vinchin

Vinchin Backup & Recovery v6.5/v6.7

Installation Guide

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Partner Independent Software Vendor

Contents

Overview	1
System Requirements	2
Physical Machine Requirements for Backup Server and Backup Node	2
Virtual Machine Requirements for Backup Server and Backup Node	2
Virtual Machine (VMware) Requirements for Backup Proxy	2
Download ISO Image	3
Vinchin Backup Server	3
Vinchin Backup Node and Proxy	3
Prepare Installation Media for Physical Machine	4
Create Bootable USB Drive	4
Burn Bootable DVD	5
Physical Machine Installation	6
Vinchin Backup Server Installation	6
Preparations before Starting the Installation.	6
Vinchin Backup Server Installation Wizard	10
Vinchin Backup Node Installation (Optional)	16
Virtual Machine Installation	17
Vinchin Backup Server and Backup Node Installation	17
Vinchin Backup Proxy Installation (Optional)	17
Basic Settings	18
Web Console Login	18
Change Admin Password	18
Add Backup Proxy to Vinchin Backup Server	19
License	20

Overview

This documentation is intended to instruct data center system administrators through the process of installing and deploying Vinchin Backup & Recovery to construct your data center backup infrastructure.

Vinchin Backup & Recovery contains the following components:

- Vinchin Backup & Recovery Server (hereinafter called Vinchin Backup Server)
- Vinchin Backup & Recovery Node (hereinafter called Vinchin Backup Node)
- Vinchin Backup & Recovery Proxy (hereinafter called Vinchin Backup Proxy)

Among the 3 infrastructure components, Vinchin Backup Server is the primary infrastructure component which needs to be installed to protect your virtual and hybrid environments. Vinchin Backup Node and Vinchin Backup Proxy are optional components.

Vinchin Backup Node is needed only for backup and restoration of large-scale virtual infrastructures. It is used to decentralize the workload of the Backup Server.

Vinchin Backup Proxy is supported by Vinchin Backup & Recovery v6.0 and v6.5/v6.7, and it is dedicated for VMware vSphere virtual infrastructure without a Storage Area Network (SAN). It needs to be installed on the vSphere ESX/ESXi server as a virtual machine, to improve the backup and restore efficiency.

Both Vinchin Backup Server and Backup Node are recommended to be installed on physical machines. While Vinchin Backup Proxy needs to be installed on VMware vSphere ESX/ESXi server as a virtual machine.

System Requirements

Physical Machine Requirements for Backup Server and Backup Node

No	Hardware	Requirement
1	CPU	2*Intel Xeon E5 (2.5GHz, 4 cores, 8 threads or higher)
2	RAM	32GB or more
3	Network	2*10Gbps Base-T RJ45 ports or more
4	OS Disk	2*100GB SSD
5	OS Disk RAID Level	RAID 1
6	Backup Disk	1.5 times (or more) capacity of the production data size,
		if other storage media will be used as backup storage,
		then backup disk is not required.
7	Backup Disk RAID Level	RAID 5
8	Fibre Channel HBA (optional)	8Gb Fibre Channel or faster

Virtual Machine Requirements for Backup Server and Backup Node

*(For evaluation only)

No	Hardware	Requirement
1	CPU	4*vCPUs or more
2	RAM	8GB or more
3	Guest OS	CentOS 7 Linux (64-bit)
4	Virtual Disk 1	100GB or more (for OS installation)
5	Backup Storage	1.5 times (or more) capacity of the production data size;
		Please do not use virtual disk as backup storage, you can use external
		NAS server or other storage servers to provide iSCSI or NFS shares to
		Vinchin Backup server as backup storage.

Virtual Machine (VMware) Requirements for Backup Proxy

No	Hardware	Requirement
1	CPU	4*vCPUs or more
2	RAM	8GB or more
3	Guest OS	CentOS 7 Linux (64-bit)
4	Virtual Disk	50GB or more (for system volume only)

Download ISO Image

Vinchin Backup Server

Go to Vinchin product trial page using the link below: https://www.vinchin.com/en/support/vm-backup-free-trial.html

Simply register for your free trial with your full name, Email address and your hypervisor name. Then the latest ISO image will be downloaded automatically, at the same time you'll receive an Email with a 60-day free trial license attached.

Please keep the free trial license safe, as after installation you'll need it to activate Vinchin Backup Server for 60 days of full-featured free trial.

Vinchin Backup Node and Proxy

The download link of Vinchin Backup Node is as below: https://www.vinchin.com/download/node/latest

The download link of Vinchin Backup Proxy is as below: https://www.vinchin.com/download/proxy/latest

Prepare Installation Media for Physical Machine

If you have IPMI remote access to your server like iDRAC, then you can skip this bootable ISO preparation part, go to installation part directly.

The installation of Vinchin Backup Server and Vinchin Backup Node on physical machines can be done either by using a USB flash drive or the DVD drive on the physical machine. To create a bootable USB drive or DVD, you can use UltralSO (for Windows), or you can use any other creator which you are familiar with.

To download UltraISO please go to its download page: <u>https://www.ultraiso.com/download.html</u> Below are instructions of how to create bootable USB drive and bootable DVD, choose either way which you prefer to prepare the installation media.

Create Bootable USB Drive

Prepare a 4GB or larger USB drive, and backup all data of the USB drive before you start to create bootable USB drive with it.

Attach the USB drive to your Windows PC and run UltraISO.

Open the ISO image from File > Open menu.

Then choose **Bootable** > Write Disk Image and then click Write to start creating the bootable USB drive.

UltralSO (Trial Vers	sion) - D:\ISO\vinchin B&	&R\6.5.0\vinchin_en	terprise_en-6	.5.0.15158.iso		_		\times
🗋 🖻 • 🕭 🖬	E 2 9 0	i 🖓 📴	i) 🥝 🕩	Total Size:	2427MB	54% of DVD 4.	7GB (- 2048MB))
Image: Bootabl	e CD/DVD 📝 🎲 🕽	× 🖻 🖬 🚳 🌣	🍘 🕴 Path: 🛛	/				
centos? EFI inages isolinux iveDS Packages tools	Write Disk Image Message: Time PM 07:01:48	Event Windows 10 v10.0 J (E:, 31 GB)aigo U:	Build 19042 268 2.0	9512 9512	Tune	Save	+-/Time -09-06 19:48 -09-10 02:07 -09-10 02:07 -09-06 19:48 -09-23 13:29 -11-15 18:19 -11-15 18:19 -09-04 10:58	L 0 0 0 0 0 4
	< Disk Drive: Image File:	(E:. 31 GB)aigo U268 2.00 Uverify D:\ISO\vinchin B&R\6.5.0\vinchin_enterprise_en-6.5.0.15158.iso		✓ □ Verify 5.0.15158.iso	→0910 03:06 →09:22 10:06 →08:30 22:33 ⇒12:10 06:35 ⇒12:10 06:35 ⇒12:10 06:35 =11:15 18:19	4 4 4 4 4 4 4 4 4		
	Write Method: Hide Boot Partition: Done: For	USB-HDD+ V None D%	Elapsed:	00:00:00 Abort	Xpress Boot Remain: Speed: Close	00:00:00 0KB7s		
Copvri	aht (c)2002-2021 EZB Sval	ems, Inc.		Image: 8 files, 84	8 KB	Local: (files, 0 KB	>

It will take a few minutes to write all necessary data to the USB drive, please wait patiently for the whole process to be completed.

Burn Bootable DVD

Make sure your Windows PC has a working R/W DVD drive. Otherwise, attach an external USB DVD drive. Insert a blank or rewritable DVD into your DVD drive.

Run UltraISO, and open the ISO image from **File > Open** menu.

Then choose **Tools** > **Burn CD/DVD image**, set the **Write Speed** to the lowest speed and then click on **Burn** button to start burning the bootable DVD.

UltralSO (Trial)	Version) - D:\ISO\vincl	in B&R\6.5.0\vinchin_enterpri	se_en-6.5.0.15158.iso		- 🗆 X
File Actions Bo	otable Tools Optic	ons Help			
₽ • 🦉 📕	Burn Image			×	
Image: Bo	Message:		Γ	Save	
entos7 EFI isolinux isolinux isolinux isolinux iveOS Packages repodata iools	Time C Recorder: [E:	Event Windows 10 v10.0 Build 19042 Recorder: (E:)HL-DT-STOVDRA Write Speed: 4X (600 KB/s) HL-DT-STDVDRAM GP70N LI0	M GP70N LI01	>	Date/Time L 2019-09:06 19:48 S 2019-09:10 02:07 S 2011-09:15 18:19 S 2021-11:15 18:19 S 2021-09:04 10:58 4 2021-09:04 10:58 4 2021-09:03 00:6 4 2021-09:23 10:06 4 2017-08:30 22:33 4 2015-12:10 06:35 4 2015-12:10 06:35 4
	Write Speed: 4X	(600 KB/s) 🗸 🗸	Write Method: Disc-at-Once(DAO)	\sim	2015-12-10 06:35 4
	Image File: D:\	SO\vinchin B&R\6.5.0\vinchin_e	nterprise_en-6.5.0.15158.iso		2021-11-15 18:19 4
	Done: 0	% Elapsed:	00:00:00 Remain:	00:00:00	
	Era	se Burn	Speed: Abort Close	OKB/s	
Copy	vright (c)2002-2021 E2	< B Systems Inc.	Image: 8 files, 848 KB	Lo	cal: 0 files. 0 KB

It will take a few minutes to write the ISO image to the DVD, please wait patiently until the process to be completed.

For both Vinchin Backup Server and Vinchin Backup Node, you can create the installation media the same way by using the corresponding ISO image. After you have created the installation media, then you can proceed to install.

Physical Machine Installation

No matter you choose to install Vinchin Backup Server or Backup Node from USB drive, or DVD drive, or iDRAC, the installation processes are the same. Please follow the instructions below to complete the installation.

If you are going to install both Vinchin Backup Server and Backup Node, it is recommended to install Vinchin Backup Server first, then to install Backup Node.

Vinchin Backup Server Installation

Here take Dell PowerEdge R620 for example, let's see how to install Vinchin Backup Server on physical machine with iDRAC.

Preparations before Starting the Installation.

- 1. Log in iDRAC with administrative information.

2. Launch the Virtual Console.

Integra Acces	ated Dell Remote Enterprise s Controller 7	Support About Logout
System PowerEdge R620 root , Admin Overview - Server L Lons	Properties Attached Media vFlash Service Module Summary Details System Inventory System Summary	Job Queue
Power / Thermal Virtual Console Alerts Setup Troubleshooting Licenses Intrusion iDRAC Settings Hardware Storage Host OS	Server Health Batteries Fans Intrusion Power Supplies Removable Flash Media Temperatures Voltages	Virtual Console Preview Settings Refresh Launch
	Server Information Power State ON System Model PowerEdge R620 System Revision I System Host Name WIN-64VF3PSPEG9 Operating System Operating System	Quick Launch Tasks Power ON / OFF Power Cycle System (cold boot) System ID LED ON/OFF View Logs Update and Rollback

3. Select Virtual Media > Map CD/DVD.

🕌 idrac-8GDZ862, PowerEdge R620, User: root, 5.0 fps								
File	View	Macros	Tools	Power	Next Boot	Virtual Media	Help	
						Create Ima	ige	
CentOX Kerne	CentOS Linux 7 (Core) Kernel 3.10.0-1062.e17.x86_64 on an x86_64 Disconnect Virtual Media							
Vinch	in logi	n:				Map CD/DV	/D	
						Map Remo	vable Disk	

🕌 Open		×
Look <u>i</u> n:	3.5.0	
vinchin_en	terprise_en-6.5.0.15158.iso	
File <u>N</u> ame:	vinchin_enterprise_en-6.5.0.15158.iso	
Files of <u>T</u> ype:	Disk iso file (*.iso)	Open Cancel

Open and select the Vinchin Backup Server ISO image.

Click Map Device.

실 Virtual Media - Map	CD/DVD	×
Drive/Image File:	enterprise_en-6.5.0.15158.iso 🔻	Browse
	✓ Read-only	
	Map Device	Cancel

4. Click Next boot > Virtual CD/DVD/ISO.



5. Click Power > Reset system (warm boot).



Click Yes.

Power C	ontrol ×
	You are about to execute a server control action. Are you sure you want to continue?
	Yes No

Vinchin Backup Server Installation Wizard

1. After restart the server, here we are in Vinchin Backup Server installation process. Please choose **Install CentOS 7** and press **Enter**.



2. On the **INSTALLATION SUMMARY** screen, a few settings need to be completed. Please select **Date & time** to set the system time zone.

INSTALLATION SUI	MMARY				
r	LOCALIZA	TION			
	Θ	DATE & TIME Asia/Shanghai timezone		#	KEYBOARD English (US)
	á	LANGUAGE SUPPORT English (United States)			
	SOFTWAR	E			
	0	INSTALLATION SOURCE		4	SOFTWARE SELECTION Custom software selected
	SYSTEM				
	9	INSTALLATION DESTINATION No disks selected		Q	KDUMP Kdump is enabled
	÷	NETWORK & HOST NAME Not connected	-		SECURITY POLICY No profile selected



Select the Time Zone where you are located in and click Done.

3. Click on **INSTALLATION DESTINATION** to select the system disk for installation.



Here we select the **OS disk** and choose the default partitioning strategy, then click **Done** to continue.

	R AND	CENTOS 7 INSTALLATION জা us Heipi
Device Selection Select the device(s) you'd lik Local Standard Disks	e to install to. They will be left untouched until you click on the	e main menu's "Begin Installation" button.
465.76 GIB ATA ST9500620NS sda / 1016.5 KIB free	931.32 GIB 2010 ATA ST91000640NS sdb / 1314.5 KIB free	
Specialized & Network Disks		Disks left unselected here will not be touched.
Add a disk Other Storage Options Partitioning Automatically configure partitit Vould like to make additional Encryption Percent my data You'll set a o	oning. O I will configure partitioning.	Disk: left unselected here will not be touched.
Encipe ing one room set a pe	agan ander maa.	
Full disk summary and boot loader		1 disk selected: 465.76 GiB capacity: 1016.5 KiB free <u>Befresh.</u>

Note

If you have more than one disk, please make sure that only one target disk is selected as system disk (the others used as data disk and the system disk CAN'T be used as data disk).

4. Click **NETWORK & HOST NAME** to configure network settings.

INSTALLATION SUMMA	RY			
LC	OCALIZAT	ION		
	Θ	DATE & TIME Asia/Shanghai timezone		KEYBOARD English (US)
	á	LANGUAGE SUPPORT English (United States)		
S	OFTWARE	E		
	0	INSTALLATION SOURCE Local media	4	SOFTWARE SELECTION Custom software selected
S	YSTEM			
_	?	INSTALLATION DESTINATION Automatic partitioning selected		KDUMP Kdump is enabled
	÷	NETWORK & HOST NAME Not connected		SECURITY POLICY No profile selected

Set **Host name**, e.g., *vinchin.com* for Vinchin Backup Server, then click **Apply**. To set the network profiles, click on **Configure...**



Click on IPv4 Settings tab to configure the network profiles.

Method: Manual (it's recommended to configure a static IP address to the Backup Server). Then click on **Add** to manually configure the network profiles. And in the **DNS servers** field, insert a valid DNS server IP.

When done, click on Save.

		E	diting em1		
Connection name:	ml				
General Ethe	met 802	2.1X Security	DCB Pr	oxy IPv4 Sett	ings IPv6 Settings
Method: Manual					•
Addresses					
Address		Netmask		Gateway	Add
192.168.64.74		255.255.192.0		192.168.64.1	
					Delete
DNS servers:	8.8.8.8				
Search domains:					
DHCP client ID:					
Require IPv4 ac	ddressing for	this connection t	o complete		
					Routes
					Cancel Save

Enable the network adapter and then click **Done**.



5. Now simply click on **Begin Installation** to start the installation process.

INSTALLATION SUMMARY				CE	NTOS 7 INST	ALLATION
LOCALIZAT	TION					
O	DATE & TIME Asia/Shanghai timezone	Ħ	KEYBOARD English (US)			
á	LANGUAGE SUPPORT English (United States)					
SOFTWAR	E					
0	INSTALLATION SOURCE	4	SOFTWARE SELECTION Custom software selected			
SYSTEM						
S	INSTALLATION DESTINATION Automatic partitioning selected	Q	KDUMP Kdump is enabled			
¢	NETWORK & HOST NAME Wired (em1) connected		SECURITY POLICY No profile selected			
				Quit We won't touch your disks u	ntil you click Ber	Installation

Note

It will take several minutes to complete the installation process, please do not power off or restart the server.

6. When the installation is completed, please remove the USB drive or DVD, or disconnect virtual media, then click on **Reboot**.

CONFIGURATION		CENTOS 7 INSTALLATION
USER SETTINGS		
ROOT PASSWORD Root password is set	USER CREATION No user will be created	
	k	
Completel		
	CentOS is now successfully installed and ready fr Go ahead and reboot to	r you to use! start using it! Reboot

After rebooting, the whole installation process is completed.

Note

It will take several minutes to complete rebooting, because Vinchin software will be installed during the first reboot. Please don't power off or restart the server, otherwise the installation of Vinchin software will fail.

Vinchin Backup Node Installation (Optional)

If there are more than 200 virtual machines, or the amount of production data is more than 50TB. You can consider deploying Vinchin Backup Node to share the workload with Backup Server.

The installation of Vinchin Backup Node is quite similar to Vinchin Backup Server installation. Please refer to the <u>Vinchin Backup Server Installation</u> section to install your Vinchin Backup Node. Please use a new IP address and host name during the Backup Node installation.

After installation, the Backup Node needs to be restarted. When you see the command line login prompt. Please log in the command line interface using the below credentials:

```
Username: root
```

Password: Backup@3R

CentOS Linux 7 (Core) Kernel 3.10.0-1062.el7.x86_64 on an x86_64

vinchin650 login: root Password: Last login: Tue Nov 16 15:59:05 from 192.168.129.188 ErootQvinchin650 ~]#

Then please configure the Backup Node to be connected to the Backup Server with below command:

config_server

```
[root@vinchin650 ~]# config_server
Current server ip is: 0.0.0,0, Please input new server ip: 192.168.64.74
Need to reboot system now [Y/n]?Y
```

Then type in the IP address of the Backup Server and press Enter.

Now the Backup Node needs to be restarted, please type Y and then press Enter.

After rebooting, Vinchin Backup Node will be successfully connected to Vinchin Backup Server. And by now, the Backup Node had been successfully deployed, no further settings need to be done from the Backup Node side, as it will be managed by the Backup Server from now on.

Virtual Machine Installation

Vinchin Backup Server and Backup Node Installation

To install Vinchin Backup Server or Backup Node on the hypervisor as virtual machines, please refer to the <u>System Requirements</u> section for virtual machine configurations of both Vinchin Backup Server and Vinchin Backup Node.

If your Vinchin backup server is installed as a VM, it's not recommended to install a Vinchin backup node VM to expand the backup infrastructure. You can choose to upgrade the backup server VM configurations, or to install backup node on a physical machine to expand the backup infrastructure. Installing Backup node as virtual machine can only be used for evaluation.

Creating a new virtual machine on the hypervisor. The guest OS of new virtual machine should be Linux, and the version should be CentOS 7.

And the virtual CD/DVD drive should be configured to point directly to the Vinchin Backup Server or Backup Node ISO image file.

For the detailed installation process instructions of Vinchin Backup Server, please refer to <u>Vinchin</u> <u>Backup Server Installation</u>. For the detailed installation process of Vinchin Backup Node, please refer to the <u>Vinchin Backup Node Installation</u>.

Vinchin Backup Proxy Installation (Optional)

Vinchin Backup Proxy is dedicated for <u>VMware vSphere</u> virtual infrastructure without a storage area network. It needs to be installed on the vSphere ESX/ESXi server as a virtual machine. If you are using other hypervisors, please DO NOT install Backup Proxy. There's no need to deploy the Vinchin Backup Proxy if you install Vinchin Backup Server on VM.

Before installing Vinchin Backup Proxy, please review the requirements.

And the virtual CD/DVD drive should be configured to point directly to the Vinchin Backup Proxy ISO image file.

The installation process of Vinchin Backup Proxy is quite similar to Vinchin Backup Server installation. Please refer to the <u>Vinchin Backup Server Installation</u> section to install your Vinchin Backup Proxy.

Basic Settings

Web Console Login

Only Vinchin Backup Server has management web console. Both Vinchin Backup Node and Backup Proxy have no web console, they will be managed by Vinchin Backup Server.

Use your web browser (Google Chrome is recommended) to open Vinchin Backup Server web console by using the IP address that you have configured during the installation.

Vinchin Backup & Recovery × +	0	-	σ	×
← → C A Not secure https://192.168.64.74/login.php		台		:
vinchin				
v in rectinin				
Vinchin Backup & Recovery				
🏯 admin				
Remember password				
Download Backup Plugin				
Login (e)				
Forgot password?				
password.				
Copyright © 2021 Vinchin Technology Co., Ltd. All Rights Reserved				

Use the default credentials to log in. Default username: **admin** Default password: **123456**

Change Admin Password

After you have logged in to the Vinchin Backup Server web console, we recommend you to modify the admin password at first priority for backup server safety.

Click on **admin > Change Password** to change the default password.

E E	Ĵ	Ģ	$\underline{\Omega}$ admin $ \sim $
Change Password	ይ	My Inform	ation
Change Password	SMP.	Change P	assword
Old password *	Ð	Lock Scre	en
New password *	업	About	
Confirm new password *	¢	Logout	
Cancel OK			

The suggested new password should be at least 6 characters, and should consist of uppercase and lowercase letters and numerals. And please remember your new password carefully.

Add Backup Proxy to Vinchin Backup Server

If you have installed Vinchin Backup Proxy, to associate the Backup Proxy with Backup Server, please go to VM Backup > Backup Proxy screen.

Click on Add to add the Backup Proxy.

Pro	xy Manag	gemen	t							
E	Backup	o Prox	ку							
I	+ Add	🕼 Edit	Delete							
		D.	Name	IP Address	Port	Status	•	Create Time	By User	
					No availabl	e data				

Simply input the IP address of the Backup Proxy in the IP/Domain field.

Give it a name for identification in the Name field.

The port number should not be changed.

Click on **OK** to add the Vinchin Backup Proxy to the Vinchin Backup Server.

Add Backup Proxy		
IP Address *	192.168.1.110	
	IP address of Vinchin Backup Proxy	
Name		
	Customized name for identification	
Port *	22790	
	Vinchin Backup Server and Backup Proxy communication port	

License

Before you start testing Vinchin Backup & Recovery products, please upload the trial license we sent you by email after you have registered to download Vinchin Backup Server installation ISO image. It is a 60-day full featured trial license key.

To upload a license key, please go to **System > System License** page.

Click on **Upload License** to browse the free trial license, and then upload it to activate Vinchin Backup Server for a 60-day evaluation.

Username :		Download Thumbprint Device The Devi
Edition:		
License:	Unlicensed	O Notice:
Expiration:		Please read the following notices to get your Vinchin backup server licensed and to
		maintain the license valid.
		1. A trial license will be sent to your mailbox right after you have registered to
		download Vinchin software from Vinchin website, if you didn't get the trial license
		please download and send the server thumbprint to Vinchin support team to get
		one.
		2. To maintain your trial license valid during the trial period, please do not modify
		system time and do not modify server hardware (e.g. add or remove server NICs),
		if you have to do so, please contact Vinchin support team for advice.
		3. To maintain your paid license valid, please do not modify server hardware (e.g.
		add or remove server NICs), if you have to do so, please contact Vinchin support
		team for advice.
		4. If you got license exception. For trial license, please download and send new
		thumborint to Vinship support toors. For paid license, places contact your Vinship

If you wish to buy perpetual license for Vinchin Backup & Recovery, please contact our sales team. Please find our contact information on the last page on this document.

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