

## JoinVDI Virtualization Manger Installation Guide

Standalone server version

REV12: 21.08.30

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## 1. Prerequisites

### 1.1 Hardware requirements

Hardware	Description
A Server	Install and run the JoinVDI
	Configuration requirements:
	CPU: At least a quad core x86_64
	Memory: At least 16GB
	Storage: At least 50GB
	Network Interface: At least 1 Gbps NIC
A U disk	A bootable U disk to install the JoinVDI
A Windows computer	Assist in installation and manage the JoinVDI

### 1.2 Windows softwares

Software	Description
Quick Installation Tool	Auxiliary the installation of JoinVDI
virt-viewer	Access the VM console to manage
Rufus	Write the ISO disk image to a U disk
Hash	Verify MD5 code of ISO file
Chrome browser	Access the JoinVDI platform

• Please install the softwares on the Windows computer in advance.

### 1.3 Installers

Installer	Description
JoinVDI.iso	JoinVDI Virtualization Manger Installation ISO
MD5.txt	MD5 code for verifying the JoinVDI.iso
JoinVDI guest tools.zip	The functional plug-in installed in the VMs.
Virspire.exe	The desktop agent installed in the VMs
Windows ISO	The system image of the VMs(example:
	Windows 10 X64 LTSC)

### 1.4 Server network environment

- Prepare a local area network, it is recommended to use DHCP to assign IP.
- The server and the Windows computer are connected to the same network segment.
- Divide 2~3 available IPs in advance, and confirm the IP assigned to the server. The server IP is long-term exclusive.

### 1.5 Configure BIOS settings on the server

• All CPUs must have support for the Intel<sup>®</sup> 64 or AMD64 CPU extensions, and the Intel VT<sup>®</sup> or AMD-V<sup>™</sup> hardware virtualization extensions enabled.

Setting example of Intel platform:

1) Enabled Intel(R) Virtualization Technology

Aptio Setup Utility - Cop Processor Configuration	right (C) 2010,	- 2013 Amer	ican Megatrends, Inc.
Processor Configuration Processor Socket Processor ID Processor Frequency Microcode Revision L1 Cache RAM L2 Cache RAM L3 Cache RAM Processor 1 Version	CPU 1 206d7*1 2.600 GHz 1 710 1 64 KB 1 256 KB 1 20480 KB 1 Intel (R) Xeon	CPU 2 206d7 2.600 GHz 710 64 KB 256 KB 20480 KB (R) CPU	Intel(R) Virtualization Technology allows a platform to run wultiple operating systems and applications in independent partitions. Note: A change to this option requires the system to be powered off and then back on before the setting takes
Processor 2 Version Intel (R) OPI Lin Intel (R) OPI Lin Intel (R) OPI Frequency Intel (R) OPI Frequency Select Intel (R) Unb Boost Technology Enhanced Intel SpeedStep (R) Tech Processor C3 Processor C3 Intel (R) Hyper-Threading Tech Active Processor Cores Execute Disable Bit Intel (R) Urtualization Technology Intel (R) UT for Directed I/0	(R) Uirtua lizat IAuto Maxi IEnabledi IEnabledi IDisabledi IEnabledi IEnabledi IEnabledi IEnabledi IEnabledi	ion Technolo	ect Screen ect Item Enter: Select */-: Change Opt. F1: General Help F9: Setup Defaults F10: Save ESC: Exit

### 2) Enabled Intel(R) VT for Directed I/O

Aptio Setup Utility - Copy Processor Configuration	right (C) 2010	- 2013 Amer	ican Megatrends, Inc.
Processor Configuration Processor Socket Processor ID Processor Frequency Microcode Rev ision L1 Cache RAM L2 Cache RAM L3 Cache RAM Processor 1 Version	CPU 1 206d7*1 2.600 GHz 1 710 1 64 KB 1 256 KB 1 20480 KB 1 Intel(R) Xeon E5-2670 0 2 2	CPU 2 206d7 2.600 GHz 710 64 KB 256 KB 20480 KB (R) CPU .60GHz	<ul> <li>Enable/Disable Intel(R)</li> <li>Virtualization Technology for Directed I/O (Intel (R) VT-d).</li> <li>Report the I/O device assignment to UMM through DMAR ACPI Tables.</li> </ul>
Processor 2 Version Current Intel(R) QPI Link 3 Intel(R) QPI Link Frequency Intel(R) QPI Frequency Select Intel(R) Turbo Boost Technology Enhanced Intel SpeedStep(R) Tech Processor C3 Processor C6 Intel(R) Hyper-Threading Tech Active Processor Cores Execute Disable Bit Intel(R) Virtualization Technology Intel(R) VI for Directed I/O	I Guto Maxl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl IEnabledl	irected I/O	Select Screen Select Item Enter: Select */-: Change Opt. F1: General Help F9: Setup Defaults F10: Save ESC: Exit
Version 2.14.1219. Copyr	ight (C) 2010	- 2013 Ameri	can Megatrends, Inc.

- 3) Verifying BIOS system time
- 4) Disabled Power SavingsDisable Processor C3Disable Processor C6

## 2. Install JoinVDI system on the Server

• JoinVDI needs to be installed on the <u>physical machine</u>. Installing it in a virtual machine may be abnormal during the installation process or when using the platform!

### 2.1 Verify the JoinVDI image

Run the Hash on the Windows computer, drag the JoinVDI image file into the Hash box, and calculate the MD5 value of the JoinVDI image files.

• If the calculated MD5 value is not the same as the MD5 value we provide, it means that the file has been damaged. Please obtain the image file again.

File: E:\JoinVD Size: 22! MD5: 401	I.iso 16 bytes	9CF/	Α	 1
		A 1999		
¢				>

### 2.2 Create a startup USB Flash Drive

- The example is the step of burning with the Rufus-3.8
- 1) Run the **Rufus-3.8** after Attach the U disk to the Windows computer
- 2) Select the U disk
- 3) Select the JoinVDI image file
- 4) Click **START** to create. Click **OK** to permit DATA DESTROYED.

💉 Rufus 3.8.1580	– 🗆 🗙	
Drive Properties	V SELECT 0 (No persistence) system r UEFI V	
Volume label JoinVDI File system Cluster FAT32 (Default) V 8192 bj	size ytes (Default) ~	ufus
✓ Show advanced format options           Status		WARNING: ALL DATA ON DEVICE 'JoinVDI (G:) [16 GB]' WILL BE DESTROYED. To continue with this operation, click OK. To quit click CANCEL.
🔇 🕦 🌫 🔳 🤔 🛐 ST	ART CLOSE	OK Cancel

### 2.3 Install JoinVDI system

1) Attach the U disk to the server. Start the server and booting from the bootable U disk. From the boot menu, select **Custom install...** and Press **Enter**.



#### 2) Configure NETWORK & HOSTNAME



#### 3) Configure Network

• Only one of them can be enabled When there are multiple networks.



#### • Set a static IP as the server IP.

		E	diting eth	D			
onnection name:	eth0						
General Eth	ernet	802.1X Security	DCB	Proxy	IPv4 Settings	IPv6	Settings
Method: Manual	+						•
Addresses			_				
Address		Netmask		Gate	way		Add
192.168.1.13		255.255.255.0		192.1	68.1.1		Delete
DNS servers: Search domains:	192.168	.1.1					
DHCP client ID:							
Require IPv4	addressing	for this connection	to complet	ie	10		
							Routes
					Ca	incel	Save

- 4) Configure Host name
- It is recommended to follow the naming rules: aaa.bbb.com e.g.: host1.domain.com

NETWORK & HOST NAME			🖽 us	Help!
Ett ernet (eth0) Red N. Inc. Virtio network device         Ethernet (eth1)         Red Hat, In: Virtio network device	Hardware Address Speed IP Address Subnet Mask Default Route DNS	Ethernet (eth0) Connected 56:6F:66:BE:00:0B 192.168.1.13 255.255.255.0 192.168.1.1 192.168.1.1		ON
Host name: host1.domain.com Apply			Current host name:	host1.domain.com

#### 5) Configure DATE & TIME



- Select a time zone according to where the server is used e.g. Americas/New York
- Incorrect time zone setting may cause abnormal during the installation process or when using the platform. Check again the time zone before click **Begin** installation



#### 6) Configure INSTALLATION DESTINATION



• Select the device on which to install JoinVDI and use the **Automatically** configure partitioning option, click Done



• If there is data in the selected disk, click **Reclaim space**, **Delete all** and **Reclaim space** 

Cancel & add more disks	Reclaim space
Preserve Delete Shrink 1 disk; 50 GiB reclaimable space (in file systems)	Delete all Total selected space to reclaim: <b>0</b> Installation requires a total of <b>1591.55 MiB</b> for system data.

#### 7) Click Begin Installation



#### 8) Configure ROOT PASSWORD

• The root password can be set to **admin@jvvm** 



- 9) After the installation is completed, reboot the server
- Disconnected the U disk before **Reboot** to avoid rebooting to the U disk.



## 3. Install JoinVDI Node

- 1) Windows computer and server connect to the same network
- 2) Run the **Quick Installation Tool**
- 3) Enter the Host IP (Server IP) and Host password (root password), Click **Install** to start installation.
- The lastest **admin password** is the default password of JoinVDI admin manager.

🕖 Quick Installation Tool		÷—	×
Host IP :	192.168.1.13		
SSH port :	22		
Host user :	root		
Host password :	•••••		
admin password :	admin@jvvm		
	Install		

### 4) Select Standalone server → Continue

Marka she dalara as iba assurb	
local resources.	e server with a web console for managing the
Controller within a server cluster	
Serves as the main controller with resources within a server cluster.	h a web console to manage virtualzation
Host within a server cluster	
Se ves as a compute and storage	e node within a server cluster.
+	
Continue	Quit

5) When prompt **Installation Finished!** in the Quick Installation Tool window, the installation is complete.



## 4. Configure JoinVDI Platform

### 4.1 Connecting to the Administration Portal

1) Run the Chrome in Windows computer and navigate to **https://server IP**. Click **Advanced** and **Proceed to the site** 

O Privacy error X	+	•	- 0	×
← → C ③ 192.168.1.13			* =	:
	•			
	Your connection is not private			
	four connection is not private			
	Attackers might be trying to steal your information from <b>192.168.1.13</b> (for example,			
	passwords, messages, or creuic cards). <u>Lean more</u>			
	NEISERK_CERT_AUTHORITY_INVALID			
	Q to get Chrome's highest level of security, <u>turn on enhanced protection</u>			
	Advanced Back to safety			

This server could not prove that it is **192.168.1.13**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.
Proceed to 192.168.1.13 (unsafe)

#### 2) Click Administration Portal



3) Use the user name **admin** along with the password **admin@jvvm**, click **Log In** 



### 4.2 Configure the data center

#### 1) Click **Compute** $\rightarrow$ **Data Centers** on the left



#### 2) Click Edit

	Name	comment	Storage type	Status	compatibility version	Des	cript	aon
	Name	Comment	Storage Type	Status	Compatibility Version	Des	cript	ion
0 ~							1	-1 <>
					New	Edit	Rei	move
lataCen	iter:					×		~ Q

### 3) Change **storage type** to **Local**, and click **OK**

Name	Default	
Description	The default Data Cen	iter
Storage Type	Local	×
Compatibility Version	4.3	×
Quota Mode	Disabled	×
Comment		

### 4.3 Add a host

1) Click **Compute**  $\rightarrow$  **Hosts** on the left



#### 2) Click New

HOST:	~				×	合 ~	(
		New Ed	it Remove Manag	ement ~ Installation ~	Hos	t Cons	ole
<b>2</b> ~						0 - 0	<

3) Enter a host name in the **Name** field, <u>Host Name</u> set when installing system in the **Hostname** field, and root password in the **Password** filed, click **OK** 

New Host			
General	>	Host Cluster	Default ~
Power Management		Ura Foreman/Satellite	Data Center: Default
SPM	_	- Ose Foremany Satemite	0
Console and GPU		Name	host1
Network Provider		Hostname ()	2 host1.domain.com
Kernel		SSH Port	22
Affinity <mark>L</mark> abels	1	Activate host after install	
		Authentication User Name	root
		Password	•••
		SSH Public Key	
		Advanced Parameters	
			OK Cance

4) Ignore the power management configuration prompt and click **OK** to start installation.



5) View the progress of the installation in the **Events** 



6) The installation is successful if there are no any errors except the notification of Power Management configuration and prompt **Host xxx installed** 

1	Host host1 was added by admin@internal-authz.
18	Failed to verify Power Management configuration for Host host1.
<ul> <li>Image: A second s</li></ul>	Data Center Default was updated by admin@internal-authz
4	Status of host host1 was set to Up.
1	Host cluster Default was updated by system
×	Host host1 installed
1	Network changes were saved on host host1

#### 7) Click **Compute** $\rightarrow$ Hosts



8) Click Management  $\rightarrow$  Maintenance, the host turn to maintenance mode

Host:									×		C
			New	Edit	Remove	Management ~	Install	ation ~	Hos	t Cons	ole
~						Maintenance					E.
0 ~						Activate				1-1	<
	Name	Comment	Hostname/IP		Cluster	Refresh Capabiliti	es	er		Stat	us
	201 - 101			12.21	1.1					1.	

9) Click Management  $\rightarrow$  Restart  $\rightarrow$  OK to restart the host



10) Log into the administration portal after reboot, to active the host (Click Management → Activate / Management → Maintenance → Activate)

Host:										×	\$	Q	
				New	Edit	Remove	Management ~	Instal	llation ~	Host	Cons	ole	:
<b>c</b> ~							Maintenance Activate				1 - 1	<	>
	Name	Comment	Hostnan	ne/IP		Cluster	Refresh Capabiliti	ies	er		Stat	us	
81	host1		host1.do	main.co	om	Default	POWER MANAGEM	ENT			Mair	ntenar	no
1							Restart	LINI					

### 4.4 Add the storage domain

#### 1) Click Storage $\rightarrow$ Domains on the left



#### 2) Click New Domain

	ovirt-image-repository		Image	OpenStack Glance	V1		Jnattached
Status	Domain Name	Comment	Domain Type	Storage Type	Format	1	Cross Data (
<b>C</b> ~							1-1 <>
				New Domain Import Do	main Manage Doma	ain F	emove
Storage:						×	~ Q

3) Change the Domain Function to Data, Change the Storage Type to Local on Host, enter the Path to be used for the storage domain (/home/storage/local/data), enter a name, e.g. data\_domain → OK

ew Domain			•
Data Center	Default (Local)	<ul> <li>Name</li> </ul>	data_domain
Domain Function	Data	<ul> <li>Description</li> </ul>	
Storage Type	Local on Host	~ Comment	
Host 0	host1	~	
Path	3 /home/storage/local/data	5	

#### 4) Click **New Domain** again after the first storage domain turn into green.

Storage:						×	☆ ~	Q
				New Domain Import Do	omain Manage Dor	nain	Remo	ve
<b>C</b> ~							1 - 2	< >
							Variation	
Status	Domain Name	Comment	Domain Type	Storage Type	Format		Cross	s Data
Status	Domain Name data_domain	Comment	Domain Type Data (Master)	Storage Type Local on Host	Format V5		Cros: Activ	s Data

5) Change the **Domain Function** to **ISO**, Change the **Storage Type** to **Local on Host**, enter the **Path** to be used for the storage domain (<u>/home/storage/local/iso</u>), enter a name, e.g. **iso\_domain**  $\rightarrow$  **OK**.

lew Domain						×
Data Center	Default (Local)	~	Name	4	iso_domain	
Domain Function	ISO	~	Description			
Storage Type	Local on Host	~	Comment			
Host ()	host1	~				
Path 3	/home/storage/local/iso					
Advanced Parameters						

6) The **Status** of **data\_domain** and **iso\_domian** in the list are both green, means the basic storage domain is created completely.

Storage:						×	습 ~ Q
				New Domain	Import Domain	Manage Domain	Remove
2 v							1-3 <>
Status	Domain Name	Comment	Domain Type	Storage Typ	e For	mat	Cross Data Cer
senens							
<b>A</b>	data_domain		Data (Master)	Local on Ho	st V5		Active
	data_domain iso_domain		Data (Master)	Local on Ho Local on Ho	st V5 st V1		Active Active

- <u>/home/storage/local/data</u> and <u>/home/storage/local/iso</u> are the preset path, and the path must be entered correctly.
- If you need to add a new hard disk as storage domain, please refer to Appendixes 6.2 Add a hard disk to server.

## 5. Create Virtual Machines

### 5.1 Create virtual machines

### 5.1.1 Upload Windows system ISO image

- 1) Navigate to https://[Host IP]:8080, e.g. https://192.168.1.13:8080
- 2) The first time to visit it, ISO image page need to be refreshed.

≡ 🤔 JoinVDI Wor	kspace	S Failure				≣ ≪
🖺 ISO Image	/ ISO Image			U Warnin ISO ima refresh	<b>ng</b> age pag <mark>e i</mark> s unava	× ailable. Please
SVM Environment	Disk(Used) 0B/0B		0.0%	2 Refresh	🛍 Delete	1 Upload

3) Click **Upload**. Upload the Windows system ISO. Please upload the Microsoft original image.

)isk(l	Jsed) 7.41GB/43.97GB	16.9%	2 Refresh	🛍 Delete	🏦 Upload
	File Name ≑	Size ≑			
	toolsSetup.iso	392.77MB			

4) Wait for upload completed.

≡ 🚑 JoinVDI W	orkspace	«
		File Upload
ISO Image	/ ISO Image	en_windows_1 4.0 GB 1% 8.4 MB / s 8 II ×

### 5.1.2 Create a virtual machine

#### 1) Click Compute → Virtual Machines



#### 2) Click New. This opens the New Virtual Machine window

ns:													× ☆	~	Q
New	Edit	Remove	▶ Run	~ ©	Suspend	Shutdown	1 -	C Reboot	Console	~	Migrate	Crea	te Sna	apsho	t
~													(	) - 0	< >

#### 3) Click "Show Advanced Options".

eneral	>				
		Cluster		Default	v
onsole				Data Center: Default	
		Template		Blank   (0)	~
		Operating System		Other OS	~
		Instance Type	63	Custom	
		Optimized for		Desktop	
		Name		1	
		Description			
		Comment			
		VM ID			
		□ Stateless □ Start in Pause Mode □	Delete Prote	ection	
		Instance Images			
				Attach	Create + -
		Instantiate VM network interfaces by pickin	g a vNIC profi	le.	
		nic1 Please select an item	*		+ -
	/				

 4) Select an Operating System from the drop-down list, e.g. Windows 10 x64 Enter a Name for the virtual machine, e.g., Win10 Add a network interface from the nic1 drop-down list; Create a virtual disk.

New Virtual Machine		×
General >	Cluster	Default
System		Data Center: Default
Initial Run	Template	Blank   (0) v
Console	Operating System	Windows 10 x64 v
	Instance Type 📀	Custom Y
Host	Optimized for	Desktop 🗸
High Availability	Name	Win10
Resource Allocation	Description	
Boot Options	Comment	
Random Generator	VM ID	
Custom Properties	Stateless Start in Pause Mode Delete Prote	ction 4
Icon	instance images	Attach Create + -
Foreman/Satellite	Instantiate VM network interfaces by picking a vNIC profile	
Affinity Labels	nic1 ovirtmgmt/ovirtmgmt v	+ -
Hide Advanced Options		OK Cancel

5) Create the first disk as a **Bootable** disk. Enter a **Size(GB)** according to actual needs. E.g. **20** GB. Select the **storage domain** in which the virtual disk will be stored, click **OK** 

Size (GiB) Size (GiB) Alias Win10_Disk1 Description Interface VirtIO-SCSI Storage Domain Allocation Policy Thin Provision Disk Profile VirtIO-SCSI VIRTIO-SCSI	) Wipe After Delete		
Alias Win10_Disk1 Shareable Description Read-Only Interface VirtIO-SCSI Storage Domain Allocation Policy Thin Provision V Disk Profile data_domain V	DUUUAUNE	20	B) 1 -
Description   Interface   VirtIO-SCSI   Storage Domain   data_domain (32 GiB free of 43 GiB)   Allocation Policy   Thin Provision   Disk Profile	Shareable	Win10_Disk1	
Interface VirtIO-SCSI ~ Storage Domain data_domain (32 GiB free of 43 GiB) ~ Allocation Policy Thin Provision ~ Disk Profile data_domain ~	Read-Only		otion
Storage Domain       Image: Comparison of the state of t	j Enable Discard	VirtIO-SCSI	ce
Allocation Policy Thin Provision		data_domain (32 GiB free of 43 GiB)	e Domain
Disk Profile data_domain v		Thin Provision	on Policy
		data_domain	ofile

6) Click System, specify the virtual machine's Memory Size, e.g. 4096 MB
 Specify the virtual machine's Total Virtual vCPUs, e.g., 4.
 Select your local time zone in Hardware Clock Time Offset, e.g. (GMT-05:00) US
 Eastern Standard Time

New Virtual Machine			3	×
General	Cluster		Default ~	1
System >			Data Center: Default	-
Initial Run	Template		Blank   (0) ~	
Console	Operating System		Windows 10 x64 v	
	Instance Type	63	Custom Y	
Host	Optimized for		Desktop ~	
High Availability	Memory Size	83	4096 MB	]
Resource Allocation	Maximum memory 🟮	63	16384 MB	
Boot Options	Physical Memory Guaranteed 🟮	63	4096 MB	
Random Generator	Total Virtual CPUs () Advanced Parameters	83	4	]
Custom Properties	General Hardware Clock Time Offset 🚯	-	(GMT-05:00) US Eastern Standard Time V	
Icon	Provide custom serial number policy ()			
Foreman/Satellite				
Affinity Labels				
Hide Advanced Options			ОК Сапсе	:1

### 7) Click Console, Enabled the USB Support, check Soundcard enabled

			t		
ystem			Data Center: Defoult		
nitial Run	Template		Blank   (0)	~	
ansola	Operating System		Windows 10 x64	~	
onsole	Instance Type	63	Custom	~	
lost	Optimized for		Desktop	~	]
ligh Availability	Graphical Console:				
esource Allocation	Headless Mode 🚯				
	Video Type		QXL	~	
oot Options	Graphics protocol		SPICE + VNC	~	
andom Generator	VNC Keyboard Layout	0	default [en-us]	~	
ustom Properties	USB Support		Enabled	~	
con	Console Disconnect Action		Lock screen	~	
	Monitors		1 v Single PCI		
oreman/Satellite	Smartcard Enabled				
ffinity Labels	Single Sign On method				
	Use Guest Agent				
	Advanced Parameters				

#### 8) Click **OK** to create a new virtual machine

Hide Advanced Op	ions		ок	Cancel

IS:										×	☆ ~	Q
New	Edit Remove	►Run ~ C	Suspend	Shutdown	~ C' R	eboot	Console	~	Migrate	Create	Snapsh	ot
~											1 - 1	<
· ·	Name	Comment	Host	IP A	ddresses	FQ	DN		Cluster		1 - 1 Data	Cente

### 5.1.3 Install OS

1) Select the virtual machine, click  $Run \rightarrow Run$  once

Marine	Ealla	Demanus	D.u.		Cummend	E Churchelaurer	C Pakast	Generale	Alimente	C 5	
TVCVV	Luit	Kennove	P Run		Juspenu	Shucown	C REDOUL	- console	wiigrace	create shi	apsnot
3 ~			Run Or	nce							1-1 <

2) Expand the Boot Options menu, select the Attach CD check box, and select a Windows ISO from the drop-down list → uncheck Enable menu to select boot device → Click OK, the virtual machine will boot up immediately.

Run Virtual Machine(s)		>
Boot Options		
Attach Floppy	[sysprep] v	
Attach CD 🧠	en_windows_10_enterprise_ltsc_2019_ V	
Enable menu to select boot device           Start in Pause Mode           Predefined Boot Sequence:		
Hard Disk CD-ROM Network (PXE)	Down	
Run Stateless		
+ Initial Run		
+Host		
+ Console		
+ Custom Properties		
Rollback this configuration during reboots 🜖		
	OK Cano	cel

- 3) Select the virtual machine, click the **Console**, and a file name **console.vv** will be downloaded. Click to open the screen of the virtual machine console
- Windows computer need to install **virt-viewer** in advance.

≡	🛞 JoinVDI · V	/irtual	ization Man	ager					1	♥ ♥ ■●	<b>≜</b> <sup>2</sup> 0 × <b>±</b> ×
æ	Dashboard		Compute »	Virtual Machines						/	* ↔ ~ 0
	Compute	>	New	Edit Remove I	► Run 🗸 🕓	Suspend	Shutdown ~	C Reboo	t Console	∽ Migrate C	reate Snapshot
蕭	Network	>	<b>2</b> ~	Name	Comment	Host	IP Addr	esses	FQDN	Cluster	1 - 1 < > Data Center
()))	Storage	>		Win10		host1		1		Default	Default >
¢	Administration	>				/					
•	Events										
	console.vv 3.4/3.4 KB		~								Show all X

4) Please follow the common installation process of Windows system to install virtual machines. When prompted to select a drive onto which you want to install Windows. **Press Shift+F12 to release pointer**.

	Win 10:1	צ <sup>א</sup> ≡ _ □ ×
G	<u> W</u> indows Setup	
	Where do you want to install Windows?       Name       Total size       Free space       Type	
	★ Refresh Delete Format ★ New	
4	Load driver     Extend     We couldn't find any drives. To get a storage driver, click Load driver.	Next
1 Collecting information 2	Installing Windows	

### 5) Back to Virtual Machines page and click ∶ → Change CD

ms: win1	0									<b>×</b> ☆ ∨ Q
New	Edit Remove	►Run ~ C	Suspend	Shutdown	~	C Reboot	🖵 Console	~	Migrate	Create Snapshot
<b>3</b> ~										Import
	Name	Comment	Host	IP A	ddre	sses	FQDN		Cluster	Clone VM
									Contraction of the local division of the loc	

#### 6) Change CD to **toolSetup.iso** $\rightarrow$ **OK**

Change CD	,
toolsSetup.iso	÷
	OK Cancel

7) Click the console icon to return to the console.



#### 8) Click Load driver

8 Qi Q	Win10:1	צ <sup>א</sup> ≡ – ם ×
	Windows Setup Where do you want to install Windows?	
	Name Total size Free spac	е Туре
	<ul> <li>▲ Refresh Delete Permat ** New</li> <li>▲ Load driver</li> <li>▲ We couldn't find any drives. To get a storage driver, click Load driver.</li> </ul>	
1 Collecting information	2 Installing Windows	

#### 9) Click Browse

Select the driver to install          Load driver         To install the device driver for your drive, insert the installation media containing the driver files, and then click OK.         Note: The installation media can be a CD, DVD, or USB flash drive.         Image: Browse CK Cancel         Image: Browse Bescan	
1 Collecting information 2 Installing Windows	

- 10) Unfold **CD Drive(D:)**  $\rightarrow$  "virtio  $\rightarrow$  vioscsi  $\rightarrow$  select the driver of the current virtual machine system (e.g., win10 x64)
- The x86 folder for the 32-bit system, and amd64 folder for 64-bit system.



11) Click Next to begin install disk driver

8	s: D	Win10:1	¥,	-	•	×
		🚱 🔬 Windows Setup				
		Select the driver to install	1			
		Red Hat Virtlo SCSI pass-through controller (D\virtio\vioscsi\w10\armd64\vioscsi.inf)				
		☐ Hide drivers that aren't compatible with this computer's hardware.				
		Brgwse Rescan				
1 0	ollecting inform	ition 🥎 Installing Windows				
1		2				

12) After the installation is completed, you can see the drive in the list. **Press** Shift+F12 to release pointer

8 5 0	(Press Sh	Win10:1 hift+F12 to release pointer)		٣	= -	- ×
5						
	🕒 🔏 Windows Setup			<b>X</b>		
	Where do you want to install Wind	dows?				
	Name	Total size	Free space Type			
	Drive 0 Unallocated Space	20.0 GB	20.0 GB			
	Refresh Delete	Eormat	<mark>₩</mark> N <u>e</u> w			
	Windows can't be installed on this drive (Sh	now details)				
	Tundows can't be instance on this drive. (Si	iow details)				
			N	ext		
1 Collecting information	2 Installing Windows					

13) Back to Virtual Machines page and click the  $\Rightarrow$  Change CD

ms: wir	10								× ☆ ~ Q
New	Edit Remove	Run 🗸 🔇	Suspend	Shutdown	~	C Reboot	🖵 Console 🗸 🗸	Migrat	e Create Snapshot
3 ~ 1									Import
	Name	Comment	Host	IP A	ddres	ses	FQDN	Cluster	Clone VM
	and the second second		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					Constant of the	CI

14) Change CD to Windows system ISO image  $\rightarrow$  **OK** 



15) Click the console icon to return to the console.



16) Click **Refresh**  $\rightarrow$  Click **Next**, and then continue to install system

2 <b>1</b>	v	Vin10:1			K.2	Ξ	-	٥	×
G 🗳	Windows Setup				<b>X</b>				
	here do you want to install Windov	vs?							
	Name	Total size	Free space	Туре					
e	Silveo Unallocated space	20.0 08	20.0 GB						
	Refresh Load driver	Eormat	<mark>₩</mark> N <u>e</u> w						
🔺 🛚	indows can't be installed on this drive. (Show	details)							
				Next					
1 Collecting information 2 Insta	lling Windows								

### 5.1.4 Completing system driver

1) After the installation is completed, it will automatically enter the system. **Press** Shift+F12 to release pointer



#### 2) Back to Virtual Machines page and click the $\downarrow \rightarrow$ Change CD.

ms:	win10										× ☆ ~ Q
N	lew	Edit Remov	e 🕨 Run	~ (6	Suspend	Shutdow	n v	C Reboot	Console ~	Migrate	e Create Snapshot
C	~										Import
										Kanada	Clone VM
		Name	Con	nment	Host	1	P Addr	esses	FQDN	Cluster	

### 3) Change CD to **toolsSetup.iso** $\rightarrow$ **OK**



4) Click the console icon to return to the console.



5) Open **CD drive (D:)**, run **ovirt-guest-tools-setup.exe**, install the system drivers

8 Gt D		Win10:1	<i>⊾</i> " ≡	_ = ×
Recycle Bin				
	🔐   🖸 📃 🖛   Manage	CD Drive (D:) oVirt-WGT-4.3-3	– 🗆 X	
	File Home Share View Application Tools		~ ()	
	← → → ↑ 🚔 → This PC → CD Drive (D:) oVirt-WGT-4.3	-3 > V Ö	Search CD Drive (D:) oVirt-WG 🔎	
	Name	Date modified         Type           5/27/2019 5:03 AM         File folde           5/27/2019 5:03 AM         File folde           5/27/2019 5:03 AM         File folde	Size r r	
	Desktop elivitio	5/27/2019 5:03 AM File folde 2/20/2019 4:35 AM Configur 2/20/2019 4:35 AM Configur	er ation sett 1 KB	
Hate-	Downloads     Music     Im OVirtGuestService	2/20/2019 4:55 AM Configur 2/20/2019 4:35 AM Configur 2/20/2019 4:35 AM Applicati	ation sett I KB ation sett I KB on 11,159 KB	
	Pictures     ovirt-guest-tools-setup	5/27/2019 5:03 AM Applicati	on 19,751 KB	
	CD Drive (D:) c  Network  10 items 1 item selected 19.2 MB	6/4/2018 10:38 PM Applicati	on 4,119 KB	
			ጽ <sup>ペ</sup> ^ 🌄 🕬	5

6) Click **Yes/Intsall** by default during the installation process, finally click **Finish** to complete the installation.



### 5.1.5 Install JoinVDI guest tools plug-in

1) Drag the file **Joinvdi\_guest\_tools\_setup.zip** to the console from Windows computer

	Win10:1	× □ - Ξ ×
Recycle Bin Extract		
View Compressed Folder To		
his PC > Downloads		
Name joinvdi_gue		
joinvdi_guest_tools_setup		
	File Transfers X	
	Transferring 1 file	
	Cancel	
35.1 MB		
二 2 二		x <sup>R</sup> ∧ ╦ (1))

2) Unzip the file **Joinvdi\_guest\_tools\_setup.zip**, open the folder and run the program **setup.exe** 



3) If you are running the **setup.exe** on a Windows 7, .NET4.6.1 need to be installed first.

joinvdi_guest_tools Setup	×
For the following components:	
Microsoft .NET Framework 4.6.1 (x86 and x64)	
Please read the following license agreement. Press the page down key to see the of the agreement.	rest
MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS	-
NET FRAMEWORK AND ASSOCIATED LANGUAGE PACKS FOR MICROSOFT WINDOWS OPERATING SYSTEM	
Microsoft Corporation (or based on where you live, one of its affiliates) licenses this supplement to you. If you are licensed to use Microsoft Windows operating system software (the "software") you may use this if	*
View EULA for printing	
Do you accept the terms of the pending License Agreement?	
If you choose Don't Accept, install will close. To install you must accept this agreement.	
Accept Don't Accept	

4) If you have already installed NET4.6.1, you can install **joinvdi\_guest\_tools** directly. Click **Next** by default until installation is complete.



5) Open the **joinvdi\_guest\_tools.exe.config** file by Notepad.





How	do you want to open this file?
e	Internet Explorer
	Notepad
Elook fo	Paint WordPad or another app on this PC
Ah	ways use this upp to open .config files
	ОК

6) Modify the value of the IP address in the text to the IP address of the server  $\rightarrow$  **Save**.



- 7) Copy the modified file joinvdi\_guest\_tools.exe.config to C:\Program Files
   (x86)\JoinVDI\joinvdi\_guest\_tools → select Replace the file in the destination
   → Continue.
- For 32-bit systems, please copy to C:\Program Files\JoinVDI\joinvdi\_guest\_tools



### 5.1.6 Install Virspire Desktop Agent

1) Drag the installation package VirspireInstall.exe into console.



 Run the VirspireInstall.exe and click Install. Click Install when prompt Windows Security during installation. After the installation is complete, click Install Completed to enter the configuration wizard of Virspire.



📰 Windows Security	×
Would you like to install this device software?	
Name: Cloudpoint Human Interface Devices Publisher: Shenzhen Cloudpoint Technology Co.,Ltd	
Always trust software from "Shenzhen Cloudpoint Install	Do <u>n</u> 't Install
You should only install driver software from publishers you trust. How can I decide which c safe to install?	<u>device software is</u>

#### 3) Keep the default **13389** in **Connection Port**, click **Next**.

**Connection Port:** 

13389 (0 - 65535)

#### 4) Keep the default **Off** in **LAN broadcast**, click **Next**.

LAN broadcas	st
Off *	
Hosts that tu	Irn off LAN broadcasts need to be manually added to the list of hosts.

 Select the operation mode as Connect to Desktop Controller; Desktop Controller manages desktop connections, and enter the Server Address, e.g. 192.168.1.13, and click Next

Select 1	he operation mode:
() we	ork standalone with Desktop Agent; Connect with Windows accounts.
0.00	nnect to Desktop Controller; Desktop Controller manages desktop connections.
Sei	rver Address: 192.168.1.13
Ad de	dress format: 192.168.1.123:15000 or example.com:15000, if the port is not fined, 15000 will be used as default port.

### 6) Keep the default **Off** in **Auto shutdown the terminal after the terminal user logs out.** Click **Next**

Auto shutdown the terminal after the terminal user logs out:



- 7) Reboot the virtual machine as prompted, and then shut down the virtual machine.
- 8) The installation of the new virtual machine is complete.

### 5.2 Creat a template

1) Ensure the virtual machine is powered down and select it, click **More** Actions (:), then click **Make Template** 

ns:										× ☆ ~ C
New	Edit	Remove	► Run	1 × C	Suspend	Shutdown 🗸	C Reboot	🖵 Console 🗸 🗸	Migrat	e Create Snapshot
-										Import
	N	ame		Comment	Host	IP Add	resses	FQDN	Cluster	Clone VM
	1 w	íin10							Default	Change CD

2) Enter a **Name** for the template, e.g. **Win10\_template**, select the storage domain on which to store the disk from the Target drop-down. By default, these are the same as those of the source virtual machine. Click **OK**.

New Template	0				3
Name	-	Win10_template			]
Description					
Comment					]
Cluster		Default/Default		~	
CPU Profile		Default		~	1
Alias	Virtual Size	Format	Target	Disk Profile	
Win10_Disk1	20 GiB	Raw	✓ data_domain (32 G ✓	data_domain	$\sim$
Copy VM pe	rmissions te (Linux only)				

3) The virtual machine displays a status of **Image Locked** while the template is being created. When complete, the virtual machine status will return to Down after completion.

ns:										×	☆ ~	Q
New	Edit Remove	▶Run ∨ 🤇	Suspend	Shutdown	~ C F	Reboot	🖵 Console	$\sim$	Migrate	Create	Snapsh	ot
											1 - 1	< 2
ocked	Name	Comment	Host	IP A	Addresses	1	FQDN		Cluster		1 - 1 Data	Cente

4) Click **Compute**  $\rightarrow$  **Template** to check the created template.



Template:							×	습	~	Q
				Import	Edit	Remove	Expor	t v	Ne	w VN
									- F	
0 ~								1.	- 2	< >
2 ✓ Name	Version	Comment	Creation Date	Status	Clus	iter		D	ata C	< > ente
<b>2</b> → Name Blank	Version	Comment	Creation Date	Status OK	Clus	ster		D	ata C	ente

### 5.3 Batch create virtual machines

 Navigate to https://[Host IP]:8080 in Chrome browser, e.g. https://192.168.1.13:8080. Click VM Entertainment, check Create VM and click Edit

≡ 🗿 JoinVDI Works	pace		≡ o;
ISO Image	/ VM E	Environment	
VM Environment			C Refresh Finable Stop C Edit
O User Management		Status	Function
$\mathbf{X}$		•	Auto Boot VM
I VM Permission		•	Auto Shutdown VM
$\backslash$		•	Auto VM Snapshot
>_ Run Command		•	Manual VM Snapshot
Q. Authorization		•	Set VM State
-4 Autorization		•	Set VM Static IP
		0	Set VM Computer Name
		0	Create VM

2) Check Select VM or Select Template to create virtual machines. The entered VM Name or Template Name must be completely correct. You can customize the numbering of the New VM Name with ?? as a placeholder. e.g. Win10-??, Win10-??-test.

1 Dottoor	Select VM Select T	emplate
Pattern		emplate
* Template Name	Win10_template	
* New VM Name	Win10-??	
* Count	50	
	From Win10-01 to Win10-50	

ns	8										<b>x</b> ☆ ∨ Q
	New	Edit Rem	ove R	un v C	Suspend	Shutdo	wn ~	C Reboot	: 🖵 Console 🗸	Migrate	reate Snapshot
2	~										1 - 51 < 3
		Name		Comment	Host		IP Addr	esses	FQDN	Cluster	Data Cente
,	۵	Win10								Default	Default
		Win10-01	1							Default	Default
		Win10-02	2							Default	Default
,		Win10-03	3							Default	Default
-		Win10-04	4							Default	Default
		Win10-05	5							Default	Default
		Win10-06	5							Default	Default
	Ű	Win10-01	7							Default	Default
,	(1)	Win10-08	8							Default	Default
	1	Win10-09	9							Default	Default
		Win10-10	D							Default	Default
	1	Win10-1	1							Default	Default
,		Win10-12	2							Default	Default

#### 5.4 Create users

1) Navigate to https://[Host IP]:8080 in Chrome browser. Click User Management, click Create User

≡ 🚑 JoinVDI Work	space				≣ ¢\$
ISO Image	/ User Management				
SVM Environment	🛔 User 🛛 😤 Group	C Re	fresh 🛍 Delete	+ Create Group	+ Create User
O User Management	Username	Display Name	Description No Data	Group	
>_ Run Command			Total 0 100/page	× < 1 >	Go to 1

2) Chose **Create Single** or **Create Multiple** to create users, there are no password strength requirement.

Create Single Cre	ate Multiple
* Username	liser
osemane	0001
* Password	•
Confirm Password	•
Group	Select
	Contirm Cancel
Create User Create Single Cr	eate Multiple
1 * Username	user
2 * Count	50
3 Digit	2
4 Start	4
Group	Select
Password Category	Unified Password     Use Username
6 * Password	
* Confirm Password	•
	从 user01 至 user50

### 5.5 Assign virtual machines to users

### 1) Click VM Permission, click +Create, bind users and virtual machines

≡	🗿 JoinVDI Worl	kspace				≣ <b>o</b> \$
🗈 iso	O Image	/ VM Permission				
<b>€</b> ∨№	I Environment	🛔 User 👹 Group			C Re	efresh 💼 Delete 🔤 🕂 Create
<b>O</b> 11e	er Management	Username	VM			VM Pool
0 03	cr management				No Data	
	Permission					
>_ Ru	n Command				Total 0 10/page	< 1 > Go to 1
VN	A Permission					×
	/M VM Pool			User	Group	
	News					Disular Nama
	Win10-01				Username	
	Win10-02				user02	
	Win10-03				user03	
	Win10-04				user04	
	Win10-05				user05	
	Win10-06				user06	
	Win10-07				user07	
	Win10-08				user08	
	Win10-09				user09	
	Win10-10				user10	
			•	-		*
Se	ected 50		S	elect	ed 50	
						Confirm Cancel

### 5.6 Connect the zero client to virtual machine

- 1) Power on the zero client, you can set **Language**, **Resolution**, **Network** at the top of the login interface.
- 2) After the network is connected, the <u>Connection Broker</u> will automatic searched in the host list.
- 3) Chose the **Connection Broker**, enter the user name and password, login to get the virtual machines.
- 4) Chose a virtual machine, click **login** to boot the virtual machine and display the screen.
- If the <u>Connection Broker</u> not automatic searched in the host list. Please manually add the server IP.
- Confirm that the terminal is updated to the latest firmware, you can contact the solution provider for details.
- It's not recommended access the virtual machine by console

after the zero client, login the virtual machine, so as to avoid the service

exception caused by the resolution conflict.

## 6. Appendixes:

#### 6.1 Change Drive Letter of Windows Virtual Machine

 Press Win+R in virtual machine, enter compmgmt.msc, then Enter to open Computer Management. Click Disk Management. Right-click CD-ROM → Change Drive Letter and Paths...



2) Change Drive Letter D to others. E.g., Drive Letter G.

Change Drive Letter and Paths for D: ()	×
Allow access to this volume by using the following drive letter and path	IS:
Add Change Remove OK Cance	
Change Drive Letter or Path	×
Enter a new drive letter or path for D: ().   Assign the following drive letter:  Mount in the following empty NTFS folder:  Browse	>
OK Canc	el

### 6.2 Add a hard disk to server

### 6.2.1 Mount a hard disk to the system

1) Navigate to https://[Host IP]:9090, e.g. https://192.168.1.13:9090, enter root in User name, enter root password in Password, and click Log In.

JOINVD	Ι COCKPIT	
User name	root	
Password		
	Reuse my password for privileged tasks	
Other Optic	ons	Log In

2) Click **localhost**  $\rightarrow$  **Storage**, select the new hard disk.

	ОСКРІТ						🔓 Privileged	🛓 root 🗸
	host1.domain.c	MiB/s Reading		MiB/s Writing		RAID Dev	vices	•
v	System	4		0.750			No storage set up as RAID	_
æ	Logs Storage	0		0.250	hallenter	Volume 0	iroups centos_host1	
	Networking	Filesystems					49.0 GiB	_
	Virtual Machines	Name	Mount Point	Size		VDO Dev	No storage set up as VDO	
		/dev/centos_host1/root	lhaat		11.57 44.0 GIB			- 1
	Services	/deviser	15001		1457 1014 1015	Drives		- 1
	Diagnostic Reports	NFS Mounts			•	<	50 GiB Hard Disk R: 0 B/s W: 0 B/s	
	Kernel Dump		No NFS mou	ints set up				_
	Terminal	Storage Logs				61	100 GiB Hard Disk R: 0 B/s W: 0 B/s	

3) Click **Create Partition Table**. In the pop-up window, keep the default option and click **Format**.



#### 4) Click Create Partition.

Size			100	GiB ∽
Erase	Don't overwrite existing data			~
Туре	XFS - Recommended default			~
Name				
	Encrypt data			
Nounting	Default			~
		C		

5) Unfold the content, chose **Filesystem**, click **(default )** to set **Mount Point**, select **custom** in Mounting, enter the path **/home/storage/local/disk1** in Mount Point, and click **Apply**.

Filesystem Mo	unting		
Mounting	Custom		~
Mount Point	/home/storage/local/disk1		
Mount Options	Mount at boot		
	Mount read only		
	Custom mount options		
		Cancel	Apply
Costost			
Content		Create Partit	ion Table
∼ _ 100 Gil	B xfs File System /dev/sdb1		
Partition I	Filesystem	Delete	Format
Name	· \ /		
Mount Poin	t (default) Mount		
Used	1 ÷		

#### 6) Click Mount.

100 010 X	s File System	/dev/sdb1		
Partition File	system		Delete	Format
Name	1			
Mount Point	/home/storage/local/disk1	Mount		
Mount Point Mount Options	/home/storage/local/disk1 defaults	Mount		

 Click terminal, copy the command chown -R vdsm:kvm /home/storage/local/disk1 and paste here, press Enter to change the path permission.

	оскріт	<u> </u>		💄 root	~
	🗐 host1.domain.c	root@host1:~ Appearance:	Black	~ Rese	et
V 88	System Logs Storage Networking Virtual Machines Accounts Services Diagnostic Reports Kernel Dump SELinux <b>Terminal</b>	[root@host1 ~]# chown -R vdsm:kvm /home/storage/local/disk1			

• Below are the default paths, can be used directly when adding a hard disk in

the future.

#### /home/storage/local/disk2

/home/storage/local/disk3

/home/storage/local/disk4

/home/storage/local/disk5

### 6.2.2 Add a hard disk to the storage domain

Navigate to https://Host IP , Click Storage  $\rightarrow$  Domains  $\rightarrow$  New Domain to add a new storage domain.

ew Domain				
Data Center	Default (Local)	Name	4 disk1_domain	
Domain Function	Data	- Description		
Storage Type	Local on Host	~ Comment		
Host ()	host1	v		
Path	/home/storage/local/disk	ň		
Advanced Parameters				

### 6.3 Add a new virtual disk to the virtual machine

#### 1) Select the virtual machine and click **Edit**.

ms:													×	습	~ Q
	New	Edit Re	emove	► Run	~	💪 Suspend	Shutdow	vn 🗸	C Reboot	t 🖵 Conso	le v	Migrate	Create	Snap	shot
C	~													1 -	1 <
<b>2</b>	~	Name		Com	nment	Host	IP	Addres	ies I	FQDN		Cluster		1 - Data	1 < Center

#### 2) Click + $\rightarrow$ Create.

Edit Virtual Machine		×
General >	Cluster	Default v
System		Data Center: Default
Initial Run	Template	Blank   (0) ×
Console	Operating System	Windows 10 x64 v
console	Instance Type 😢	Custom
Host	Optimized for	Desktop v
High Availability	Name	Win10
Resource Allocation	Description	
Boot Options	Comment	
Random Generator	VM ID	2c0675ca-4cdd-43c1-973a-e454269eb27a
Custom Properties	Stateless Start in Pause Mode Delete Prote	ction
lcon	Instance Images Win10_Disk1: (20 GB) existing (boot)	Edit + -
Foreman/Satellite		Attach Create + -
Affinity Labels		e.
	nic1 ovirtmgmt/ovirtmgmt 🗸	+ -
Hide Advanced Options		OK Cancel

Hide Advanced Options

OK Cancel

OK Cancel

			×
nder Managed Block			
50		Wipe After Delete	
Win10 Disk2		Bootable	
		Enable Discard	
VirtIO-SCSI	~		
disk1_domain (99 GiB free of 99 GiB)	~		
Thin Provision	~		
disk1_domain	~		
	nder Managed Block 50 Win10_Disk2 VirtIO-SCSI disk1_domain (99 GiB free of 99 GiB) Thin Provision disk1_domain	nder Managed Block 50 Win10_Disk2 VirtIO-SCSI VirtIO-SCSI disk1_domain (99 GiB free of 99 GiB) Thin Provision disk1_domain	nder Managed Block 50 S0 Bootable Bootable Shareable Read-Only Enable Discard VirtIO-SCSI VirtIO-SCSI Virtlo-scosi disk1_domain (99 GiB free of 99 GiB) Thin Provision Vision Vis

### 3) Enter the size of the virtual disk, select the target storage domain. And click **OK**.

Press Win+R in virtual machine to open the Run dialog box, enter compmgmt.msc, press Enter to open Computer Management.
 Click Disk Management. Right-click the new disk, and click Initialize Disk.

🛃 Computer Management						- 🗆 X
File Action View Help						
(= =) 🖄 🖬 🛛 🖬 🗩	<b>V</b> 3					
🛃 Computer Management (Local	Volume	Layout Type	File System	Status	c	Actions
🗸 👔 System Tools	- (C:)	Simple Basic	NTFS	Healthy (Boot, Page File, Crash Dump, Primary Partition)	19	Disk Management
> 🕘 Task Scheduler	- System Reserved	Simple Basic	NTFS	Healthy (System, Active, Primary Partition)	54	Mars Astiens
> 🛃 Event Viewer						Wore Actions
2 > 8 Shared Folders						
>   Performance						
🛔 Device Manager						
V Storage						
📑 Disk Management						
Services and Applications						
	<				>	
	8				-	
	ODisk 1		-		<u> </u>	
	Unknown 50.00 GB	Initialize Disk				
	Not Initialized	Offline				
		Properties	E		*	
< >		Help				
a Run		)	<			
Type the name of a pr	ogram folder docum	ent or Internet				
resource, and Window	s will open it for you.	chi, or memer				
	301 489					
Open: compmgmt.msc		~				
ОК	Cancel	Browse				
	-					

#### 5) Chose **GPT** $\rightarrow$ **OK**.

Initialize Disk	)
You must initialize a disk before Logical Disk Manager can access it.	
Select disks:	
Disk 1	
Use the following partition style for the selected disks:	
MBR (Master Boot Record)	
GPT (GUID Partition Table)	
Note: The GPT partition style is not recognized by all previous versions	s <mark>o</mark> f
windows.	

#### 6) Right-click, and then click **New Simple Volume**.



# 7) Click **Next** according to the wizard, and then finish to create a new simple volume.

-		
Assign the following drive letter:		
O Mount in the following empty NTF	S folder:	
	Browse	
	- ACCOUNT AND A AND	
) Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	
⊃ Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	
Do not assign a drive letter or driv	e path	cel