTRUCTURE	Q Type in an object name to search for	×		
<ul> <li>Backup Proxies</li> <li>Backup Repositories</li> <li>External Repositories</li> <li>WAN Accelerators</li> <li>Service Providers</li> <li>Managed Servers</li> <li>Microsoft Windows</li> </ul>	NAME T TYPE Default Backup Rep Windows	HOST PATH WIN-15FM3LK D:\B	H CAPACITY ackup 410.4 GB	FREE 409.4 GB

#### Figure 5-1: VBR Backup Repository



4. Select the type of backup repository you wish to add. (in this example it would be **Direct** attached storage).

#### Figure 5-2: Add Backup Repository





Select the operating system type of a server you want to use as a backup repository.

#### Microsoft Windows

Adds local server storage presented as a regular volume or Storage Spaces. For better performance and storage efficiency, we recommend using ReFS.

<u>^</u>	
<u> </u>	

Linux

Adds local server storage, or locally mounted NFS share. The Linux server must use bash shell, and have SSH and Perl installed.

×

6. On the New Backup Repository screen, enter the **Name** and **Description** of the repository, and then click **Next**.

	New Backup Repository
Name Type in a name and o	description for this backup repository.
Name	Name:
Server Repository	Description: Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 7:56 AM.
Mount Server	
Review	
Apply	
	< Previous Next > Finish Cancel

Figure 5-4: New Backup Repository - Name

7. On the New Backup Repository - Server screen, click Add New.

#### Figure 5-5: New Backup Repository - Server

	New Backup	Repository		x
Server Choose repository se	rver. You can select server from the li	t of managed servers added to the	e console.	
Name	Repository server:			
Seprer	WIN-15FM3LKQ9P3 (Backup serve	r)	~	Add New
Repository Mount Server Review Apply	Path •	Capacity	/ Free	Populate
		< Previous Next >	Finish	Cancel

8. In the 'DNS name or IP address' field, enter the IP address/DNS Name, and then click **Next**.

	New Windows Server	x
Name Specify DNS name or	IP address of Microsoft Windows server.	
Name Credentials Review Apply Summary	DNS name or IP address:          10.21.55.53         Description:         Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 8:00 AM.	
	< Previous Next > Finish Cancel	

Figure 5-6: New Windows Server

- 9. Select the Repository Credentials (which must be a local Administrator on the Repository) and then click **Next**.
- **10.** If you do not have the credentials and you wish to add the credentials, click **Add**.

Figure 5-7: New Windows Server - Credentials

	New Windows Server
Credentials Specify server crede	entials
Name	Select an account with local administrator privileges on the server you are adding. Use DOMAIN\USER format for domain accounts, or HOST\USER for local accounts.
Credentials	Credentials:
Review	R cloudbond365b\administrator (cloudbond365b\administrator, last edited: less v       Add         Manage accounts
Apply	
Summary	
	Click Ports to customize network ports to be used by individual components Ports
	< Previous Next > Finish Cancel

#### **11.** Enter the **Username** and **Password**, and then click **OK**.

Figure	5-8:	Credentials
--------	------	-------------

	Credentials	x
Username Password	cloudbond365b\administrator [To change the saved password, click here]	Browse
Descriptio	nd365b\administrator OK	Cancel

**12.** The Repository server is analyzed to see if you need to install the agent. You are informed which agents are going to be installed on the Repository.



**Note:** The required ports must be open between the VBR server and the Repository server.

13. Click Next.



	New Windows Server	X
Review Please review your se	ettings and click Apply to continue.	
Name	Due to these modifications the following components will be installed or removed on the target host:	t
Credentials	Component name Status	
Review	Transport already exists	
Apply		
Summary		
	After you click Apply missed components will be installed on the target host.	
	< Previous Apply Finish Can	cel

#### Figure 5-9: New Windows Server - Review

14. Please wait while the required operations are being performed. When the installation has completed, click **Next** 

#### Figure 5-10: New Windows Server - Apply

	New Windows Server	x
Apply Please wait wh	ile required operations are being performed. This may take a few minutes	
Name	Message	Duration
	Starting saving job	0:00:01
Credentials	Collecting hardware info	
Deview	Oetecting operating system	
Review	Detecting OS version	0:00:09
Apply	Registering client WIN-15FM3LKQ9P3 for package Transport	
	🛇 Discovering installed packages	
Summary	All required packages have been successfully installed	
	Creating database records for server	0:00:09
	Oetecting server configuration	
	Creating configuration database records for installed packages	
	Collecting disks and volumes info	0:00:13
	Microsoft Windows server saved successfully	
	< Previous Next >	Finish Cancel

#### 15. Click Finish.



	New Windows Server	x
You can copy the cor	nfiguration information below for future reference.	
Name Credentials Review Apply Summary	Summary: Microsoft Windows Server '10.21.55.53' was successfully created. OS version: Microsoft Windows Server 2008 R2 Standard 64-bit (6.1.7601 build:7601). User: cloudbond365b\administrator Hardware info: Chass\s type: Physical Cores count: 2 Components: Installer using port 6160 Transport using port 6162	
	< Previous Next > Finish Cance	el

16. Click Populate to select the volume for the repository, and then click Next.Figure 5-12: New Backup Repository - Server

		New Backup Reposite	ory	X
Server Choose repository	server. You can select	server from the list of manag	ed servers added to the con	sole.
Name	Repository server	:		
Server	10.21.55.53 (Crea	ated by WIN-15FM3LKQ9P3\A	Administrator at 4/26/2018 8:	00 AM.) 🗸 Add New
Repository	Path	•	Capacity	Free Populate
Mount Server				
Review				
Apply				
		< Pr	evious Next >	Finish Cancel



17. In the 'Path to folder' field, select the path to be used as the root for the repository.

Figure 5-13: New Backup	Repository – Server	C:\ Path
-------------------------	---------------------	----------

	New Backup Repo	sitory	X
Server Choose repository se	rver. You can select server from the list of ma	naged servers added to the co	insole.
Name	Repository server:		
Server	10.21.55.53 (Created by WIN-15FM3LKQ9P	3\Administrator at 4/26/2018	8:00 AM.) V Add New
Serrer	Path	Capacity	Free Populate
Repository	• C:\	97.7 GB	62.7 MB
Mount Server			
Review			
Apply			
		Previous Next >	Finish Cancel

- **18.** Click **Populate** to see available free space.
- **19.** You can limit the number of concurrent tasks to the Repository, depending on the hardware resources, or limit the data rate, if needed. If you are running the repository on the CloudBond 365, you need to limit concurrent tasks to 1.

20. Click Next.

Figuro 5-14		Ronositor	- Renository
rigule 5-14.	. New Dackup	Repositor	y - Repusitory

	New Backup Repository	X
Repository Type in path to the f	older where backup files should be stored, and set repository load control options.	
Name	Location	
Server	Path to folder: C:\Backup\VBR9.5	owse
Repository	Capacity: Po	pulate
Mount Server	Load control	
Review	Running too many concurrent tasks against the same repository may reduce overall perforn and cause I/O operations to timeout. Control storage device saturation with the following s	mance, settings:
Apply	Limit maximum concurrent tasks to: Limit read and write data rates to: MB/s Click Advanced to customize repository settings	anced
	Click Auvaliced to customize repository settings Auv	anceum
	< Previous Next > Finish C	ancel

- 21. Clear the 'Enable vPower NFS server' check box to disable vPower NFS.
- 22. Click Next.

Figure 5-15: New Backup Repository - vPowerNFS

New Backup Repository				
Mount Server Specify a server to r backup files, enablin	nount backups to for file-level restores. vPower NFS service allows for running virtual machines directly from ng advanced functionality such as Instant VM Recovery, SureBackup and On-Demand Sandbox.			
Name Server	Mount server: 10.21.55.53 (Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 8:00 AM.) V Add New			
Repository	Enable vPower NFS service on the mount server (recommended)     Specify vPower NFS write cache location on the mount server. Make sure the selected volume has     server free dick server variable to the server shared dick blacks of instantly servered VMs			
Review	Folder:       C:\ProgramData\Veeam\Backup\NfsDatastore       Browse			
Арріу	Click Ports to change NFS server and backup mount listener ports Ports			
	< Previous Next > Finish Cancel			

#### 23. Click Apply.

	Ν	ew Backup Repository		x
Review Please review the s	ettings, and click Apply to	continue.		
Name Server Repository Mount Server	Repository type: Mount host: Account: Backup folder: Write throughput: Max parallel tasks:	Windows 10.21.55.53 cloudbond365b\administrator C:\Backup\VBR9.5 Unlimited 4		
Apply	The following compo Component name Transport Mount Server	nents will be processed on server 10.21.55.53:	Status already exists already exists	
	Import existing ba	<b>ckups automatically</b> le system index		
		< Previous Apply	Finish Cance	I

#### Figure 5-16: New Backup Repository - Review

24. Click Finish.

#### Figure 5-17: New Backup Repository - Apply

	New Backup Repository		x
Apply Please wait while bac	kup repository is created and saved in configuration. This may take a few mi	nutes	
Name	Message	Duration	
	Starting saving job		
Server	S Discovering installed packages		
Reporton	Registering client WIN-15FM3LKQ9P3 for package Transport		
Repository	Segistering client WIN-15FM3LKQ9P3 for package Mount Server		
Mount Server	O Discovering installed packages		
	All required packages have been successfully installed		
Review	Oteecting server configuration		
	Creating configuration database records for installed packages		
Арріу	Creating database records for repository		
	Backup repository has been added successfully		
	< Previous Next >	<b>Finish</b> Car	ncel

25. Set the new Repository as the default for configuration backup, and then click Yes.

Figure 5-18: VBR – Change Backup Location



- **26.** If the VBR is installed on the CloudBond 365, disable the configuration backup by doing the following:
  - **a.** From the VBR main console screen, click the Menu icon (in the top-left corner of the screen).
  - b. Select the Configuration Backup menu.

Figure 5-19: Configuration Backup

	≣-		
	$\mathbf{\Lambda}$	Upgrade	
	R	Manage Credentials	
	R	Manage Cloud Credentials	
	ß	Manage Passwords	
		General Options	
	2.	Users and Roles	
	8	Network Traffic Rules	
(		Configuration Backup	>
		Console •	
		Color Theme	
	<b>_</b>	License	
		Help 🕨	
	×	Exit	

**c.** Clear the 'Enable configuration backup to the following repository' check-box.

Figure 5-20:	Configuration	Backup	Settings
--------------	---------------	--------	----------

Configuration Backup Settings	×
Backup	
Enable configuration backup to the following repository:	
Backup Repository 1 (Created by WIN-15FM3LKQ9P3\Administra	ator at 4/26/20 🗸
62.6 MB free of 97.6 GB	
Restore points to keep: 10 文	Notifications
Perform backup on: Daily at 10:00 AM	Schedule
Last successful backup: 4/25/2018 10:00 AM	Backup now
Enable backup file encryption	
Password:	
v	Add
Manage passwords	
Saved credentials and backup server certificate will not be included in the configuration backup until encryption is enab Pertore	led
Restore the configuration backup to this server:	Restore
OK Cancel	Apply

27. Delete the old Default repository by right-clicking it as shown in the screen below.28. Select Remove.

Figure 5-21: Removing Old Repository



## 5.2 Configure Backup Repository Permissions

The following procedure describes how to configure Backup Repository permissions.

#### > To configure Backup Repository permissions.

- 1. Open the VBR main console screen.
- 2. Press **Ctrl** and right-click on the External Repository that was previously added.
- 3. Select Permissions.

#### Figure 5-22: Backup Infrastructure

E → HOME BACKUP REPO	SITORY			
Add Edit Remove Repository Repository Manage Repository	Set Access Set Permissions Location * Manage Settings	Rescan Upgrade		
BACKUP INFRASTRUCTURE	Q Type in an object	name to search for	×	
Backup Proxies	NAME 🕇	TYPE	HOST	PATH
<ul> <li>Backup Repositories</li> <li>External Repositories</li> <li>WAN Accelerators</li> <li>Service Providers</li> <li>Managed Servers</li> <li>Microsoft Windows</li> </ul>	Backu Rescan Vpgrac Remov Remov Control Proper	permissions	10.21.55.53	C:\Ba

By default, the Repository is blocked for everyone. However, you can change the permissions to allow access to everyone as shown in the example below. Alternatively, you can define which users or groups can have access. For more information, refer to the *Veeam Endpoint Backup User Guide*.



Access Permissions	X
Repository access: O Deny to everyone	
<ul> <li>Allow to everyone</li> </ul>	
<ul> <li>Allow to the following accounts or groups only:</li> </ul>	
Account or group	Add
	Remove
Encrypt backups stored in this repository	
Password:	
×	Add
Manage passwords	
ОК	Cancel

#### Figure 5-23: Endpoint Backup Permissions

- 4. Select the 'Encrypt backup stored in this repository' check-box to define that all the data on the repository should be encrypted. If you want to do this, you need to define a password for the encryption. For more information, refer to the *Veeam Endpoint Backup User Guide Version*.
- 5. Click OK.

# 6 Adding CloudBond 365 Hyper-V to VBR

The following procedure describes how to add CloudBond 365 Hyper-V to VBR.

- To add CloudBond 365 Hyper-V to VBR:
- 1. Add the **INVENTORY** option to the left pane through the drop down menu at the bottom left screen:



- 2. From the INVENTORY main console screen, select Virtual Infrastructure.
- 3. Select Add Server.
- 4. Select Microsoft Hyper-V.

#### Figure 6-1: Add Server

#### Add Server

Select the type of a server you want to add to your backup infrastructure. All already registered servers can be found under the Managed Servers node on the Backup Infrastructure tab.



VMware vSphere

Adds VMware private cloud infrastructure servers to the inventory.



Microsoft Hyper-V

Adds SCVMM server, Hyper V cluster, or standalone host (2008 R2 or later) to the inventory.



#### Protection Group

Adds a group of physical or cloud servers or workstations to the inventory.

- 5. In the 'DNS name or IP address' field, enter the CloudBond 365 Host IP address.
- 6. In the 'Description' field add a description of the new Hyper-V server.

 $\times$ 



	New Hyper-V Server	X
Name Specify DNS name or	IP address of Microsoft Hyper-V server.	
Name Type Credentials Apply Results Summary	DNS name or IP address: [10.21.55.60] Description: Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 8:32 AM.	
	< Previous Next > Finish Cancel	

#### Figure 6-2: New Hyper-V Server

7. Click Next.

# Click the Microsoft Hyper-V Server (standalone) option, and then click Next. Figure 6-3: New Hyper-V Server - Type

	New Hyper-V Server
Type Select the type of ser	rver you want to add.
Name Type Credentials Apply Results Summary	<ul> <li>Microsoft System Center Virtual Machine Manager (SCVMM) If you are using SCVMM to manage your Hyper-V infrastructure, we can pull all Hyper-V hosts and clusters information from SCVMM, and add them to managed servers automatically.</li> <li>Microsoft Hyper-V cluster Use this option to register Hyper-V cluster that is not managed by SCVMM. Registering Hyper-V cluster instead of individual cluster nodes provides for Live Migration awareness.</li> <li>Microsoft Hyper-V server (standalone)</li> </ul>
	Use this option to register standalone Hyper-V server that is not a part of a cluster, and not managed by SCVMM.
	< Previous Next > Finish Cancel

9. You must have local Administrator credentials on the server.



**10.** From the 'Credentials' drop-down list, select an existing or add credentials to access the Hyper-V host.

	New Hyper-V Server
Credentials Select server adminis	strator credentials.
Name Type	Select an account with local administrator privileges on the server you are adding. Use DOMAIN\USER format for domain accounts, or HOST\USER for local accounts. Credentials:
Credentials	Manage accounts
Apply	
Results	
Summary	Click Ports to customize network ports to be used by individual components Ports
	< Previous Next > Finish Cancel

#### Figure 6-4: New Hyper-V Server - Credentials



#### Notes:

- If CloudBond 365 is backed up, the host can be a Domain Controller. If so, use a User which belongs to the Domain Administrators (e.g., CloudBond 365/Administrator).
- If the HyperV host is not a Domain Controller, use the following format for the user name: <computer Name>\<user>
- **11.** On the Credentials screen, click **OK**, and then click **Next**. The VBR examines the Target server, which can take several minutes.

#### **12.** In the 'task limit' field, select **1**, and then click **Next**.

Figure 6-5: New Hyper-V Server - Apply

New Hyper-V Server			
Apply Please review your settings and click Apply to continue.			
Name	Due to these modifications the following components will be inst	alled or removed on the target host:	
Turne	Component name	Status	
Type	Transport	already exists	
Credentials	Hyper-V Integration	already exists	
Apply			
Results			
Summary			
	This Hyper-V server will act as the backup proxy for jobs running in Task limit:	in the on-host backup mode. target host.	
	< Previous Apply	y Finish Cancel	

**13.** The missing components are installed on the CloudBond 365. This takes several minutes.



14. On the Results screen, click Next.

Figure	6-6:	New	Hyper-V	Server	- Results
--------	------	-----	---------	--------	-----------

	New Hyper-V Server		x
Results The following servers	have been processed.		
Name	Message	Duration	
	Starting saving job	0:00:29	-
Туре	O Detecting operating system		-
Cradentials	Collecting hardware info		-
Credentials	Registering client WIN-15FM3LKQ9P3 for package Transport		
Apply	Registering client WIN-15FM3LKQ9P3 for package Hyper-V Integration		
	O Discovering installed packages		
Results	All required packages have been successfully installed		
	Otecting OS version	0:00:14	
Summary	Creating configuration database records.	0:00:09	
	Collecting disks and volumes info	0:00:45	
	Server has been saved successfully		
			_
	< Previous Next >	Finish Cancel	

- **15.** On the Summary screen, click **Finish**.
- 16. In case that the virtual servers does not appear on the screen, click to **Rescan**.

Figure 6-7: Rescan



Ca BACKUP INFRASTRUCTURE

**17.** The VBR informs you which Windows updates are missing and need to be installed.

**18.** The Microsoft Hyper-V server with its Virtual Machines appears on the screen.

IN	VENTORY	Q Type in an object name to search for	×			
4	😭 Virtual Infrastructure	NAME 🕇	USED SIZE	PROVISION	HOST	GUEST
	Microsoft Hyper-V	🕞 Edge	50.0 GB	50.0 GB	10.21.55.60	Micros
	4 📃 Standalone Hosts	FaxAA-5566-2016	25.1 GB	28.0 GB	10.21.55.60	
	10.21.55.60	FaxIVR_VHD_2512	0.0 B	0.0 B	10.21.55.60	
4	音 Physical & Cloud Infrastructı	Front-End	80.0 GB	80.0 GB	10.21.55.60	Micros
	🚮 Manually Added	ProC-5564-2016	21.8 GB	30.0 GB	10.21.55.60	
	🔂 Unmanaged	W2012R2-VoiceMail	43.8 GB	85.0 GB	10.21.55.60	
⊿	🗟 Last 24 Hours					
	🔯 Success					
1	HOME					

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# 7 Configuring Backup Jobs

The following procedures describe how to configure backup jobs.

## 7.1 Configuring Veeam Agent Host Backup

The following procedure describes how to configure the backup for the host server.

- To configure the backup for the host server:
- 1. From the Notifications Area icons, double-click on the Veeam Agent.

Figure 7-1: Notifications Area Icons



2. Click Add New Job.







3. In the 'Name' field, enter a name.

Figure 7-3: New Backup Job

Ø	New Backup Job	X
Name Type in a name an	d description for this backup job.	
Name Backup Mode Destination Local Storage Schedule Summary	Name: Tot: Description: Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 8:48 AM.	
	< Previous Next > Finish Cancel	

4. Click the File level backup (slower) mode option, and then click Next.

Figure 7-4: Configure Backup



- 5. Select the 'Operating system' check box (automatically checks Volume C and personal files),
- 6. Select 'Volume D'.
- 7. The Backup Agent tool recognizes the Hyper-V folder and doesn't display its subfolders.
- 8. Click Next.



<b>Ø</b>	New Backup Job		
Files Choose individual volume, then unch	files and folders to back up. For best performance when backing up thousands of fil neck all unnecessary items.	es, select the entire	
Name Backup Mode Files Destination Local Storage Schedule Summary	Objects to backup:       To         Image: Operating system       Image: Operating system         Imag	otal size: 29.6 GB 💽	
	To specify file inclusion and exclusion settings, click Advanced	Advanced	
	< Previous Next > Finis	ih Cancel	



**Note:** Volume E: is used only when installing the CloudBond 365. All its information exists on the CloudBond 365 USB. If you want to back it up, select the Volume E check box as well.

9. Select the Veeam Backup & Replication repository option as the Destination (alternatively, select 'Local Storage' if you wish to keep the backup on external HDD), and then click Next.

<b>*</b>	New Backup Job		
	<b>Destination</b> Choose where you computer that you	want to backup your data to. We highly recommend that you do not store your backups on the same are protecting.	
Name Backup Mode Files Destination		<ul> <li>Local storage         Choose this option to back up to a locally attached storage device such as USB, Firewire or eSATA         external hard drive. Backing up to internal hard drives is not recommended.</li> <li>Shared folder         Choose this option to back up to an SMB (CIFS) share on a Network Attached Storage (NAS) device,         or on a regular file server.</li> </ul>	
Backup Server       Image: Weeam backup repository         Backup Repository       Choose this option to back up to a backup repository managed by Veeam Backup & Replication Update 4 or later server.         Schedule       Summary			
		< Previous Next > Finish Cancel	

#### Figure 7-6: Configure Backup - Destination

- **10.** On the Backup Server screen, enter the VBR IP address that runs on the CloudBond 365 host or on the external one (if you selected to run it on an external server).
- **11.** Enter the Veeam Agent credentials that you defined in Section 4.2.1, and then click **Next**.

<b>Ö</b>	New Backup Job	x
Backup Server Specify a Veeam Ba	ackup & Replication server to query for backup repositories available to you.	
Name Backup Mode Files	Veeam backup server name or IP address:          10.21.55.53         Specify your personal credentials:	Port: 10001 🗘
Destination	Username: cloudbond365b\administrator	
Backup Server	Password:	Ŷ
Backup Repository		
Schedule		
Summary		
	< Previous Next > Finish	Cancel

#### Figure 7-7: Configure Backup – Backup Server

- **12.** Select the Backup Repository from the drop-down list.
- **13.** In the 'backups to retain' field, select how many backups should be retained, and then click **Next.**

Ø	New Backup Job
Backup Reposito Choose backup re contact your Veea	<b>ry</b> pository to backup to. You can only select between backup repositories you were granted access to. Please m Backup & Replication administrator for in case of disk space and backup repository availability issues.
Name	Backup repository:
Backup Mode	Default Backup Repository (Created by Veeam Backup)
Files	62.4 MB free of 97.7 GB
Destination	
Backup Server	
Backup Repository	
Backup Cache	
Guest Processing	
Schedule	
Summary	Restore points to keep on disk: 14 💭 Click Advanced to enable periodic full backups, configure encryption and other backup file settings Advanced
	< Previous Next > Finish Cancel

#### Figure 7-8: Configure Backup – Backup Repository

14. Click Next.

#### Figure 7-9: Backup Cache

<b>Ø</b>	New Backup Job		
Backup Cache Local backup cache allows backups to continue on schedule even if remote backup target is temporarily unavailable.			
Name Backup Mode Files Destination Backup Server Backup Repository Backup Cache Guest Processing Schedule Summary	□       Enable backup cache         Backups remain in the cache until a connection to the backup target can be established. Once that happens, cached backups are automatically uploaded to the backup target and then deleted from the cache.         Location:		
	< Previous Next > Finish Cancel		

15. Click Next.



#### Figure 7-10: Guest Processing

<b>0</b>	New Backup Job		
Guest Processing Choose guest OS p	processing options.		
Name Backup Mode Files	Enable application-aware processing     Detects and prepares applications for consistent backup, performs transaction logs processing, and     configures the OS to perform required application restore steps upon first boot.     Customize application handling options for individual applications     Applications		
Destination Backup Server	Enable file system indexing     Creates catalog of files to enable browsing, searching and 1-click restores of individual files.		
Backup Repository Backup Cache Guest Processing	Indexing is optional, and is not required to perform instant file level recoveries. Customize advanced file system indexing options Indexing		
Schedule Summary			
	< Previous Next > Finish Cancel		

- **16.** Set the time to perform the backup. (The preferred time is at night when the system is less loaded.)
- 17. Click Next.

#### Figure 7-11: Configure Backup – Schedule

<b>Ø</b>	New Backup Job	x
Schedule Choose when you	want backup job to be started automatically.	
Name	✓ Run the job automatically	
Backup Mode	Daily at this time:     12:30 AM     V     Everyday	ays
Files	O Monthly at this time: 10:00 PM 💌 Fourth v Saturday v Mo	onths
Destination	O Periodically every: 1 V Hours V Sch	edule
Backup Server	Automaticantes	
Backup Repository	✓ Retry failed job 3 ↔ times	
Backup Cache	Wait before each retry attempt for: 10 👗 minutes	
Guest Processing		
Schedule	Backup window	
Summary	Terminate job if it exceeds allowed backup window     If the job does not complete within allocated backup window, it will be     terminated to prevent snapshot commit during production hours.	ndow
	< Previous Apply Finish Co	ancel

**18.** Approve to change your Power plan, in case it is scheduled to Sleep at midnight.

Veeam Agent for Microsoft Windows
Can we change your power plan settings to allow daily backup to wake up this computer from sleep?

- **19.** You can check the 'Run the job when I click Finish' check box, to perform a full backup now. This is recommended so you can check that the backup is correctly set.
- 20. Click Finish.

<b>Ø</b>	New Backup Job	×
Summary You have successfully created the new backup job.		
Name Backup Mode Files Destination Backup Server Backup Repository Backup Cache Guest Processing	Summary: Backup job was created successfully. General Backup job name: Job Backup job description: Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 8:48 AM. Source Backup mode: file level backup Included items: Windows (C:) Data (D:)	III
Schedule Summary	Destination Veeam Agent for Microsoft Windows repository Backup server: 10.21.55.53 Backup repository: Default Backup Repository Keep restore points for the last 14 cycles Compression levels Ontimal (recommended) Run the job when I click Finish	~
	< Previous Next > Finish Can	cel

- **21.** If you selected to perform a backup now, you can monitor the backup from:
  - Veeam Agent Control Panel: Navigate to Start > Control Panel.

Figure 7-13: Monitoring Backup with Veeam Agent Control Panel






😑 🗹 Veeam Agent 🛛 HDD	×
1 Recovery media has not been created	Details
Last backup: 34 minutes ago Backup Now	
17.0 GB	
14.2 GB	
11.3 GB	
8.54 GB	
5.69 GB	
2.84 GB	
0 B 33 minutes ago	

Figure 7-15: Last Backup

• VBR Jobs: Click Running to view display.

### Figure 7-16: Monitoring Backup with VBR Jobs

Veeam Backup & Replication							- 0	x				
Home	View											۲
اگ الخ	1				Î							
Backup Replication Job Job	Backup VM Copy - Copy	File Copy	Restore	Import Backup	Failover Plan							
Primary Jobs	Auxiliary J	obs	Rest	tore	Failover Plans							
Backup & Repl	ication	D Tj	/pe in an	object n	ame to search ;	for						×
⊿ 🕮 Jobs		Job N	ame			Session Type	Status	St	tart time 🔭			
Endpoint	Backup	🔒 Ba	ckup Job V	VIN-NR 11	EU2FL 1R	Endpoint Backup	Running	12	2/2/2015 4:34 PM			
⊿ 🎦 Backups												
🛓 Disk												
⊿ Lõg Last 24 hours	s n (1)											
Success	9(1)											
🔒 Backup & Re	plication	]										
🗊 Backup Infra	structure											
Virtual Mach	ines											
🝋 Tape Infrast	ructure											
Files												
History												
	×											
1 session							Enterprise Plus Editio	on	Evaluation: 1 day	remaining	VEE	am .

# 7.2 Configuring VBR VMs Backup

The following procedure describes how to configure the VBR backup for the VMs.

- > To set the backup for the Virtual Machines on the CloudBond 365 server:
- 1. Run Veeam Backup and Replication (VBR).
- 2. Create a backup job from the **Home** menu or by right-clicking the **Backup Job** window.

Figure 7-17: VBR Jobs - Backup

≣≁	HOME	SERVER							
Back	Replication Job +	Backup Copy •	Copy Job *	Failover Plan ▼	Import Backup				
	Virtual machir	ne	obs	Restore	Actions				
V.	Windows com	nputer		Q Туре	in an obje	ect nam	e to search	for	
5	Linux comput	er							
	Backup Pro	xies	_	NAME 🕇			TYPE		
	Backup Rep	ositories		10.21.	55.60		Microsoft	Hyper-V Ser	ver
7	🛓 External Rep	positories							
6	> WAN Accel	erators							
2	Service Prov	/iders							

3. Enter the name and description and then click **Next**.

Figure 7-18: New Backup Job

	New Backup Job	x
Name Type in a name and o	description for this backup job.	
Name Virtual Machines Storage Guest Processing Schedule Summary	Name: Backup Job 1 Description: Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 9:17 AM.	
	< Previous Next > Finish Cancel	

- 4. Select Add to add VMs to the job.
- 5. Select all the VMs **except the SBC**. The VMs list is according to the CloudBond 365 model and setup that was selected. The number of VMs that are allowed to be backed up is calculated according to your license.



**Note:** To back up the SBC, it is recommended to manually back up the SBC Settings INI file. For more information, refer to the Saving Configuration sub-section of the *AudioCodes SBC User's Manual*.

6. Click Add.

	Add Object	s X	
Virtual Machin Select virtual m as you add new	Select objects:	D 📴 🛱 📬	that automatically changes
Name	⊿ <u>10.21.55.60</u>		
Virtual Machines	FaxAA-5566-2016		Add
Storage	FaxIVR_VHD_2512		Kemove
Guest Processing	ProC-5564-2016		Exclusions
Schedule	W2012K2-VOICEIVIAII		
Summary			<ul> <li>Top</li> <li>Town</li> </ul>
			Recalculate
	<b>★</b> • Type in an object name to search for	Q	Total size: 220 GB
		Add Cancel	Finish Cancel

Figure 7-19: Add Objects

7. Click Next.

Y



	INEW B	аскир Јор		
Virtual Machines Select virtual mach as you add new VM	ines to process via container, or grar 1 into container.	ularly. Container provid	es dynamic selection tha	t automatically changes
Name	Virtual machines to backup:			
	Name	Туре	Size	Add
Virtual Machines	Edge	VM	50.0 GB	Deverse
0	FaxAA-5566-2016	VM	25.0 GB	Kemove
Storage	FaxIVR_VHD_2512	VM		
Guest Processing	Front-End	VM		Exclusions
	ProC-5564-2016	VM		
Schedule				
				🕈 Up
Summary				<b>↓</b> Down
				Recalculate
				Total size:
				Calculating
		< Previous	Next > Fini	sh Cancel

Figure 7-20: New Backup Job – Virtual Machines

- 8. Confirm that the correct repository has been selected and that the number of restore points to keep is correct.
- 9. Click Next.

### Figure 7-21: New Backup Job – Storage

	New Backup Job							
Storage Specify processing p job and customize a	roxy server to be used for source data retrieval, backup repository to store the backup files produced by this dvanced job settings if required.							
Name Virtual Machines	Backup proxy:           Off-host backup (automatic proxy selection)         Choose           Backup repository:							
Storage	Backup Repository 1 (Created by WIN-15FM3LKQ9P3\Administrator at 4/26/2018 7 🗸							
Guest Processing	62.3 MB free of 97.6 GB Map backup							
Schedule	Restore points to keep on disk: 14 🔹 🕦							
Summary	Configure secondary destinations for this job Use the backups produced by this job to satisfy backup requirement by archiving backups to tape, or efficiently creating remote backups and replicas over WAN.							
	Advanced job settings include backup mode, compression and deduplication, block size, notification settings, automated post-job activity and other settings.							
	< Previous Next > Finish Cancel							

10. Click Next.

	New Backup Job	X
Guest Processing Choose guest OS pro	ocessing options available for running VMs.	
Name	Enable application-aware processing	
Virtual Machines	Detects and prepares applications for consistent backup, performs transaction logs processing, configures the OS to perform required application restore steps upon first boot.	and
Storage	Customize application handling options for individual items and applications Applicatio	ns
Guest Drocessing	Enable guest file system indexing	
ouest Processing	Creates catalog of guest files to enable browsing, searching and 1-click restores of individual fil Indexing is optional, and is not required to perform instant file level recoveries.	es.
Schedule	Customize advanced guest file system indexing options for individual items	
Summary	Guest OS credentials	
	Add	
	Manage accounts	
	Customize guest OS credentials for individual items and operating systems Credentia	ls
	Test No	w
	< Previous Next > Finish Cance	el

Figure 7-22: New Backup Job – Guest Processing

**11.** Select the 'Backup window' check box to terminate the job if it exceeds the allowed backup window.



**Note:** If the job does not complete within the allocated backup window, it is terminated to prevent a snapshot commit during production hours.

**12.** Define the schedule for the job and click **Create**.



**Note:** It is recommended to schedule this backup job at least 60 minutes later than the Veeam Agent backup scheduled time.

Figure 7-23: New Backup Job – Schedule

	New Backup Job	X
Schedule Specify the job sched	duling options. If you do not set the schedule, the job will need to be controlled manually.	
Name Virtual Machines Storage	<ul> <li>Run the job automatically</li> <li>Daily at this time:</li> <li>Monthly at this time:</li> <li>Periodically every:</li> </ul>	Days Months Schedule
Guest Processing	O After this job:	¥
Schedule Summary	Automatic retry  ✓ Retry failed items processing: 3 ★ times Wait before each retry attempt for: 10 ★ minutes Backup window ☐ Terminate job if it exceeds allowed backup window If the job does not complete within allocated backup window, it will be terminated to prevent snapshot commit during production hours.	Window
	< Previous Apply Finish	Cancel

- 13. Click Finish.
- **14.** It is recommended to select the 'Run the job when I click Finish' check box, so that you can run the job immediately to test the backup.

	New Backup Job	x
Summary The job's settings ha	ve been saved successfully. Click Finish to exit the wizard. Summary: Name: Backup Job 1	_
Virtual Machines Storage Guest Processing Schedule Summary	Target Path: C:\Backup\VBR9.5         Type: Hyper-V Backup         Source items:         Edge (10.21.55.60)         FaxAA-5566-2016 (10.21.55.60)         FaxIVR_VHD_2512 (10.21.55.60)         Front-End (10.21.55.60)         ProC-5564-2016 (10.21.55.60)         Target repository: Backup Repository 1         Target repository host: 10.21.55.3         Target repository the provide state of	
	Command line to start the job on backup server: "C:\Program Files\Veeam\Backup and Replication\Backup\Veeam.Backup.Manager.exe" backup 09eec74d-7242-496f-9c2d-8f85e1cbe5c7	
	< Previous Next > Finish Cance	:1

### Figure 7-24: New Backup Job – Summary

**15.** You can monitor the job using the VBR.

Figure 7-25: VBR - Monitoring

E + HOME VIEW SES	SION						
Stop Statistics Report							
HOME	Q Type in an object nam	ne to search for		×			
⊿ 🖏 Jobs	JOB NAME	SESSION T	YPE STATUS	START T	IME 🕇		
建 Backup	🕞 Backup Job 1	Backup	0% comple	ted 4/26/20	18 9:22 AM		
Running (1)							
	Job progress:			0%			0 of 0
🚖 НОМЕ							
	SUMMARY		DATA		STATUS		THROUGHPUT
CA BACKUP INFRASTRUCTURE	Duration:	01:01	Processed:	0.0 B (0%)	Success:	0	
	Processing rate:	0 KB/s	Read:	0.0 B	Warnings:	0	
	Bottleneck:	Detecting	Transferred:	0.0 B	Errors:	0	
FILES							
	NAME	STATUS	ACTION Job started at 4/2	26/2018 9:22:39 AN	1		DURATI

# 7.3 Monitoring Backup

You can monitor the backup process using either:

- Email
- SNMP

The setup is done using the VBR: Refer to *Veeam Backup & Replication User Guide*. You can receive notification on the status of backup jobs and on system parameters.

# 7.4 Using the 3-2-1 Backup Rule

In making back up files, use the 3-2-1 rule:

- Have at least three copies of your data.
- Store the copies on two different media.

### Keep one backup copy offsite.

The above procedure provides the ability to create one local backup. Creating another two copies and one offsite is not described in this document. The VBR tool can be used for creating extra jobs to copy the backup to another place and to store the backup offsite using the Veeam cloud. For more information, contact AudioCodes.

## 7.5 Backing up the SBC

The SBC (software and hardware SBC) can be backed up by saving its *ini* files. For more information on how to save the *ini* files, refer to the *SBC User Manual*.

For Pro Box and Enterprise Box editions, where software SBC is used, you must restore the SBC VM first and then configure it with the *ini* files. We recommend you export the SBC VM after setting it to the C: drive, so that the Veeam Agent will back it up.

# 8 Keeping Information after Defining the Backup

A restore can be done years after you defined the backup. It is recommended to enter the following information per CloudBond 365, so it will be available if needed for recovery.

- Location of the recovered USB: It is recommended to update the USB using your server as explained in Appendix on page 113 to keep your system drivers.
- Architecture used: Note what architecture is used for VBR on the CloudBond 365 or on an external server. Either the repository is external or on the CloudBond (attached USB Disk)
- **Password used:** Note the password used if you encrypt the backup.
- CloudBond 365 topology: (with Domain Controller or without).
- D: and E: drive/files: If you backed up D: and E: drives, you will need to restore them.
- **IP address:** Note the IP address of the Repository server.
- Network Settings: Note the network settings, IP address and which virtual network is associated with a physical network card.
- Username and Password of the Repository server:
- Username and Password of the Veeam Agent: (for every CloudBond 365 it is a different user)
- The full network path of the Veeam Agent backup
- Network setup for all Network interfaces Host and VM
- Hyper-V Virtual Network switch configuration

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# 9 Restoring a CloudBond 365 Backup

The Restore procedure is for a full system restore and not one virtual machine, even though that the Backup system supports it. When restoring to different hardware, a new license may be required (CB365 version 7.2 will not need a new license, older version will require new license). The basic system functionality works without the new license. If you change your hardware and you use old version, you need a new license for CloudBond 365 SysAdmin, because the license is based on the device's hardware IDs.



Note: Please contact AudioCodes to obtain this license.

Before you begin the restore process, check that the date and time on the CloudBond 365 server BIOS are correct.



**Note:** The Restore procedure is divided into several Restore tasks. It is recommended that when restoring, the same Restore date for all tasks is used.

# 9.1 Booting the CloudBond 365

The following procedures describe two different ways of how to boot the CloudBond 365:

- From Veeam Recovery Media USB
- Remotely from .iso using HP iLO

### 9.1.1 Booting CloudBond 365 from Veeam Recovery Media USB

The following procedure below describes how to boot the CloudBond 365 from a Veeam Recovery Media USB.

- > To boot the CloudBond 365 from a Veeam Recovery Media USB:
- 1. Plug the Veeam Recovery Media USB into the CloudBond 365.

### Notes:

- The Veeam Recovery Media USB comes with the CloudBond 365. If you don't have the Veeam Recovery Media USB, see Appendix A on page 139 for instructions on how to create it.
- If the Veeam software was updated on your server, it is recommended to update the USB. See Appendix A on page 139 for more information.
- The Veeam Recovery Media USB is a different USB than the CloudBond 365 Recovery USB. The CloudBond Recovery USB is used for a clean system re-install using the CloudBond 365 Installation wizard.

- 2. Start the server and boot from the USB:
  - On CloudBond Standard and Standard+ Editions: From the BIOS, select Save and Exit Menu and select to boot from USB.
  - **On CloudBond 365 Pro Box and Enterprise Box Editions:** While booting, click F11. Select Option 3 to boot once from the USB

### 9.1.2 Booting CloudBond 365 Remotely from *.iso* using HP iLO

The recovery can be performed remotely using HP Integrity Integrated Lights-Out (iLO) management for CloudBond 365 Pro Ent (HP server). You need to boot the CloudBond 365 from an *iso* file, instead of a USB.

The *.iso* file can be downloaded from:

https://s3.eu-central-1.amazonaws.com/downloadsaudiocodes/CB365Backup/Version+9.5/VeeamRecoveryMedia.iso

Another option is to put the USB with the *.iso* file and set the iLO to boot from the *.iso* on the USB. This *.iso* file can be prepared the same way as preparing the USB in Appendix A, but you need to select the *.iso* boot type.

# 9.2 Restoring Volume C: Using Veeam Agent

The procedure below describes how to restore Volume C using the Veeam Agent.

- > To restore Volume C: using Veeam Agent:
- 1. Boot the system using either a USB or .iso file.
- 2. From the main menu, select **Tools**, and then select the **Load Driver** menu option.

### Figure 9-1: Hardware Drivers

C:\	Command Prompt Opens Microsoft Windows command prompt.	<b>.</b>	Memory Dia Runs Microsoft Windo diagnostic tool.
จ	Reset Password Resets Local Administrator account's password.	< <b>0</b> >	Startup Repa Fixes problems that are Microsoft Windows from
훞	Load Driver Select and load driver for storage controller, network adapter or other handware.	1	Export Logs Saves recovery applianc files to a removable store

3. Clear the 'Inject these drivers...' check box, and click **OK**.

Figure	9-2:	Storage	and	Network	Adapters
i igui o	~	otorago	ana		/

Hardware Drive	ers	
All storage and network adapters for which drivers are available ar drivers for some adapters, click Load Driver below to supply the dr	e shown below. If your recovery media river manually.	does not include
Storage and network adapters:		
Name	State	
Disk drives		
SAMSUNG MZ7LN512HCHP-00000	Online	
UFD 3.0 Silicon-Power32G USB Device	Online	
Standard SATA AHCI Controller	Online	
Microsoft Storage Spaces Controller	Online	
Network adapters		
Intel(R) 82574L Gigabit Network Connection #2	Online	
The Intel(R) Ethernet Connection I217-LM	Online	
Intel(K) 825/4L Gigabit Network Connection	Online	
Microsoft Kernel Debug Network Adapter	Online	
	N	
Inject these drivers into operating system while performing has	hà:	
and operating system while performing bar	e metal recovery	
Load Driver		OK
Property in the second s		

- 4. Return to the main screen.
- 5. On the Veeam Endpoint Recovery screen, select the **Bare Metal Recovery** option.



Figure 9-3: Veeam Endpoint Recovery – Bare Metal Option

6. Click the **Local storage** option to restore from a backup copy which was kept on an external HDD, and then click **Browse** to point to the backup file.

Figure 9-4: Backup Location



7. Point to the relevant restore point with the date you wish to restore from (it will use the full backup file and the delta from the specific date).

Figure 9-5: Backup Location

a state of the sta	Volume Level Restore		
Restore Poir Select a desir	at ed restore point.		
Backup Location Restore Point Restore Mode	Computer name: WIN-15FM3LKQ9P3 Disks included: Disk 0 Operating system: Windows Server 2012 R2 Standard Available restore points:	Volum	es included: C
	Created	Туре	
Progress	Thursday 3/14/2019)	Full	
574	< Previous Next	t> Fanish	Cancel

8. Select the Manual restore option.

Figure 9-6: Manual Restore

	Volume Level Restore
Restore Mon Specify a rest	de .ore mode.
Backup Location Restore Point Restore Mode	Entire computer     Restores the entire computer backup. All data on existing volumes of this computer will be     overwritten with the data from backup file.     System volumes only
Disk Mapping Summary Progress	Kestores any system volumes required for the operating system to runction. Recommended in situations when your computer does not boot up.     (advanced)     Restores selected volumes only, with the ability to re-allocate partitions and volumes. This restore mode should be used by advanced users only.
50	View automatically detected disk mapping

- **9.** You can map volumes that you want to restore from the backup to disks on the target computer. To map volumes:
  - a. Select the check box of the volume that you want to restore from the backup.
  - **b.** By default, Veeam Agent restores all volumes to their initial location. To map the restored volume to another computer disk, click **Customize disk mapping** on the bottom of the wizard.
  - c. In the **Disk Mapping** window, specify which volumes must be restored.
  - **d.** Right-click the target disk on the left side of the screen, and then select the necessary disk layout.
    - **Apply Backup Layout:** Select this option if you want to apply the settings that were used on your computer when you performed the backup.
    - **Apply Disk Layout:** Select this option if you want to apply the current disk settings of another disk.
    - Erase Select this option if you want to discard the current disk settings.
- **10.** Click the **Network storage** option, to restore from the Backup Repository that resides on the network.





### Figure 9-7: Veeam Endpoint Recovery – Backup Location

### Notes:

- It is possible to perform a restore by using the Local Storage (USB Disk) option. To do so, copy the appropriate directory from the backup repository to the USB Disk. Connect it to the CloudBond 365, and then select Local Storage on the Backup Location screen.
- If the backup topology is connecting the local USB disk to the CloudBond 365, select the Local storage option (Shared folder option) and browse to the relevant directory to select the *vbm* file. In this case, the steps below are not relevant.
- **11.** Set the IP address for the recovery session by selecting **Configure Network Settings**.

Figure 9-8: Network Storage



**12.** On the Network Settings screen, select the correct network adapter with the valid IP address, and then click **OK**.



Figure 9-9: Network Settings

**13.** On the Network Storage screen:

- If the VBR is running on a CloudBond 365 host, click the **Shared folder** because the VBR cannot be accessed.
- If the VBR is running on an external server, click the **Veeam backup repository** option.
- 14. Click Next.
- 15. The Veeam backup repository option is selected.

Figure 9-10: Veeam Endpoint Recovery – Network Storage

	Volume Level Restore	
Network Stor Specify the net	rage twork storage type holding the backup files you want to restore from.	
Backup Location	O Shared folder	
Network Storage	Select this option if your backup files are stored in SMB (Cli (NAS) device or on a regular file server	FS) share on a Network Attached Storage
Backup Server	A	
Backup	Veeam backup repository     Select this entire if your header files are treating if your header files a	And the second se
	Select this option if your backup files are stored in a veeam	i backup repository.
Restore Point	O Veeam Cloud connect repository	
Restore Mode	Select this option if your backup files are stored in a cloud r Connect service provider.	repository hosted by the Veeam Cloud
Summary	O Minneth One Datus	
Progress	Select this option if your backup files are stored in the Micro	osoft OneDrive.
		Configure network settings
EN	< Previous Ne	ext > Finish Cancel

**16.** Provide the Veeam Agent credentials that you defined when you configured the backup, and then click **Next**.



Sackup Location	Veeam backup 10.21.55.60	server name or IP	address:	Port: 10001	- Ale
Backup Server	Usernamer	cloudbond 365b)	administrator		
Backup Restore Point	Password:				T D
lestore Mode					
hummary Progress					

Figure 9-11: Veeam Endpoint Recovery – Backup Server

- **17.** You need to provide the full path to the Veeam Agent backup that is on the repository server. The name of the directory of the Veeam Agent backup is a combination of the *server name* and the Veeam Agent *user name*. Browse to the backup repository using another server to see what the full path name is.
- **18.** Select the backup server to recover from, and then click **Next**.
  - Figure 9-12: Veeam Endpoint Recovery Backup

	Veeam Endpoint Recove	ry	x
Backup Specify a backup to backup.	restore from. You can type in a few letters of your cor	mputer name in search to q	uickly locate the required
Backup Location	Selected computer: WIN-NR1LEU2FL1R		
Natural Oceans	Name	Last backup	Restore points
Network Storage	Backup Job WIN-NR1LEU2FL1R	12/3/2015 12:30 AM	
Backup Server	WIN-NRILEU2FL1R	12/3/2015 12:30 AM	4
Backup			
Restore Point			
Disk Mapping			
Summary			
Progress			
	<b>↓</b> Type in an object name to search for		Q
	< Previous	Next > Fir	nish Cancel

**19.** From the Restore Point screen, select the appropriate restore point, and then click **Next**.

8	Veeam Endpoint Reco	very X
Restore Point Select a desired rest Backup Location	ore point. Computer name: WIN-NR1LEU2FL1R	Volumes included: <b>C</b>
Network Storage Shared Folder	Disks included: <b>Disk 0</b> Operating system: <b>Windows Server 2012 I</b> <u>R</u> estore points:	R2 Standard
Backup Restore Point	Date	Type Increment Increment
Disk Mapping Summary	(5) 12/2/2015 Wednesday 4:34 PM (5) 12/2/2015 Wednesday 4:31 PM	Increment Full
Progress		
	< <u>P</u> revious	s Next > Enish Cancel

Figure 9-13: Veeam Endpoint Recovery – Restore Point

20. Select the Manual restore (advanced) option, to choose what computer volumes you want to restore and manually allocate disk space on the restored volumes, and then click Next. (To view the current disk allocations settings on your computer, click View automatically detected disk mapping on the bottom of the screen. Delete unwanted volumes on that screen.)



2	Veeam Endpoint Recovery
Restore M Specify a res Backup Location Network Settings Network Storage	ade tore mode.
Shared Folder Backup Restore Point Restore Mode	Restores only system volumes required for the operating system to function. Recommended in situations when your computer does not boot up.  ( Manual restore (advanced) Restores selected volumes only, with the ability to re-allocate partitions and volumes. This restore mode should be used by advanced users only.
Disk Mapping Summary Progress	Vew automatically detected dak mapping
EN	< Previous Next > Enish Cancel

- **21.** You can map volumes that you want to restore from the backup, to disks on the target computer. To map volumes:
  - a. Select the check box of the volume that you want to restore from the backup.
  - By default, Veeam Agent restores all volumes to their initial location. To map the restored volume to another computer disk, at the bottom of the wizard click
     Customize disk mapping. In the Disk Mapping window, specify which volumes must be restored:
  - **c.** Right-click the target disk on the left side of the screen and select the necessary disk layout.

- Apply Backup Layout: Select this option if you want to apply to the disk, the settings that were used on your computer when you performed the backup.
- Apply Disk Layout: Select this option if you want to apply to the current disk settings of another disk.
- Erase Select this option if you want to discard the current disk settings.

**Disk Mapping** and cust ng between the backed up computer and this computer. op disk mane Backup Locat **Disk mapping** Volume Layout Capacity Restore layout Туре Disk 0 Windows (... Simple Basic 48.8 GB Automatic 2 These disk mapping rules can be customized (for advanced users only) disk m < Previous Next > Cancel

Figure 9-15: Disk Mapping

- 22. On the Disk Mapping screen, click **OK**, and then **Next**.
  - Figure 9-16: Veeam Endpoint Recovery Disk Mapping

Disk 0	Windows (C:)	Data (D:)	Recovery (E:)
76.9 GB	48.8 GB NTFS	410, Remove	17.7 GB NTFS
Basic	Healthy (Active, Primar)	Heating criming ramoun	Healthy (Primary Pa
Disk 2 465.8 GB Basic	TOSHIBA EXT (G:) 465.8 GB NTFS Healthy (Active, Primary	Partition, Backup)	

- 23. On the Veeam Endpoint Recovery Summary screen, click **Restore** to start the recovery.
- **24.** When the Restore process ends, re-start the server.

	Veeam Endpoint Recovery	x
Review the restore a	settings and click Next to start the restore process.	
Backup Location Network Storage Backup Server Backup Restore Point Disk Mapping Summary Progress	Restored computer name: WIN-NR1LEU2FL1R Restore point: 12/2/2015 11:30 PM Restore mode: Manual	_
	< Previous Restore Finish Cancel	

### Figure 9-17: Veeam Endpoint Recovery – Summary

# 9.3 Performing Post-Restore – Exiting Domain Controller Safe Mode

If the host is a Domain Controller, log in with Safe boot mode. If the host is not a Domain Controller, skip this procedure.

After performing a full Virtual Machine restore, the Domain Controller computer boots up in what appears to be Safe mode. When the Domain Controller boots for the first time, it is actually in Active Directory Services Restore mode as you are booting from a backup file. However it should automatically re-boot.

- > To exit the Domain Controller in Safe mode:
- 1. Log in with the Directory Services Restore mode account (typically.\administrator).
- 2. Open a command prompt and run the following:

```
bcdedit /set safeboot dsrepair
bcdedit /deletevalue safeboot
shutdown -t 01 -r
```

- 3. CloudBond 365 should then re-boot in Normal mode.
- 4. Log in to the Domain Controller as the Domain Administrator
- 5. For more information, refer to the Microsoft Knowledge Base article in <a href="http://technet.microsoft.com/en-us/library/cc816897(WS.10">http://technet.microsoft.com/en-us/library/cc816897(WS.10</a>).aspx.

# 9.4 Validating Network Settings

You need to confirm that **all** network cards are valid and have the correct IP addresses. (You can only check the host network and not the VM in this step). Compare it to the information you saved when you defined the backup (See Section 8 on page 81).

Validate that the Hyper-V virtual network switch is set correctly. Every virtual network is connected to a real physical card. Compare it to the information you saved when you defined the backup.

Figure 9-18:	Virtual	Switch	Manager
--------------	---------	--------	---------

👯 Virtual S	witch Manager for WIN-MDIHCAN9LQM
<ul> <li>Virtual Switches</li> <li>New virtual network switch</li> <li>PE Ethernet 1Gb 4-port 331FLR A</li> <li>AN HP Ethernet 1Gb 4-port 331FLR A</li> <li>Global Network Settings</li> <li>MAC Address Range 00-15-5D-46-2C-00 to 00-15-5D-4</li> </ul>	witch Manager for WIN-MDIHCAN9LQM     witch Manager for WIN-MDIHCAN9LQM     Name:     Marce:     MZ   Notes:   Connection type     What do you want to connect this virtual switch to?
	Remove         SR-IOV can only be configured when the virtual switch is created. An external virtual switch with SR-IOV enabled cannot be converted to an internal or private switch.         OK       Cancel       Apply

If the Network cards are not functioning correctly, see the Troubleshooting section in Appendix C 5on page 117.

# 9.5 Preparing Volume D: for Restoring VMs from the VBR

The following procedure describes how to prepare Volume D: for restoring the VMs from the VBR, as described in Section 9.8 on page 102.

### > To prepare Volume D: for restoring the VMs from the VBR:

- 1. Log in to the host in Normal mode.
- 2. Open the Disk Management screen and create Volume D:, if it does not exist. Volume D: should use all the free disk size, depending on the CloudBond 365 type.

Figure	9-19:	Disk	Management
--------	-------	------	------------

Disk Management					_ □	x
File Action Vi	ew Help					
I I I I I I I I I I I I I I I I I I I	57 🖗 📽 😼					
Volume	Layout Type File System S	tatus	Capacity	Free Spa	% Free	
📼 Windows (C:)	Simple Basic NTFS H	lealthy (S	48.83 GB	22.98 GB	47%	
Basic 238.47 GB	Windows (C:) 48.83 GB NTFS	189,64 G	B	New Simple Vol	//////////////////////////////////////	
Online	Healthy (System, Boot, Page File, Active, Crash D	un Unalloca	ated	New Snanned V	olume	-8
				New Striped Vol	ume	2
				New Mirrored V	olume	
				New RAID-5 Vol	ume	
Unallocated Primary partition				Properties		
				Help		



### Notes:

- If the D: drive is already assigned to USB storage, change the drive letter to something else before you continue.
- If you wish to also restore Volume E:, make sure you have 32 GB of available disk space.

R		Dis	sk Managem	ent	l		x
Ale Action View	Help						
I I I I I I I I I I I I I I I I I I I	1 🕼 😼						
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% F
C TOSHIBA EXT (F:)	Simple	Basic	NTFS	Healthy (A	465.76 GB	155.97 GB	33
VEEAMRE (D:)	Open	Dania	EATOO	Healthy (A	3.71 GB	3.32 GB	89
Windows (C:)	Evolore			Healthy (S	48.83 GB	22.01 GB	45
	Explore			-			
	Mark Partitio	n as Active					
	Change Drive	e Letter and P	aths				
<	Format						>
	Extend Volun	ne					
Disk 0	Shrink Volum	1e					Ĥ
Basic	Add Mirror						≡
Online	Delete Volum	1e		.05 GB			
				·			$\square$
	Properties						4
Disk 1	Help						H
Removable	FFAMRE (D)						~
	mary partition						

Figure 9-20: Disk Management – Change Drive Letter and Paths

- **3.** Right-click on the disk.
- 4. Select New Simple Volume; the Welcome New Simple Volume Wizard appears.
- 5. Click Next.

Figure 9-21: New Simple Volume Wizard - Welcome



- 6. Click the Assign the following drive letter option.
- 7. From the drop-down list, select the drive letter, and then click Next.



New Simple Volume Wizard	x			
Assign Drive Letter or Path For easier access, you can assign a drive letter or drive path to your partition.				
<ul> <li>Assign the following drive letter:</li> <li>Mount in the following empty NTFS folder:</li> <li>Browse</li> </ul> O not assign a drive letter or drive path				
< Back Next > Car	ncel			

Figure 9-22: New Simple Volume Wizard – Assign Drive Letter or Path

- 8. Click the Format this volume with the following settings option.
- 9. Enter the appropriate values as shown in the screen below, and then click Next.

Figure 9-23: New Simple Volume Wizard – Format Partition

New Simple Volume Wizard					
Format Partition To store data on this partition, you n	nust format it first.				
Choose whether you want to format	this volume, and if so, v	what settings you want to use.			
◯ Do not format this volume					
<ul> <li>Format this volume with the format</li> </ul>	llowing settings:				
File system:	NTFS	<b>~</b>			
Allocation unit size:	Default	¥			
Volume label:	New Volume				
Perform a quick format					
Enable file and folder compression					
<back next=""> Cancel</back>					

### 10. Click Finish.

Figure	9-24:	New	Simple	Volume	Wizard	– Finish

1	New Simple Volume Wizard	x
	Completing the New Simple Volume Wizard	
	You have successfully completed the New Simple Volume Wizard. You selected the following settings: Volume size: 194195 MB Drive letter or path: D: File system: NTFS Allocation unit size: Default Volume label: New Volume Duick format Yes To close this wizard, click Finish.	
	< <u>B</u> ack Finish Canc	;el

## 9.6 Updating Host Virtual NIC MAC Address After Restore

When CloudBond 365 is working correctly, its vEthernet (VLAN) NIC interface receives one of the physical MAC addresses of the server and uses it. After a Restore, the vEthernet NIC interface receives a unique MAC address, which needs to be updated. After a Restore, the MAC addresses appear as follows:

### Figure 9-25: MAC Addresses After Restore

Name	InterfaceDescription	ifIndex Status	MacAddress	LinkSpeed
vEthernet (LAN)	Hyper-V Virtual Ethernet Adapter #2	19 Up	00-90-FB-50-9B-D9	10 Gbps
Ethernet 3	Intel(R) 82574L Gigabit Network Co#2	14 Disconnected	00-90-8F-5F-03-C2	0 bps
Ethernet 2	Intel(R) 82579LM Gigabit Network Con	13 Up	00-90-FB-4F-AA-2B	100 Mbps
Ethernet	Intel(R) 82574L Gigabit Network Conn	12 Disconnected	00-90-8F-5F-03-C3	0 bps

### > To update the Host Virtual NIC MAC Address After Restore

- 1. Open the Hyper-V Manager.
- 2. Navigate to the Virtual Switch Manager.
- 3. Under **Connection type**, clear the 'Allow management operating system to share this network adapter' check box, and then click **Apply**.

# Figure 9-26: Hyper-V Manager

8 ·		riyper-v manager				
File Action Vie	Virtual Switch Manager fo	r WIN-NR1LEU2FL1R	- 🗆 X			
🗢 🔿 📶						
🔡 Hyper-V Manag	Virtual Switches	erties		A	ctions	
WIN-NR1LE	A DMZ     Name:			1	WIN-NR1LEU2FL1R	• ^
	Broadcom NetXtreme Gigabit Ether LAN				New	۶.
	Broadcom NetXtreme Gigabit Notes:			6	🖕 Import Virtual Mac	
	stressions		^		Hyper-V Settings	
	Global Network Settings		_		👔 Virtual Switch Man	
	00-15-5D-81-70-00 to 00-15-5D-8				🛃 Virtual SAN Manag	
	What do you want t	connect this virtual switch to?		8	💰 Edit Disk	
	<ul> <li>External networ</li> </ul>	c		d	Inspect Disk	
	Broadcom NetX	reme Gigabit Ethernet	~		Stop Service	
	Allow manag	ement operating system to share this network ac	lapte <sup>r</sup>	( ا	K Remove Server	
	Enable single	-root I/O virtualization (SR-IOV)			Refresh	=
	<ul> <li>Internal network</li> </ul>				View	•
	O Private network				? Help	
	VLAN ID			s	bc_6.80A.234.004	
	Enable virtual LA	N identification for management operating syste	m		Connect	
	The VLAN identifier	pecifies the virtual LAN that the management op	erating		Settings	
	system will use for a setting does not aff	II network communications through this network a act virtual machine networking.	adapter. This		Turn Off	
	2				Shut Down	
				gration ser	Save	
			Remove	gration ser	Pause	_
	SR-IOV can only b	e configured when the virtual switch is created.	An external		Reset	
	virtual switch with switch.	SR-IOV enabled cannot be converted to an inter	nal or private		Checkpoint	
					Move	
		OK Cancel	Apply		R	
						_

- 4. Click OK.
- 5. After the update, the MAC address should look like 00-90-FB-50-9B-D9.

Figure 9-27: MAC Addresses After Update

PS C:\Users\Administrator:	• Get-NetAdapter				
Name	InterfaceDescription	ifIndex	Status	MacAddress	LinkSpeed
vEthernet (LAN)	Hyper-V Virtual Ethernet Adapter #2	22	Up	00-90-FB-50-9B-D9 🔪	10 Gbps
Ethernet 3	Intel(R) 82574L Gigabit Network Co#2	14	Disconnected	00-90-8F-5F-03-B4	0 bps
Ethernet	Intel(R) 82579LM Gigabit Network Con	12	Up	00-90-FB-50-9B-D9 🖊	100 Mbps
Ethernet 2	Intel(R) 82574L Gigabit Network Conn	13	Disconnected	00-90-8F-5F-03-B5	0 bps

# 9.7 Clearing Old Virtual Machine Data

The procedure below describes how to clear old Virtual Machine (VM) data.

### > To clear old Virtual Machine data:

- **1.** Open the Hyper-V Manager.
- 2. From the Hyper-V main page, delete all the VMs including checkpoints.

Figure 9-28: Hyper-V	Manager -	Virtual Machines
----------------------	-----------	------------------

1.4			Нуре	r-V Manager		
File Action View Help						
🗢 🔿 🗾 🖬 🖬						
📑 Hyper-V Manager						
WIN-NR1LEU2FL1R	Virtual Machines					
	Name	State	CPU Usage	Assigned Memory	Uptime	Status
	Controller	Running	0 %	8192 MB	6.19:46:36	
	Edge	Running	0 %	16384 MB	6.19:44:36	
	Front-End	Running	0 %	24576 MB	6.19:45:36	
	ReverseProxy	Running	0 %	2048 MB	6.19:43:36	
	sbc_6.80A.234.004	Running	0 %	2048 MB	02:43:00	
	2			ш		
			The selected virtual	machine has no checkpo	bints.	
	sbc_6.80A.234.004					
	Adapter	Conne	ection	IP Addresse	\$	Status
	Network Adapter (Dynamic	: MAC: 0 LAN				Degraded (Integr
	Network Adapter (Dynamic Network Adapter (Dynamic	MAC: 0 LAN				Degraded (Integr Degraded (Integr

3. You need a clean Hyper-V Manager without any VMs before restoring the VMs.

## 9.8 **Restoring all VMs from the VBR**

The procedure below describes how to restore all VMs from the VBR.

- To restore all VMs from the VBR:
- 1. Open the VBR console.
- 2. Launch the Restore wizard (Home tab > Restore menu > Microsoft Hyper-V).

Figure 9-29: VBR – Hyper-V

2011日1日1日1日1日1日1日1日1日1日1日1日1日1日1日1日1日1日1			VEEAM BACKUP AND REPLICATION
E- HOME VIEW			
	re Failover Plan v Microsoft Hyper-V		
HOME	Restore Launches the Restore wizard.	serch for X	START TIME END TIME
Hackup	Rescan of Manually Added	Rescan Success	3/14/2019 9:00 PM 3/14/2019 9:00 PM
<ul> <li>Backups</li> <li>Disk</li> </ul>	<table-cell> Fax_VM (Full)</table-cell>	Backup Success	3/14/2019 8:30 PM 3/14/2019 8:52 PM
Last 24 Hours			
Failed			

- 3. Select **Restore from backup** and then click the **Entire VM** option.
- 4. Click Next.

### Figure 9-30: Hyper-V – Restore Type

Restore

Choose whether you want to restore from backup or replica.



Restore from backup Performs restore from a backup file.



Restore from replica Performs restore from a replica VM.

 $\times$ 

### 5. Select Entire VM Restore.

### Figure 9-31: Restore from Backup



Restore from Backup

Select the type of restore you want to perform.

Entire VM restore Restores the entire VM

Restores the entire VM or its individual components, such as virtual disks.



Guest files restore

Restores individual guest files from an image-level backup.



Application items restore

Restores individual application items from an image-level backup.

### 6. Click Add, and then select the From backup option.

7. Click Next.

### Figure 9-32: Full VM Restore Wizard – Virtual Machines

		Ins	tant VM Recove	ery	×	
	Machines Select machines to be (containers will be aut	restored. You can add indiv omatically expanded to pla	vidual machines fro in list).	om backup files, or container	s from live environment	
Machines	;	Machines to restore:				
Recovery	Mode	Q Type in machine nam	ne for instant looku	IP		
Secure Re	estore	Name	Size	Restore point	Add	
Reason					From inf From ba	rastru ckup.
Summary	/				nemeve	T
		L				
			<	Previous Next >	Finish Cancel	

8. Select the server you wish to restore (e.g., Fax\_VM), and then click Add.

### Figure 9-33: Backup Browser

	Backups Brov	vser	x
Select machine:			
Job name	Last restore point	Machine cor Restore points count	
🖻 🖄 Backup Job 1	4/27/2018 3:02:06 AM	4	
Fax_VM	3/14/2019 8:32:40 PM	1	
Type in an object name	e to search for	(	2

9. Click Next.

### Figure 9-34: Full VM Restore Wizard – Virtual Machines

	Instan	t VM Recove	ery	x
Machines Select machines to be (containers will be aut	restored. You can add individu omatically expanded to plain li	ial machines fro st).	om backup files, or containers from live e	environment
Machines	Machines to restore:			_
Recovery Mode	V Type in machine name f	or instant looku	IP	
Secure Restore	Name	Size	Restore point	Add
beenenestore	FaxAA-5566-2016	25.0 GB	less than a day ago (8:34 PM	Point
Reason				Remove
Summary				Kentove
				-
		<	Previous Next > Finish	Cancel

**10.** Click the **Restore to the original location** option, and then click **Next**.

Figure 9-35: Full VM Restore Wizard – Restore Mode

	Full VM Restore	x
Restore Mode Specify the desired re	estore mode.	
Virtual Machines Restore Mode	Restore to the original location Quickly initiate the restore of selected VM to its original location, with the original name and settings. This option minimizes the chance of user input error.	
Secure Restore Reason Summary	<ul> <li>Restore to a new location, or with different settings</li> <li>Customize the restored VM location, and change its settings. The wizard will automatically popul all controls with the original VM settings as the defaults.</li> </ul>	late
	Quick rollback (restore changed blocks only) Allows for quick VM recovery in case of guest OS software problem, or user error. Do not use this option when recovering from disaster caused by hardware or storage issue, or power loss.	;
	< Previous Next > Finish Cancel	



11. Click Next to skip the Secure Restore.

### Figure 9-36: Secure Restore

	Full VM Restore
Secure Restore Scan the selected ba compatible antivirus	ckup for malware, such as computer viruses or ransomware, prior to performing the restore. This requires a installed on the mount server specified for the corresponding backup repository.
Virtual Machines Restore Mode	Scan the restored machine for malware prior to performing the recovery The machine you are about to restore will be scanned by antivirus software installed on the mount server to prevent a risk of bringing malware into your environment.
Secure Restore Reason Summary	If malware is found:   Proceed with recovery but disable network adapters  Abort VM recovery  Scan the entire image Continue scanning remaining files after the first malware has been found.
	< Previous Next > Finish Cancel

**12.** Add the **Restore reason**, and then click **Next**.

Figure 9-37: Full VM Restore Wizard – Reason

	Full VM Restore	x
Reason Type in the reason f reference.	for performing this restore operation. This information will be logged in the restore sessions history for later	r
Virtual Machines Restore Mode Secure Restore	Restore reason:	-
Reason Summary	Do not show me this page again	
	< Previous Next > Finish Cancel	]

**13.** Approve to delete the object from the infrastructure.

Figure 9-38: Veeam Backup Replication



14. Make sure the 'Power on VM after restoring' check box is cleared.

Figure 9-39: Full VM Restore - Summary

	Full VM Restore	x
You can copy this co	onfiguration information for the future reference.	
Virtual Machines Restore Mode Secure Restore Reason Summary	Summary: Original VM name: FaxAA-5566-2016 New VM name: FaxAA-5566-2016 Restore point: less than a day ago (8:34 PM Thursday 3/14/2019) Target host: 10.21.55.60 Restore to original location Network mapping: LAN -> LAN	
	< <u>P</u> revious <u>N</u> ext > <u>F</u> inish Cance	el

**15.** Click **Finish**, and then wait for the Restore process to end.



**16.** On the VM Restore screen, click **Close**.

Figure 9-40: VM Restore

	VM re	store		
VM name: Restore type: Initiated by:	FaxAA-5566-2016 Full VM Restore WIN-15FM3LKQ9P3\Administrator	Status: Start time:	In progress (0%) 3/15/2019 12:34:37 AM <u>Canc</u>	el restore tas
Message			D	uration
Starting re	estore job			
Restoring	from HDD_VMs			
C Locking re	equired backup files			0:00:02
C Looking u	p the original host			0:00:23
Original V	M FaxAA-5566-2016 is already registere	d on host 10.	21.55.60 and will be	
Queued fo	or processing at 3/15/2019 12:35:04 AM			
Processin	g FaxAA-5566-2016			0:00:19
V Required I	packup infrastructure resources have be	een assigned		
			[	<u>C</u> lose
### 9.9 Restoring D: and E: Drives and Files

If the D: and E: drives were backed up, you need to restore them.

- To restore D: and E: Drives and files:
- 1. From the Veeam main screen, run the File Level Restore menu option.

Figure 9-41: File Level Restore



2. Select the restore point, and then click **Next**.



B	File Level Restor	e	×
Restore Point Select a restore point	t to restore files to.		
Backup Location Remote Storage	Computer name: WIN-NR1LEU2FL1R Disks included: Disk 0 Operating system: Windows Server 2012	Volumes included: C, E 2 R2 Standard	
Backup Server Backup Restore Point Summary	Prestore points:           Date           @ 12/7/2015 Monday 4:46 PM           @ 12/6/2015 Sunday 11:30 PM           @ 12/6/2015 Sunday 2:51 PM           @ 12/2/2015 Wednesday 11:30 PM           @ 12/2/2015 Wednesday 11:30 PM           @ 12/2/2015 Wednesday 5:12 PM           @ 12/2/2015 Wednesday 3:34 PM           @ 12/2/2015 Wednesday 3:31 PM	Type Increment Increment Increment Increment Increment Full	
	< Previ	ous Next > Finish C	ancel

3. Click Finish.

 Summary
 Prease review the restore settings you have selected. Once you click Finish, we will mount the selected restore point, and open the Backup Browser window where you will be able to select files to restore.
 Xeronal Strategy

 Backup Location
 Restored computer name: WIN-NR1LEU2FL1R
 Restore point: 12/7/2015 5:46 PM

 Backup Server
 Backup
 Restore Point
 Summary

 Summary
 Electronal Computer name: WIN-NR1LEU2FL1R
 Restore point: 12/7/2015 5:46 PM

 Restore Point
 Summary
 Electronal Computer name: WIN-NR1LEU2FL1R

 Restore Point
 Summary
 Electronal Computer name: WIN-NR1LEU2FL1R

 Version
 Restore Point
 Summary

 Summary
 Electronal Computer name: WIN-NR1LEU2FL1R
 File Action Point: 12/7/2015 5:46 PM

 Restore Point
 Summary
 Electronal Computer name: WIN-NR1LEU2FL1R
 File Action Point: 12/7/2015 5:46 PM

Figure 9-43: File Level Restore - Summary

- 4. On the Backup Browser, select the drive you wish to restore.
- **5.** Right-click the appropriate drive.
- 6. Select **Restore > Overwrite**.

#### Figure 9-44: Backup Browser

Backup Brows	er (WIN-NR1LEU2FL1R a	t 12/7/2015 5:46 PM)		_ 🗆 X
Hone Back Forward Folder View Up - Navigation Actions				
	Overwrite	Folder Size	Creation Date 12/7/2015 5:40	Modified Date 12/7/2015 5:40
Copy for Explore Properties	кер			
1 object				0.0 KB:

### 9.10 Starting the Virtual Domain Controller

If the Domain Controller is a Virtual Machine, it automatically starts in **Safe** mode. If it does not, skip this procedure.

When the Domain Controller boots for the first time, it is actually in Active Directory Services Restore mode as you are booting from a backup file. However it should automatically reboot.

- **To Start the Virtual Domain Controller:**
- 1. Log in with the Directory services restore mode account (typically .\administrator)
- 2. Open the command prompt and run the following:

bcdedit /set safeboot dsrepair bcdedit /deletevalue safeboot

- 3. Re-boot the virtual Domain Controller. It should re-boot in Normal mode.
- 4. Log in to the Domain Controller with the domain administrator.
- 5. For more information, refer to the Microsoft Knowledge Base Article below for further details <u>http://technet.microsoft.com/en-us/library/cc816897(WS.10).aspx.</u>

# 9.11 Restarting the CloudBond 365 Server and Testing the Restore

The procedure below describes the tests the need to perform to validate the restoreLog in and perform the following tests to confirm successful restore. These tests must be done to check that the restore process successfully completed.

#### > To confirm that the restore process was successful:

- 1. Restart the CloudBond 365 server.
- 2. If the Virtual Machine belongs to the domain, log in to every Virtual Machine as the Domain Administrator. If not, log in as the local Administrator. If a Trust error message appears, reset the computer account using the Active directory.
- 3. Check that all services are running.
- 4. Confirm that the date and time are correct and if necessary update them..
- 5. Check that the Windows License has been activated. If not activate it according to the instructions on the sticker.
- 6. Log in to SysAdmin and confirm that SysAdmin is working.
- 7. From the Server Manager, select the **AD DS** menu option.
- 8. From the 'TASKS' drop-down list, run the Best Practices Analyzer by selecting **Start BPA Scan**. Confirm that there are no errors which are as a result of the recovery.

6	Server Manager	_ <b>_</b> X
<ul> <li>Control Control Control</li></ul>	Server Manager Anager + AD DS • (2)   Manage Tools BEST PRACTICES ANALYZER Warnings or Errors [ 2 of 42 total Filter Papied. × Clear All Server Name Severity Title UC-DCA Warning All OUs in this domain should be protected from accidental deletion UC-DCA Error The PDC emulator master UC-DCA cloudbondA365.com in this forest should <	View Help
	All results   1 total   Last 24 hours	TASKS V

#### Figure 9-45: Server Manager

- **9.** From the command line, run the **dcdiag** command on the Domain Controller. All tests should pass (ignore if the MSDFS test fails).
- **10.** One day after the Restore process has completed, confirm that the backup process still works automatically.
- **11.** For BPA / Pool Pairing, run **repadmin /showreps** from the command line and then confirm that the DC was replicated.
- **12.** If the system was installed in Resource Forest mode, confirm that the trust with the company forest is valid.
- **13.** Confirm that the VBR Job has been enabled. If not, re-scan the repository (right-click the repository and select Re-scan) when finishing enabling the job.
- **14.** Run the backup job and confirm that you are able to backup.
- **15.** One day after the restore, confirm that the backup is still working automatically for the Veeam Agent.
- **16.** Validate that all VMs don't have Checkpoints in case they have need to delete it.

## A Creating the Veeam Recovery Media USB

It is recommended to update the Restore Recovery USB that you get with the system, according to the following procedure. It keeps several settings which are relevant for your server (Drivers/IP). The USB minimum required size 4 GB.

This appendix describes how to create a Veeam Recovery Media USB.

#### To create a Veeam Recovery Media USB:

- 1. Insert the USB in to the CloudBond 365 device.
- 2. From the Start menu, run the Veeam Create Recovery Media.

rigure A n. oreate Recovery mean	4
Search	
Everywhere 🗸	
rec <mark>overy Media</mark>	2
Create Recovery Media	
Steps Recorder	

#### Figure A-1: Create Recovery Media

3. On the Recovery Media screen, select the USB drive.

$\odot$	Create I	Recovery Media		X
Recovery Media Specify bare metal	recovery media options.			
Recovery Media	Available bootable media typ	es:		25
Ready to Apply	Name	Туре	Capacity	
	📼 G:\	VEEAMRE (G:)	28.9 GB	
Progress	📼 Image	ISO image file		
	<ul> <li>☐ Include decryption key for</li> <li>✓ Include network connection</li> <li>✓ Include hardware drivers f</li> <li>☐ Include the following addition</li> </ul>	seamless restore from encrypte ons settings from this computer rom this computer (recommend tional storage and network hard	ed backup (protects from pass (recommended) ded) dware drivers:	word loss)
	Folder			Add
				Remove
		< Previous	lext > Finish	Cancel

#### Figure A-2: Create Recovery Media – Recovery Media

- 4. Click **Next** until the Progress step is displayed.
- 5. Approve the prompt to **Proceed**.
- 6. Click **Create** to make the recovery media.

#### Figure A-3: Create Recovery Media – Recovery Media

$\odot$	Create Recovery Media
Read Revie	<b>dy to Apply</b> ew the settings you have specified, and click Create to create the recovery media.
Recovery Media Ready to Apply Progress	Summary: Recovery media will be created with the following settings: Include network connections settings from this computer Hardware drivers to include: Current system drivers Destination: G:\ (Target USB disk will be formatted. Formatting will erase all data on this disk.)
	, < Previous Create Finish Cancel

7. When the process has completed, click **Finish**.

#### Figure A-4: Create Recovery Media – Progress

0	Create Recovery Media	×
Progress Please wait while t	recovery media is created. This may take a moment.	
Recovery Media	Log:	
D 1 1 A 1	Message	Duration
Ready to Apply	Mounting Recovery Environment image	00:05
Progress	Copying Veeam Recovery Environment files	00:02
	S Adding .NET Framework	00:02
	Section 2 Adding system drivers	00:31
	S Adding Internet browser	00:02
	Copying boot files	00:01
	Superior Contraction Contracti	00:25
	💙 Preparing USB disk	02:13
	Copying data to USB disk	00:34
	🛛 Recovery media has been created	
	< Previous Next > Finish	Cancel

8. Remove the USB from the device.

# B Preparing for Veeam's Software Installation on CloudBond 365 Server

The following must be done before installing Veeam's software on the CloudBond 365 server.



Note: Installing backup may require a server restart.

Before installing Veeam's Software on CloudBond 365 Server, do the following:

- 1. Decide which backup architecture is required according to the available options.
- 2. Confirm that all servers are working (up and running).
- **3.** To install Veeam software, you must use the Remote Desktop Connection to the CloudBond 365 and to the Backup server (VBR).
- 4. Download the software on the VBR server.
- 5. CloudBond 365 may require Windows updates to support the backup.



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# **C** Troubleshooting

The following provides information to assist you in troubleshooting issues.

# C.1 Restoring Host Server using Veeam Agent if no or some Network Cards are Available

Make sure that when you are restoring the Host server using Veeam Agent, you first clear the 'Inject these drivers...' checkbox. If you didn't do this, perform the restore procedure again correctly.

⊾€ Tools				
			Hardware Drivers	
			All storage and network adapters for which drivers are available are shown below. If your some adapters, click Load Driver below to supply the driver manually.	recovery media does not include drivers for
		Commanc	Storage and network adapters:	
		Opens Microsoft \	Name	State
	C:\	command promp	Disk drives	
			TOSHIBA External USB 3.0 USB Device	Online
			Standard Dual Channel PCI IDE Controller	Online
		_	Smart Array P420 Controller (Media Driver)	Online
		Reset Pass	Kingmax USB2.0 FlashDisk USB Device	Online
	$\frown$	Posota Local Admi	HP LOGICAL VOLUME SCSI Disk Device	Online
	¥A)	nassword	ATA Channel 1	Online
		passirora.	ATA Channel 0	Online
			Network adapters	
			Ricrosoft Kernel Debug Network Adapter	Online
		Load Drive	Broadcom NetXtreme Gigabit Ethemet #4	Online
			Eroadcom NetXtreme Gigabit Ethemet #3	Online
	±	Select and load dr	Broadcom NetXtreme Gigabit Ethemet	Online
		bardware		
		Haraware.		
			Inject these drivers into operating system while performing bare metal recovery	
			Load Driver	OK

Figure C-1: Hardware Drivers – Clear Check Box

- To restore the Host Server using Veeam Agent if no or some network cards are available:
- 1. Open the device manager and enable the 'Shown hidden device' option from the **View** menu.
- 2. Delete all the network cards which are marked with an error flag.
- 3. From Action menu select the Scan option.
- 4. Ensure that all networks are available now.
- 5. Restart the server.
- 6. Define the HyperV virtual switch again, using the same names as was done previously (e.g., LAN and DMZ).

## C.2 No Boot Device Error – Setting Boot Priority

If a USB (Key or Disk) is connected to the server, confirm that the boot order in the BIOS is correct and that the hard disk is set as the first priority, as shown in the figure below.

#### Figure C-2: Hardware Drivers – Setting Boot Priority

Main Configuration Boot Security	– Copyright (C) 2011 A ity Save 8 Exit Event
Boot Configuration	
Bootup NumLock State	[On]
Launch Storage OpROM	[Enabled]
Full Screen Logo	[Disabled]
Post Report	[Disabled]
Summary Screen	[Disabled]
Fast Boot	[Disabled]
GateA20 Active	[Upon Request]
Option ROM Messages	[Force BIOS]
INT19 Trap Response	[Immediate]
Set Boot Priority 1st Boot 2nd Boot 3rd Boot 4th Boot 5th Boot 6th Boot 7th Boot 8th Boot	[Hard Disk: PLEXTOR. [USB KEY:ADATA USB . [USB Floppy] [USB CD/DVD] [USB Hard Disk] [CD/DVD] [Network] [UEFI]

### C.3 No Boot Device Error - How to Define Logical Drive and Selecting Boot Volume

This section is relevant only for CloudBond 365 Pro Box and Enterprise Box editions.

- > To define the logical drive and select the boot volume:
- **R**e-boot the CloudBond 365 server, and then press **F**8; the following screen appears:



From this menu you can:

- View a logical drive. For the Pro Box edition, the name of the drive should be RAID 1. For the Enterprise Box edition it should be RAID 5.
- Delete the current logical Drive
- Create a logical drive
- Select the boot volume

If the RAID setup is incorrect, delete the current one and define the correct one. If you see a Boot Error message, select the boot volume as the logical drive that attaches to the server.

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