

USER GUIDE FOR VCLOUD DIRECTOR PORTAL – USDC TECHNOLOGY



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1. Introduction

vCloud Director Portal is an interface of administrative portal used to manage Virtual Private Cloud service of USDC Technology, helping to perform basic operations such as power off, suppend, reset, create snapshots, check configuration parameters (CPU, Memory, Disk, Network ...), the performance graph of the virtual machine as well as the tasks related to user management, vFirewall configuration, vLoad Balancer ... Tenant Portal interface using HTML5 with many new features and user friendly.

To access the service management page, please log in to the link and account provided.

Syntax of the login path: https://vpc.vcpp.vn/tenant/YOUR_ID with YOUR_ID is the Customer Code.

According to USDC Technology's cloud computing solution, each Customer will be separated into separate entities commonly known as Organization or Tenant. Resources are organized into Virtual Data Centers separately for each Customer with all components: Compute, Storage and Network attached to the Virtual Machine.





2. Check status information

After logging in successfully, from the main administration screen, you can see the general parameters in the virtual datacenter: Site, vApp, VM, allocated resources, used resources ...

vCloud Director - Virtual Datace 🗙	+			- 0	×
← → ♂ ŵ	🗊 🔒 🗝 https://vpc. vcpp.vn /tenant/u		🖂 🧧	×☆ II\ 🖸 @	
vm vCloud Director	Datacenters		¢ م	Cuongls Organization Administr	ator
Virtual Datacenters Ded	icated vSphere Datacenters				^
Environment		Running Applications	Used Resources		
◎ Sites: 1 🖁 B Organizati	ions: 1 🛆 Virtual Datacenters: 1	ြ VMs: 9 麗 vApps: 2	📋 CPU: 27 GHz 🛛 🎹 Memory:	53 GB 🗐 Storage: 496 GB	
 △ usdc-vdcO1 ⊕ usdc, © 10.3 Applications 2 vApps 9 of 11 	72.1.2 CPU Memory 27 GHz 53 GB	Storage 496 GB		Find by Name	
50	GHz allocated 128 GB allocated	1 TB allocated			
					~
Recent Tasks Running: 0 Fa	ailed: 🧿				~

Click **Datacenter** to see information about the virtual machines are available. You can select the search icon and enter the hostname to quickly search the VM.

vm vCloud Directo	r 3	Datacenters					୧) ~ Vtdo Organization Ac	C Iministrator
÷		Catalogs	VTDC 🔮 17e8	lc45-a16d-41ce-b	pef4-6d7a0d6	21030			
	«	NEW VM Look in All VMs ~	V VM Look in All VMs 🛛 🖓 🕼 C See this page in vCloud Director Web Console						88 =
<pre>## Compute vApps</pre>	~	Name ↑ 🔻	Filter Name		∽Sear	ch	pp Name 🔻	Storage Policy 🔻	Snapshot
Virtual Machines		E TEST-VM-01	Powered on	Microsoft	2048 MB	2	Test_Win2k16	Gold Storage	
Affinity Rules		: 🗗 ATMA-Win2k16	Powered off	Microsoft	1024 MB	1	ATMA-Win2k16_A	Gold Storage	-
Setworking	~	ATMA-Debian10_AutoResize	Powered on	Debian GN	1024 MB	1	麗 ATMA-Debian10_A	Bronze Storag	-
Networks		ATMA-CentOS7.5	Powered off	CentOS 4/	1024 MB	1	I ATMA-CentOS7.5	Bronze Storag	
Edges									
Security		•							•
Storage	~								
Independent Disks									



Virtual Machines > TEST-VM-01 ST-VM-01			
General			
Name	TEST-VM-01	Virtual Data Center	Catalogs
Computer Name	ATMA-Win2k16	VMware Tools	10346
Description		Virtual Hardware Version	HW 11
Operating System Family	Microsoft Windows 🗸	Enter BIOS Setup	
Operating System	Microsoft Windows Server 2016 (64-bit) 🗸		
Boot Delay	1000		
Storage Policy	Gold Storage Service 🗸		
Hardware			
CPU			
Number of virtual CPUs	2 ~	Virtual CPU hot add	
Cores per socket	1 ~	Number of sockets	2
Expose hardware-assisted CPU virtualization to guest OS		Removable Media	-
Memory		CD/DVD drive	Disconnected

Note: To change the configuration please make purchase orders from USDC Technology Service Portal (USDC Portal) or contact Sales staff for more details.

Z To see vApp information and list, select vApp in the Compute menu on the left:

	«	NEW VAPP ADD VAPP F	ROM OVF 🏹 🎵	C See this page in vCloud Direc	tor Web Console		
III Compute	~		4				
vApps							
Virtual Machines		vApp Test_Win2k16		vApp ATMA-Win2k16_AutoRe		vApp ATMA-Debian10_AutoR	
Affinity Rules		Running	621	Stopped	621	Running	621
Setworking	~	Virtual Machines	Lease	Virtual Machines	Lease	Uirtual Machines	Lease
Networks		1	Never	1	Never	1	Never
Edges		Total CPUs	Expires Networks	Total CPUs	Expires Networks	Total CPUs	Expires Networks
Security		Total Storage	vtdc-Net-7	Total Storage	None	Total Storage	vtdc-Net-163
Storage	~	40.00 GB	Snapshot	ZO.OU GB	Snapshot	ZO.OU GB	Snapshot -
Independent Disks		2048 MB		1024 MB		1024 MB	
		ACTIONS Y DETAIL	.S	ACTIONS Y DETAILS		ACTIONS Y DETAILS	





«	NEW	DELETE							
~	Status	Name	↑ ▼	Network Gateway CIDR	Ŧ	Routing	Connected To	IP Pool Cons	sumed
	\odot	Private Network Demo	þ	192.168.1.254/24		Routed	DemoEdgeGateway		1%
		vtdc-Net-163		45.117.163.254/25		Direct	592-VPS External Network		26%
~	\odot	vtdc-Net-753		27.71.235.254/24		Direct	753-VPS External Network	I.	3%
									1 - 3 of 3 items
~									
	« ~ ~	NEW	 NEW DELETE Status Name Private Network Demo vtdc-Net-163 vtdc-Net-753 	NEW DELETE Status Name Image: The status O Private Network Demo Vtdc-Net-163 Vtdc-Net-753	Status Name T Network Gateway CIDR Private Network Demo 192168.1254/24 45.117.163.254/25 vtdc-Net-163 45.117.163.254/25	Kew DELETE Status Name T Network Gateway CIDR T Private Network Demo 192.168.1.254/24 Vtdc-Net-163 45.117.163.254/25 S Vtdc-Net-753 27.71.235.254/24 S S S S	NEW DELETE Status Name	Image: New Delete Image: New Delete <t< td=""><td>Image: Status Name Image: Transmission of the status Routing Connected To IP Pool Construction Image: Status Name Image: Transmission of the status Image: Transmission of transmission of the status Image: Transmission of transmissin of transmission of transmissin of transmission of tra</td></t<>	Image: Status Name Image: Transmission of the status Routing Connected To IP Pool Construction Image: Status Name Image: Transmission of the status Image: Transmission of transmission of the status Image: Transmission of transmissin of transmission of transmissin of transmission of tra

∠ Check the list and status of networks:

Scheck the status of Edge Gateway (in case you have vFirewall, vLoad Balancer):

	~	CONFIGURE SERVI	CES CONVERT TO A	ADVANCED	REDEPLOY							
Compute VApps Virtual Machines	~	Status Na	me 1 moEdgeGateway	1 - U 2	sed NICs	# External	Networks	v	# Org VDC Networks	Ŧ	HA Status Disabled	Ŧ
Affinity Rules	~											1 - 1 of 1 items
Networks Edges	Networks Edge Gateway Settings											
Security		General Name ✓ Description		DemoEdgeGateway			Edge Gateway Configuration High Availability		Compact			
		IP Addresses External Networks	Subnets		IP Addresses		Default Gatewa External Networ Default Gateway	ay ks	753-VPS Externa 27.71.235.254	Network		

To configure and use vFirewall, vLoad Balancer, please refer to "User Guide for vFW and vLB Services-EN" or contact USDC Technology Technical support.

3. Virtual Machine interaction

At the main screen, select the Virtual Machines menu, select the VM to manipulate and press **Actions**.





The following main operations are included:

a) Power command group:

- Suspend: suspend the server (similar to sleep state on Windows)
- Shutdown Guest OS: call to shut down the operating system (requires VMware tools).
- Power off: turn off the server.
- Power on: reopen the server (in the previous power off state).

- Power on and Force Recustomization: Open the computer and automatically execute the Guest Customize properties for the Operating System (computer name, change SID, admin password, ...). This parameter is configured in the Guest OS Customization section of the VM (select the Details button).

- Reset: resets the server.
- b) Media: Insert media and release (Eject) ISO files for OS installation, boot disk.





USDC Technology has a library of source ISO files for installing common operating systems (Windows Server, CentOS, Ubuntu ...). You can filter by Name field to search faster.

Note: In case you manually reinstall the Operating System for the Virtual Machine, please install additional VMware Tool or Open-VM-Tools to ensure compatibility, performance and features on the system to be enabled, stable operation.

Insert CD				
Select the media file to insert in the VM.				
Media available now:				
Name 🤟 🔻	Catalog 🔻	Owner 🔻	Created On 🔻	Storage y Used
SW_DVD9_Win_Server_STD_CORE_2019_64Bit_English_DC_STD_MLF_X21-96581.ISO	ISO	system	3/15/2019, 3:42:16 PM	4618.66 MB
SW_DVD9_Win_Svr_STD_Core_and_DataCtr_Core_2016_64Bit_English3_MLF_X21- 30350.ISO	ISO	system	7/7/2018, 12:26:10 PM	5605.75 MB
SW_DVD9_Windows_Svr_Std_and_DataCtr_2012_R2_64Bit_English4_MLF_X19-82891.ISO	ISO	system	7/7/2018, 12:28:06 PM	5149.95 MB
Ubuntu-14.04.5-server-amd64.iso	ISO	system	8/23/2018, 3:16:37 PM	619.00 MB
Ubuntu-14.04-desktop-amd64.iso	ISO	system	8/23/2018, 3:56:12 PM	964.00 MB
Ubuntu-16.04-server-amd64.iso	ISO	system	6/25/2016, 8:35:02 AM	655.00 MB
Ubuntu-17.04-server-amd64.iso	ISO	svstem	10/1/2017. 2:40:06	1534.50 MB
			CA	INCEL

a) **Snapshot**: In case of renting storage space for Snapshot, you can use this function to create photos for the server.

Note: The host system stores only one snapshot, the new creation will overwrite the old snapshot.



- Create Snapshot: create new Snapshot, the new snapshot will overwrite the old one.
- Revert to Snapshot: Restore the previously created Snapshot.
- Remove Snapshot: Delete and remove Snapshot.
- b) Console: You can console directly to the virtual machine screen via Web browser or VM Remote Console (VMware Remote Console-VMRC application must be installed on the client computer).
 - Lauch Web Console: console to the server screen via the Web Console interface.
 - Launch VM Remote Console: Access the server with VM Remote Console.
 - Download VMRC: Download extension VMware Remote Console.

🚼 TEST-VM-01 - Google Chrome			
https://cloud2.viettelidc.com.vn/te	nant/VTDC/wmks-console/index.html?vmI	d=vm-742e417a-3a57-4a35-a742-1ff34cd5	5176d
TEST-VM-01			FULL SCREEN
CTRL+ALT+DEL OPTIONS			
Eile Co	≂ This PC mputer View		- 0
Recycle Bin $\leftarrow \rightarrow \star$	↑ 💻 > This PC →		🗸 💆 Search This PC
 ✓ # Quick a ■ Deskte ↓ Downi ☆ Docur ☞ Pictur 	ccess V Folders (6) pp * Desktop loads * Desktop ments * Music	Documents	Downloads
> 💻 This PC	✓ Devices and drives (2) —		
> 💣 Networ	k Local Disk (C:) 24.1 GB free of 39.5 Gb	3 DVD Drive (H:)	
1			

4. User Management

To add / remove / modify the login user using your vCloud Director Portal, from the admin interface select the menu Administration -> Users



vm vCloud Directo	or	📃 Administratio	n			
	~	Datacenters				
容 Access Control	~	Libraries				
Users		Administration				
Groups		Tasks	🔻 🛛 Full Name 🔻	Enabled	Locked 🔻	Role
③ Settings	~	Events		\checkmark	đ	ित्र Organizatic
General		O linhtq		\checkmark	đ	🔄 Organizatic
Email						
Guest Personalization	1					

- ✓ To create new User, click New:
 - Fill in name and password in Username, Password section with personal information in Contact Info.
 - Choose Permission Role. Usually the highest permission is: **Organization** Administrator.

Create User	×
Credentials	Î
User name *	user01
Password *	
Confirm password *	
Enable	
Role	
Available roles *	Select a role
Combo de la Co	Select a role Catalog Author VApp User
Contact Info	Organization Administrator
Full name	Defer to Identity Provider
Email address	vApp Author
Phone number	•
	DISCARD



- Choose Unlimited in Quotas



Finally, click Save to save changes.

To modify, choose Edit and choose Disable-Delete corresponding situition.

U	sers												
	NE	W E	EDIT	ENABLE	DISA	BLE UNLO	CK DELETI	E					
		Name	Ŧ	Full Name	т	Enabled	Locked	Ŧ	Role	Туре	т	All VMs / Quota	Running VMs / Qu
	0	user01				\checkmark	ெ		🛐 Organization Administrator	Local		0 / Unlimited	0 / Unlimited
	\bigcirc	vtdc				\checkmark	ď		🛐 Organization Administrator	Local		0 / Unlimited	0 / Unlimited
	\bigcirc	linhtq				\checkmark	ď		🛐 Organization Administrator	Local		0 / Unlimited	0 / Unlimited

5. Reset Operating System admin password

To do this, the Virtual Server Operating System needs to have VMware tools installed on

Windows or the Open-vm-tools package in Linux operating systems.

TEST-VM-01			
∨ General			
Name	TEST-VM-01	Virtual Data Center	Catalogs
Computer Name	ATMA-Win2k16	VMware Tools	10346
Description		Virtual Hardware Version	HW 11
Operating System Family	Microsoft Windows $ \smallsetminus $	Enter BIOS Setup	
Operating System	Microsoft Windows Server 2016 (64-t $ imes $		

Step 1: Choose DETAILS to see other information by VM. And choose Guest OS

Customization to reset password for Administrator / Root user



> General		
> Hardware		
> Guest OS Customization		
> Advanced		
DISCARD CHANGES	SAVE	

Step 2:

- **Enable guest customization**: Allow to change parameters within the Operating System, need Choose to have the features below take effect.
- Allow local administrator password: Change the login password of the user administrator.
- Choose **Require Administrator to change password on first login:** If you want to change the admin password on the first login.
- Enter the new password in the box in **Specify password**

 Guest OS Customization 			
General Enable guest customization Change SID		Join Domain Enable this VM to join a domain Use organization's domain	
Password Reset Allow local administrator passwo	rd	Override organization's domain Domain Name	
Require Administrator to change password on first login Auto generate password		Password	
Specify password M@tKhau!12 Number of times to log on 0 automatically	M@tKhau!123#	Script	
	Value of 0 will disable automatic log on as administrator.	Script file	

The following operations will take effect the first time the Server is opened or when the administrator clicks choose **Power on and force recustomization**. To execute the changes, power off the VM and use the **Power on and force recustomization** command.

6. Install VMware tools

VMware Tools is a great set of utilities to improve the performance of the operating system (OS) and make the management of virtual machines more convenient.

Some benefits of installing VMware Tools for virtual machine operating systems:

- Improve the quality of resolution, color depth of videos and images.

- Allow effective mouse operation: drag, drop files...
- Time synchronization in the operating system (Guest OS) with the server (Hosts).
- Provides full drivers for the operating system.
- Help improve the speed and stability of the network.
- Provides the ability to automatically manage the tasks inside the operating system.

VMware Tools supports almost all popular operating systems in the world: Windows, Linux, ... VMware Tools is provided by VMware as closed source code, usually installed via CD / DVD. In addition, operating system manufacturers such as Linux have integrated Open VM Tools as Packages inside the Repository (software repository) for each Distribution (CentOS, Debian, Ubuntu...), so it will be more optimized. Therefore, with the Linux operating system VMware encourage users to use Open VM Tools more.

a) Install VMware tools for Windows

When registering a new Cloud Server service, VMware Tools will be preinstalled inside the Windows operating system. In case the Customer reinstalled the OS, he must install additional VMware Tools.

How to check the Windows operating system has VMware Tools installed or not. Check the Taskbar: if already installed, there will be an Icon as below:





Check inside Control Panel:

Programs and Features						
ⓒ 💿 ▾ ↑ 🖾 ▸ Control Panel ▸ Programs ▸ Programs and Features 🗸 ৫ Search Programs and Features				Q		
Control Panel Home View installed updates	Uninstall or chang	ie a program select it from the list and	d then click Unir	nstall, Change,	or Repair.	
😵 Turn Windows features on or off	Organize 👻 Uninstall	Change Repair				0
	Name 🔺	Publisher	Installed On	Size	Version	
	Microsoft Visual C++	Microsoft Corporati	6/22/2018	13.2 MB	9.0.30729.6161	
	Microsoft Visual C++	Microsoft Corporati	6/22/2018	10.1 MB	9.0.30729.4148	-
	VMware Lools	VMware, Inc.	6/22/2018	64.2 MB	10.0.9.3917699	
	VMware, Inc.	Product version: 10.0. Size: 64.2 l	9.3917699 MB	Comments	: Build	

To install the VMware tool from the above VM administration interface, choose "Install VMware Tools" in the Actions section. Then the remote or console is inside to install from the newly mounted CD:



Click Finish and then reboot the OS to complete the installation process.

b) Install VMware tools / Open VM Tools for Linux

How to check if the Linux operating system has VMware Tools / Open VM Tools

installed.

- Login SSH as the user root and type one of the following commands:

ps ax | grep VMware ps ax | grep vmtools /etc/init.d/VMware-tools status

If installed, the output will appear as below:

```
root@ATM-6600986-01:~# ps ax | grep vmware
                          0:00 /usr/lib/vmware-vgauth/VGAuthService -s
0:17 //usr/lib/vmware-caf/pme/bin/ManagementAgentHost
  1242 ?
                  S
  1273 ?
                  S1
 17329 tty1
                 S+
                          0:00 grep --color=auto umua
root@ATM-6600986-01:~# ps ax I grep vmtool
  1214 ?
                  S
                          0:44 /usr/sbin/um
                                                bol sd
                          0:00 grep --color=auto un
 17331 tty1
                  S+
 oot@ATM-6600986-01:~# /etc/init.d/vmware-tools status
vmtoolsd is running
```

- Installing Open VM Tools requires an Internet connection to be able to perform.

- For operating systems CentOS 6.x / CentOS 7.x, execute the following commands:

yum install -y epel-release

yum install -y open-vm-tools

- With Ubuntu/Debian, perform these commands:

apt-get install open-vm-tools -y

- Reboot the OS to update the configuration.

7. Monitoring chart of VM resources

vCloud Director Portal provides Cloudwatch (free package) feature to view basic resource performance diagram (CPU, memory, Disk, network) for the whole VM. From the menu access administration interface **Datacenters -> Virtual Machines**, click VM that need to monitor resource performance charts and navigate to the item **Monitoring Chart**:



User Guide for vCloud Director Portal

6			VTDC VTDC @ vcloud.idcl	ab.cloud	
	«	Name	W-24202.01	Virtual Data Center	VTDC
III Compute	~	Computer Name	Win2kt2R2-01	VMware Tools	10305
Virtual Machines		Description		Virtual Hardware Version	HW 13
Affinity Rules		Operating System Family	×	Enter BIOS Setup	
Networking Networks Edges Security	~	Operating System Boot Delay Storage Policy	Microsoft Windows Server 2012 (64-bit) 0 SATA Storage Policy ~	<u>~</u>	
🗐 Storage	~	> Hardware			
Independent Disks Storage Policies		Suest OS Customization Advanced			
Settings General	~	> Monitoring Chart]		
Metadata		DISCARD CHANGES SAV	ΓE		Activate Wind

Then choose the metric (Period) and the period (Period) to track. Show free Cloudwatch package supporting cycles ¹/₂ Hour, Hour, Day, Week.

A total of 8 indicators you can track:

Parameter	Description
cpu.usage.average	CPU usage (average) as a percentage during the interval
cpu.usage.maximum	CPU usage(maximum) as a percentage during the interval
cpu.usagemhz.average	CPU usage in megahertz during the interval
disk.provisioned.latest	Amount of storage set aside for use by a datastore or a virtual machine
disk.read.average	Average number of kilobytes read from the disk each second during the collection interval
disk.used.latest	Amount of space actually used by the virtual machine or the datastore
disk.write.average	Average number of kilobytes written to disk each second during the collection interval
mem.usage.average	Memory usage as percentage of total configured or available memory



Note: These performance graphs are monitored at the infrastructure layer, more detailed monitoring indicators for the operating system and application layer, you can use the specialized monitoring tools installed inside the operating system.

Some graphs illustrate:







Through the previous tutorial, you have experienced the steps using the vCloud Director Portal to manage USDC Technology's Virtual Private Cloud Technical - Services features.

For any questions regarding the service, please contact the hotline (028) 7308 0708 or support ticket page at https://portal.usdc.vn or email support@usdc.vn

Sincerely thank you./

-THE END-