



USER GUIDE FOR V CLOUD DIRECTOR PORTAL – USDC TECHNOLOGY

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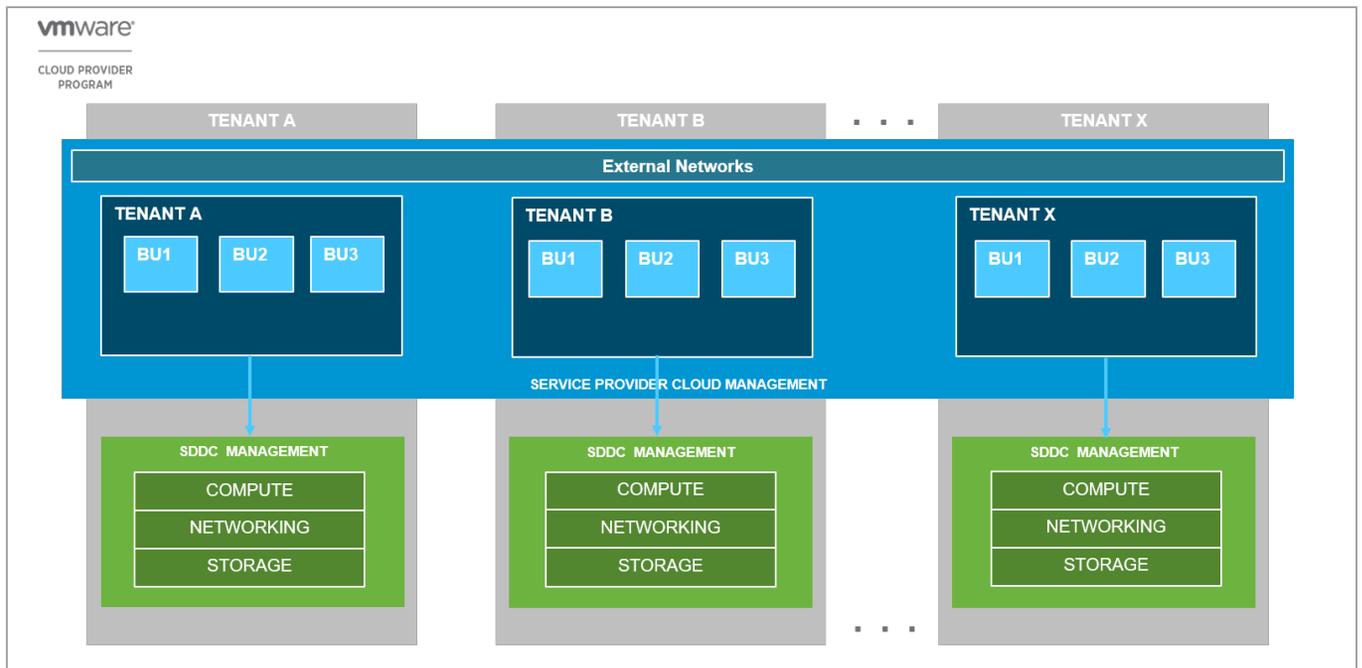
1. Introduction

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, suspend, 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.

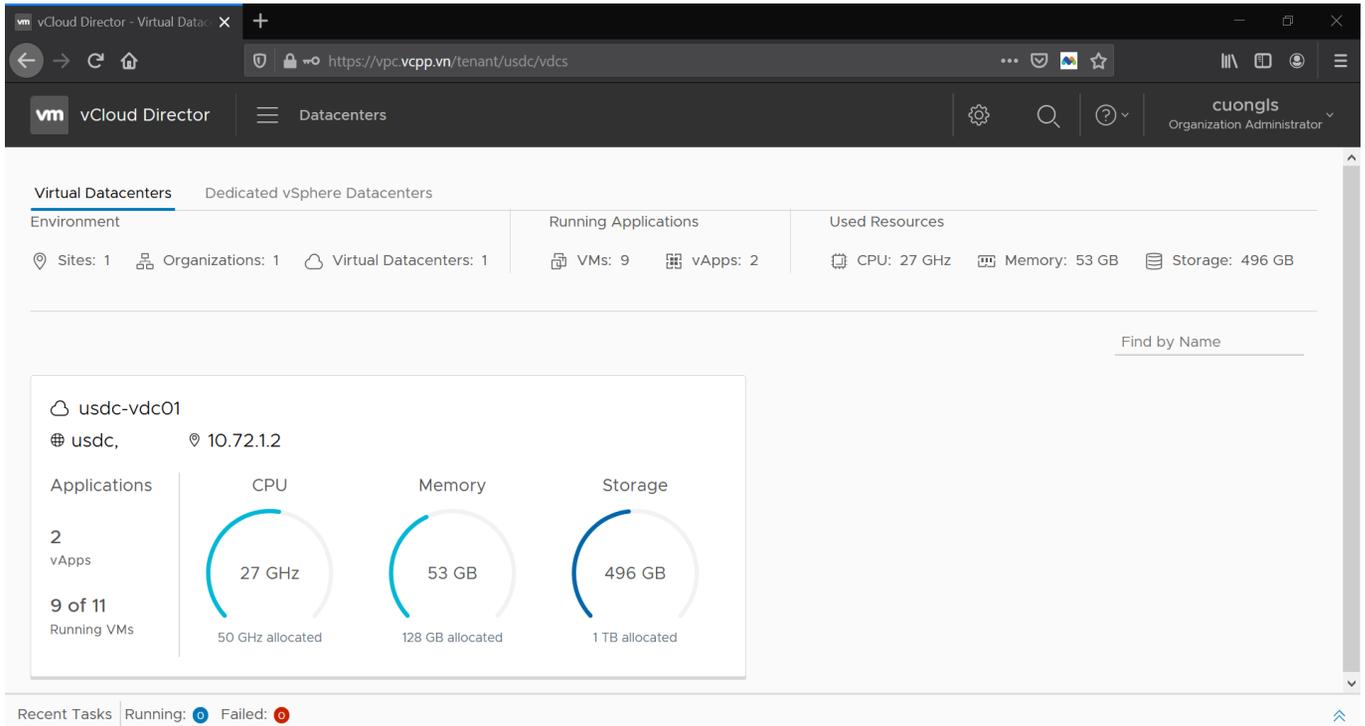
Syntax of the login path: **https://vpc.vcpp.vn/tenant/YOUR_ID** with YOUR_ID is the Customer Code.

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.

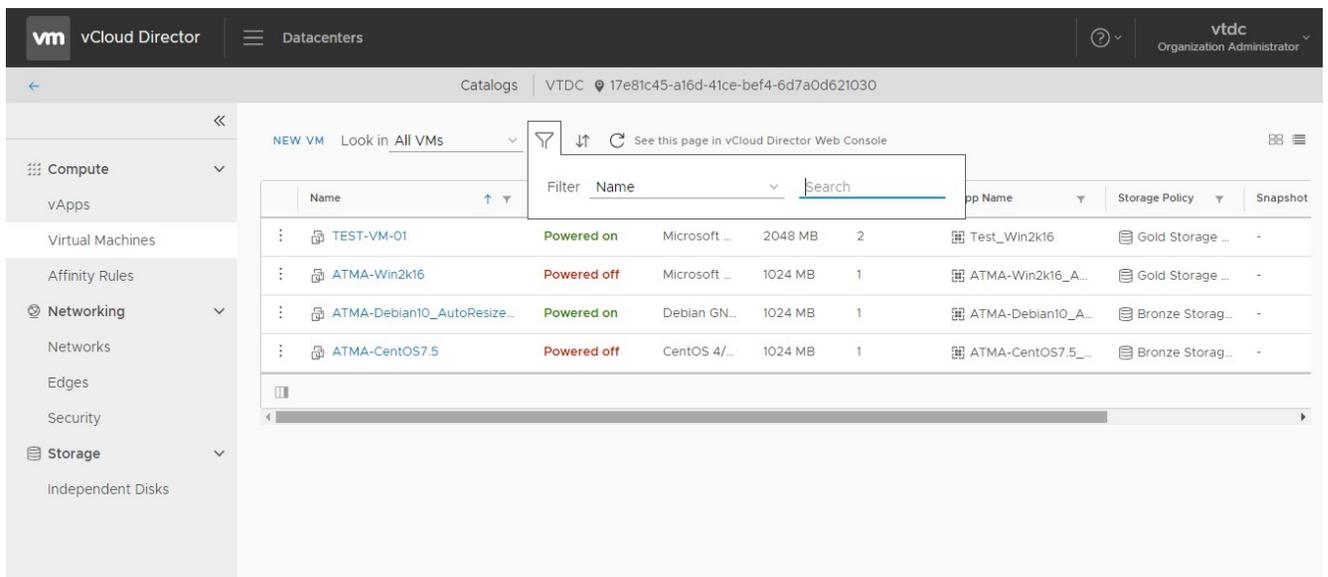


2. Check status information

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 ...



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.



To see **the details of the VM**: Name, OS used, the status of the VM, information about RAM hardware, CPU, HDD, network ... click on the corresponding VM:

All Virtual Machines > TEST-VM-01

TEST-VM-01

▼ General

Name	TEST-VM-01	Virtual Data Center	Catalogs
Computer Name	ATMA-Win2k16	VMware Tools	10346
Description	<div style="border: 1px solid #ccc; height: 30px; width: 100%;"></div>	Virtual Hardware Version	HW 11
Operating System Family	Microsoft Windows ▼	Enter BIOS Setup	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>
Cores per socket	1 ▼	Number of sockets	2
Expose hardware-assisted CPU virtualization to guest OS	<input type="checkbox"/>	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.

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

NEW VAPP
ADD VAPP FROM OVF
🔍
⬆️
🔄
See this page in vCloud Director Web Console

⌵ Compute

- vApps
- Virtual Machines
- Affinity Rules
- 🔗 Networking
- Networks
- Edges
- Security
- 🔗 Storage
- Independent Disks

<div style="text-align: center;"> </div> <p>vApp Test_Win2k16 Running</p> <ul style="list-style-type: none"> Virtual Machines: 1 Total CPUs: 2 Total Storage: 40.00 GB Total Memory: 2048 MB <p style="text-align: right;">Lease: Never Expires: Expires Networks: vtdc-Net-7... Snapshot: -</p> <p style="text-align: center;">ACTIONS ▼ DETAILS</p>	<div style="text-align: center;"> </div> <p>vApp ATMA-Win2k16_AutoRe... Stopped</p> <ul style="list-style-type: none"> Virtual Machines: 1 Total CPUs: 1 Total Storage: 20.00 GB Total Memory: 1024 MB <p style="text-align: right;">Lease: Never Expires: Expires Networks: None Snapshot: -</p> <p style="text-align: center;">ACTIONS ▼ DETAILS</p>	<div style="text-align: center;"> </div> <p>vApp ATMA-Debian10_AutoR... Running</p> <ul style="list-style-type: none"> Virtual Machines: 1 Total CPUs: 1 Total Storage: 20.00 GB Total Memory: 1024 MB <p style="text-align: right;">Lease: Never Expires: Expires Networks: vtdc-Net-163 Snapshot: -</p> <p style="text-align: center;">ACTIONS ▼ DETAILS</p>
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✎ Check the list and status of networks:

Status	Name	Network Gateway CIDR	Routing	Connected To	IP Pool Consumed
✓	Private Network Demo	192.168.1.254/24	Routed	DemoEdgeGateway	1%
	vtdc-Net-163	45.117.163.254/25	Direct	592-VPS External Network	26%
✓	vtdc-Net-753	27.71.235.254/24	Direct	753-VPS External Network	3%

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

Status	Name	Used NICs	# External Networks	# Org VDC Networks	HA Status
✓	DemoEdgeGateway	2	1	1	Disabled

Edge Gateway Settings

General

Name: DemoEdgeGateway | Edge Gateway Configuration: Compact

Description: | High Availability: No

IP

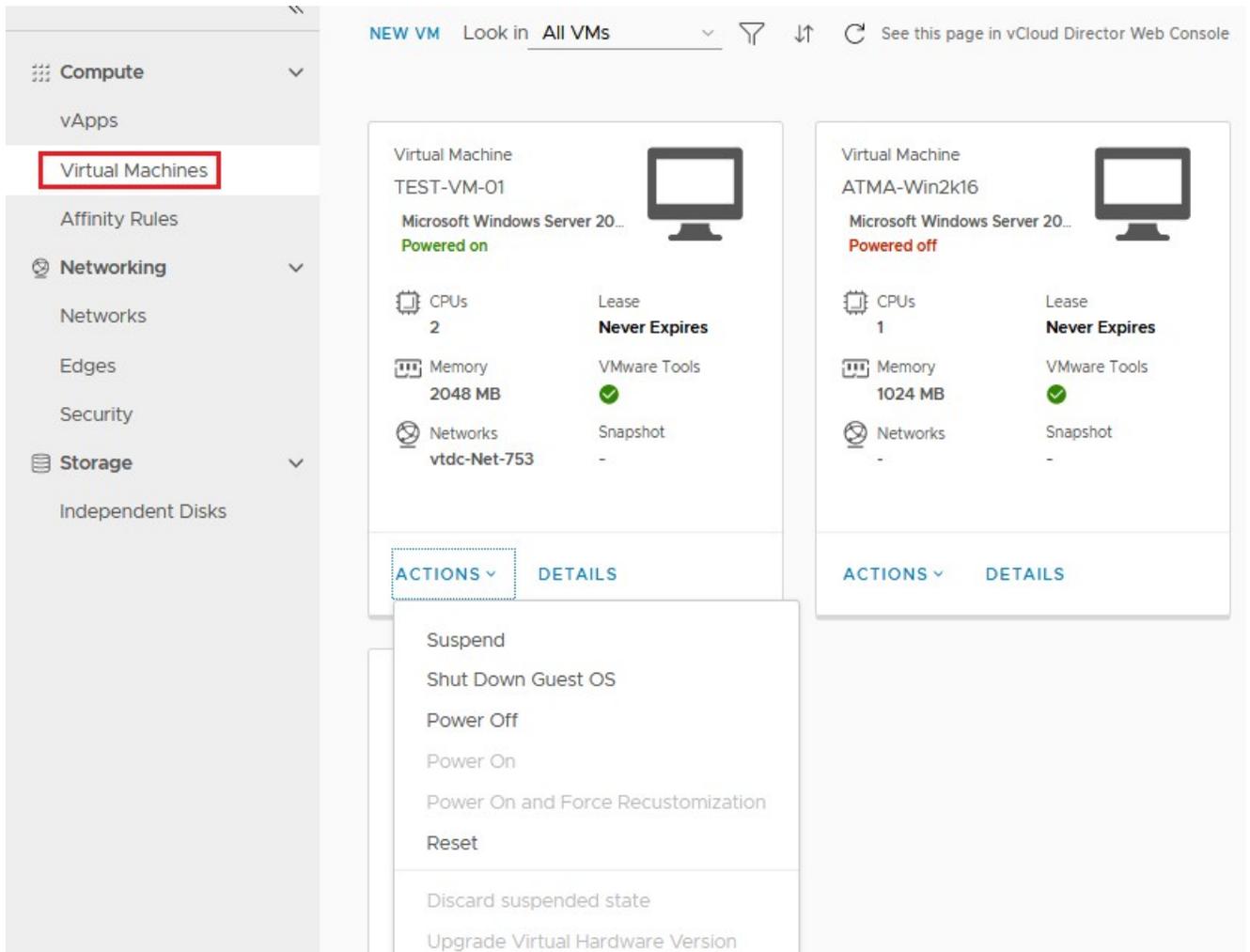
Addresses:

External Networks	Subnets	IP Addresses
External Networks		Default Gateway: 753-VPS External Network
		Default Gateway: 27.71.235.254

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**.

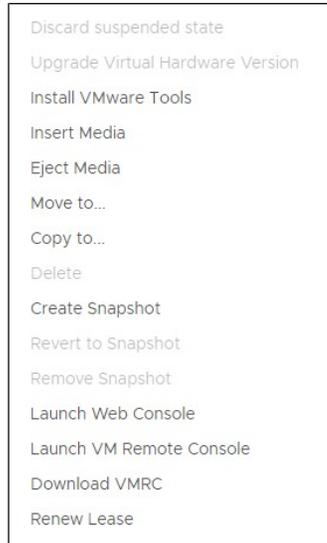


The following main operations are included:

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 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_English_-3_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_English_-4_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

CANCEL
INSERT

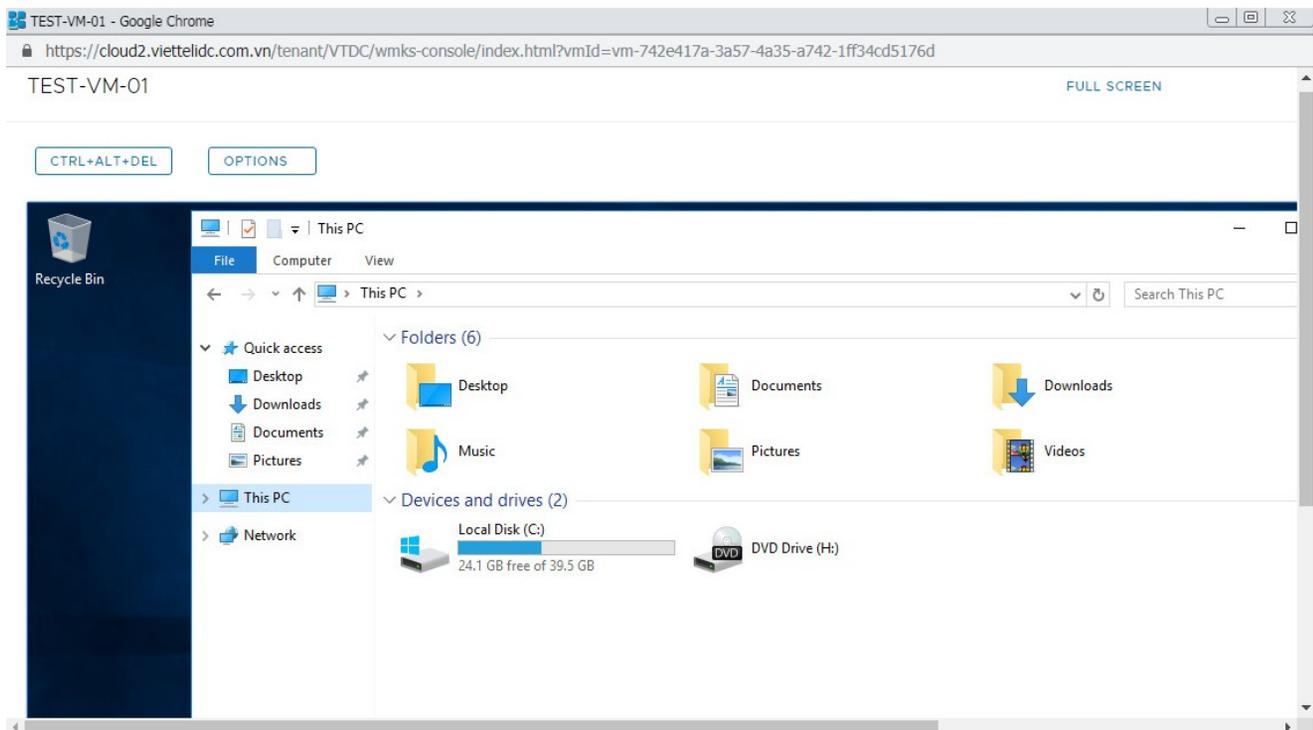
a) Snapshot: In case of renting storage space for Snapshot, you can use this function to create photos for the server.

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.

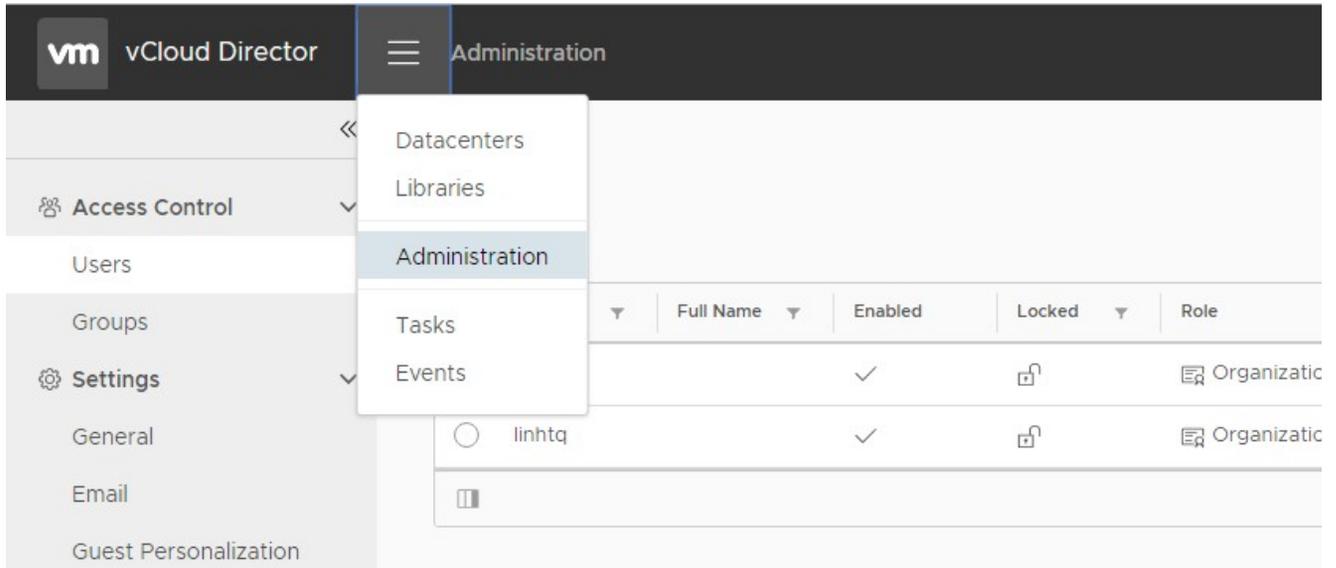
b) Console: You can console directly to the virtual machine screen via Web browser or VM Remote Console (VMware Remote Console-VMRC application must be installed on the client computer).

- Launch 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.



4. User Management

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



✎ 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

User name *

Password *

Confirm password *

Enable

Role

Available roles *

Select a role
 Select a role
 Catalog Author
 vApp User
Organization Administrator
 Console Access Only
 Defer to Identity Provider
 vApp Author

Contact Info

Full name

Email address

Phone number

- Choose Unlimited in Quotas

Quotas

All VMs quota 10

Unlimited

Running VMs quota 10

Unlimited

Finally, click **Save** to save changes.

To modify, choose **Edit** and choose **Disable-Delete** corresponding situation.

Users

NEW EDIT ENABLE DISABLE UNLOCK DELETE

Name	Full Name	Enabled	Locked	Role	Type	All VMs / Quota	Running VMs / Qu
<input checked="" type="radio"/> user01		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Organization Administrator	Local	0 / Unlimited	0 / Unlimited
<input type="radio"/> vt dc		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Organization Administrator	Local	0 / Unlimited	0 / Unlimited
<input type="radio"/> linhtq		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Organization Administrator	Local	0 / Unlimited	0 / Unlimited

5. Reset Operating System admin password

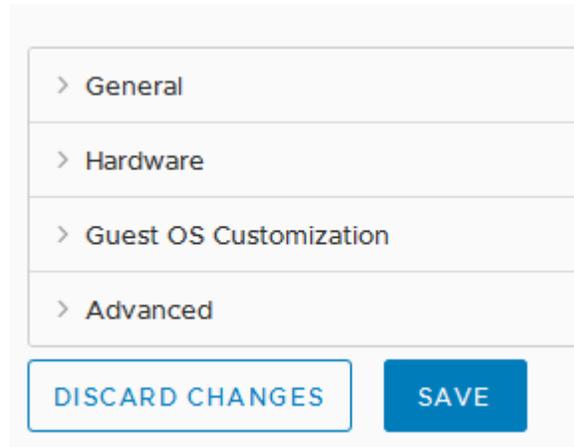
To do this, the Virtual Server Operating System needs to have VMware tools installed on Windows or the Open-vm-tools package in Linux operating systems.

TEST-VM-01

General

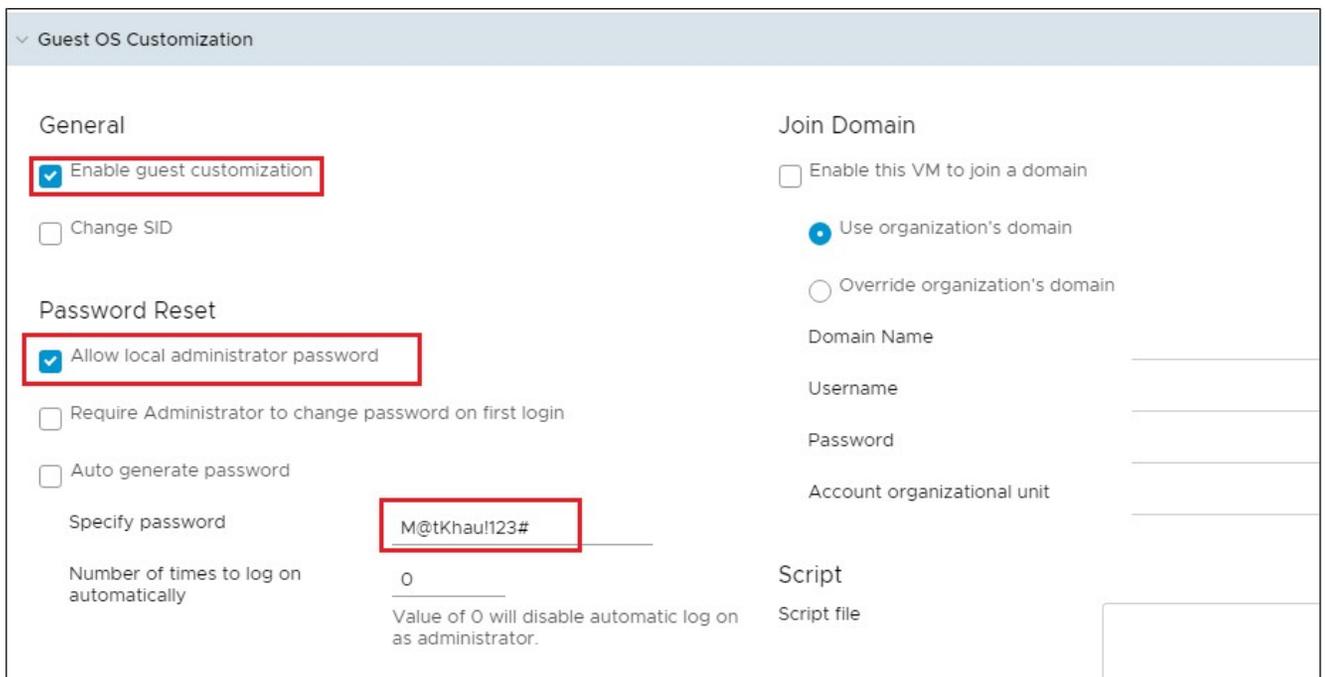
Name	TEST-VM-01	Virtual Data Center	Catalogs
Computer Name	ATMA-Win2k16	VMware Tools	10346
Description	<input type="text"/>	Virtual Hardware Version	HW 11
Operating System Family	Microsoft Windows	Enter BIOS Setup	<input type="checkbox"/>
Operating System	Microsoft Windows Server 2016 (64-bit)		

Step 1: Choose DETAILS to see other information by VM. And choose **Guest OS Customization** to reset password for Administrator / Root user



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**



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.

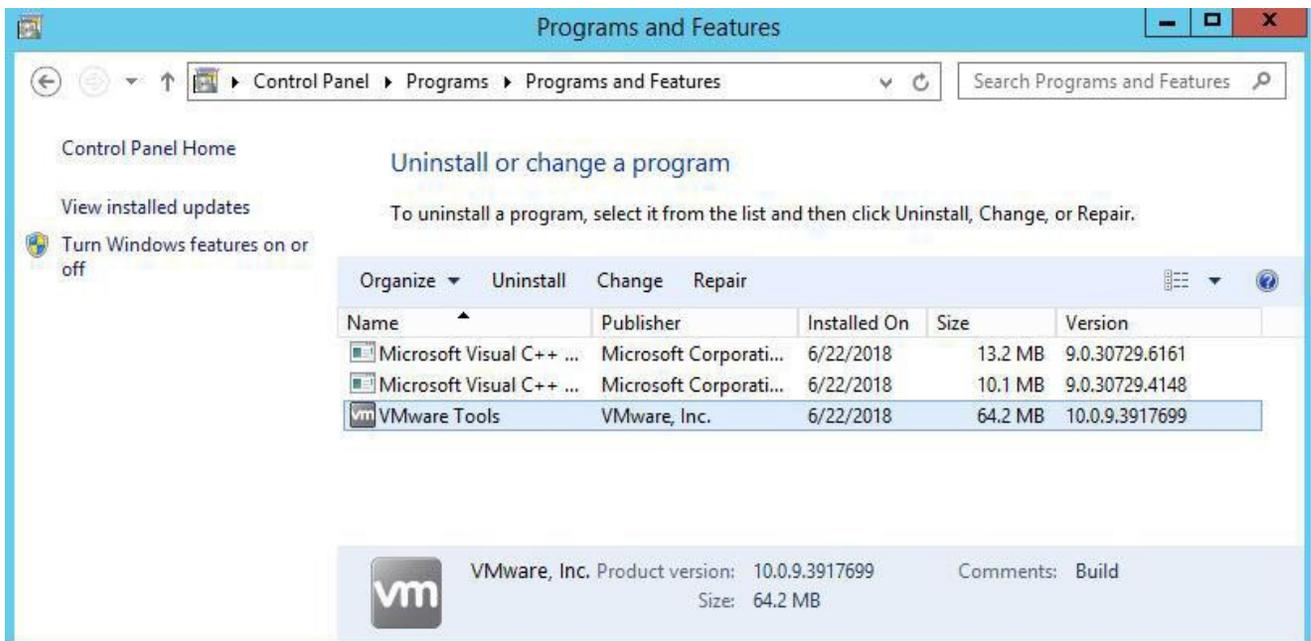
a) Install VMware tools for Windows

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:



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

☞ To perform the installation Open VM Tools:

- 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
```

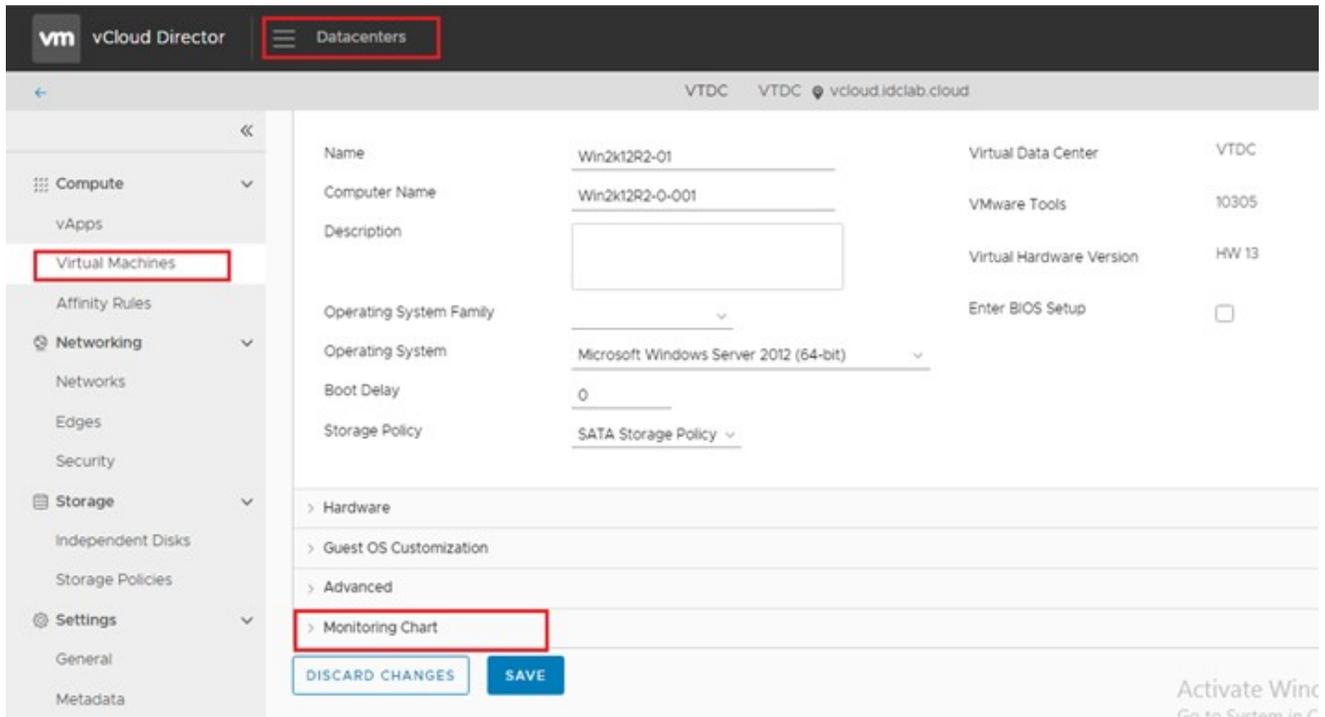
- With Ubuntu/Debian, perform these commands:

```
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**:



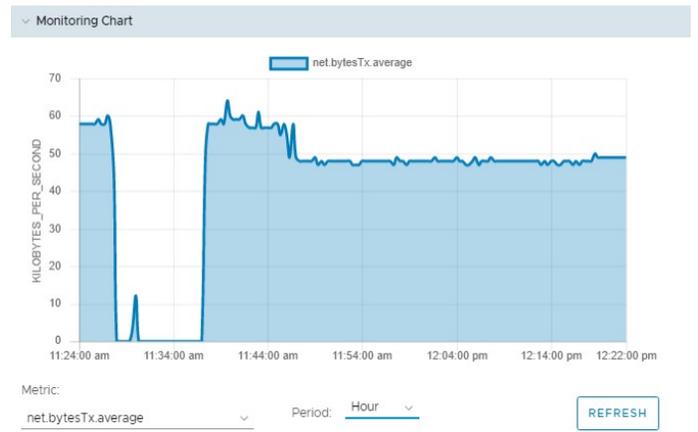
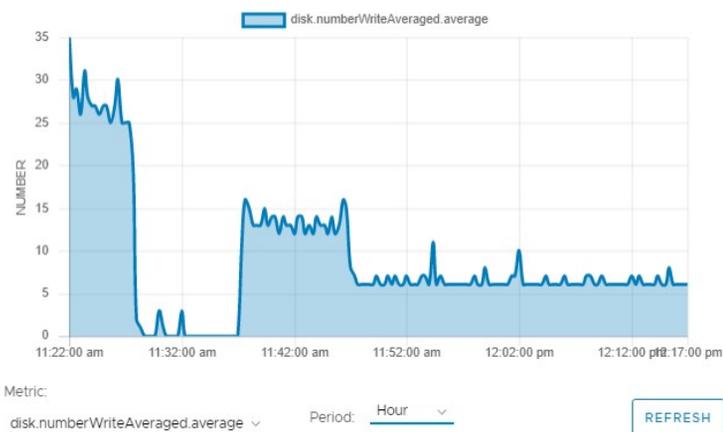
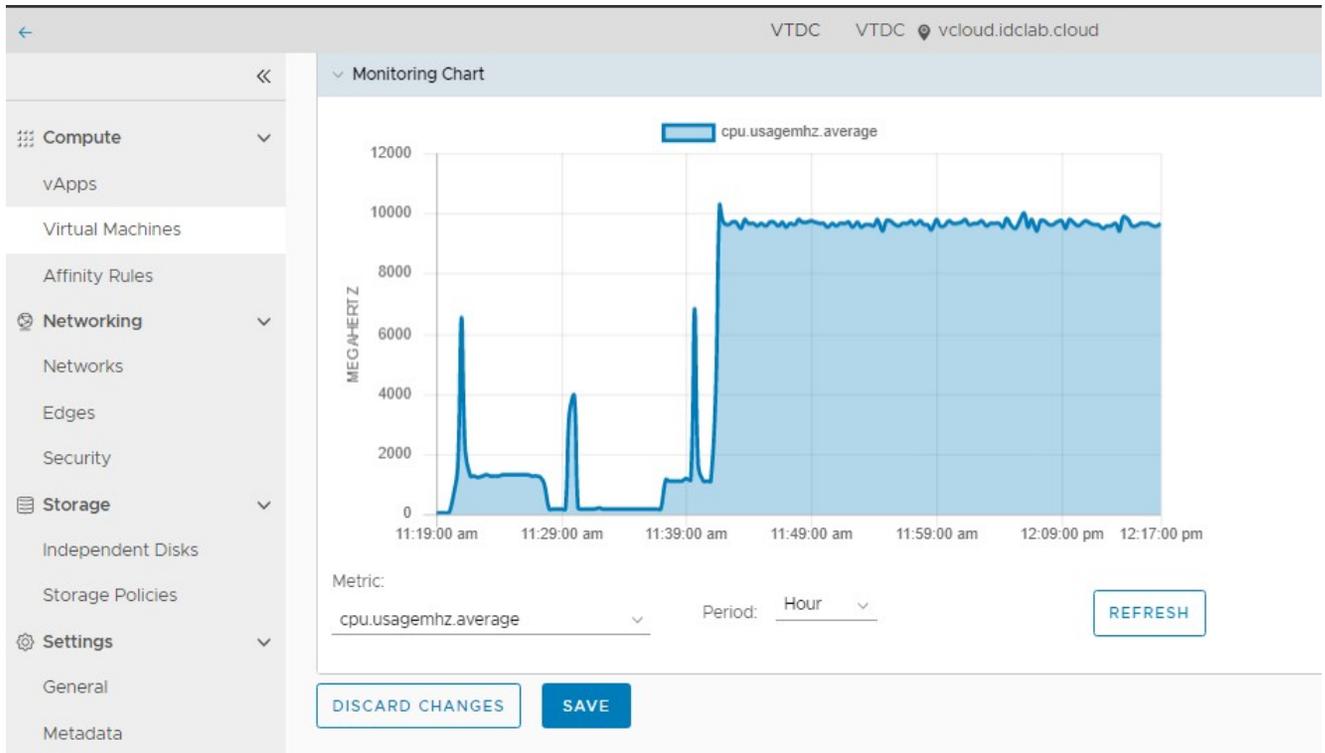
Then choose the metric (Period) and the period (Period) to track. Show free Cloudwatch package supporting cycles ½ Hour, Hour, Day, Week.

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-