

2. How to Create New VM?



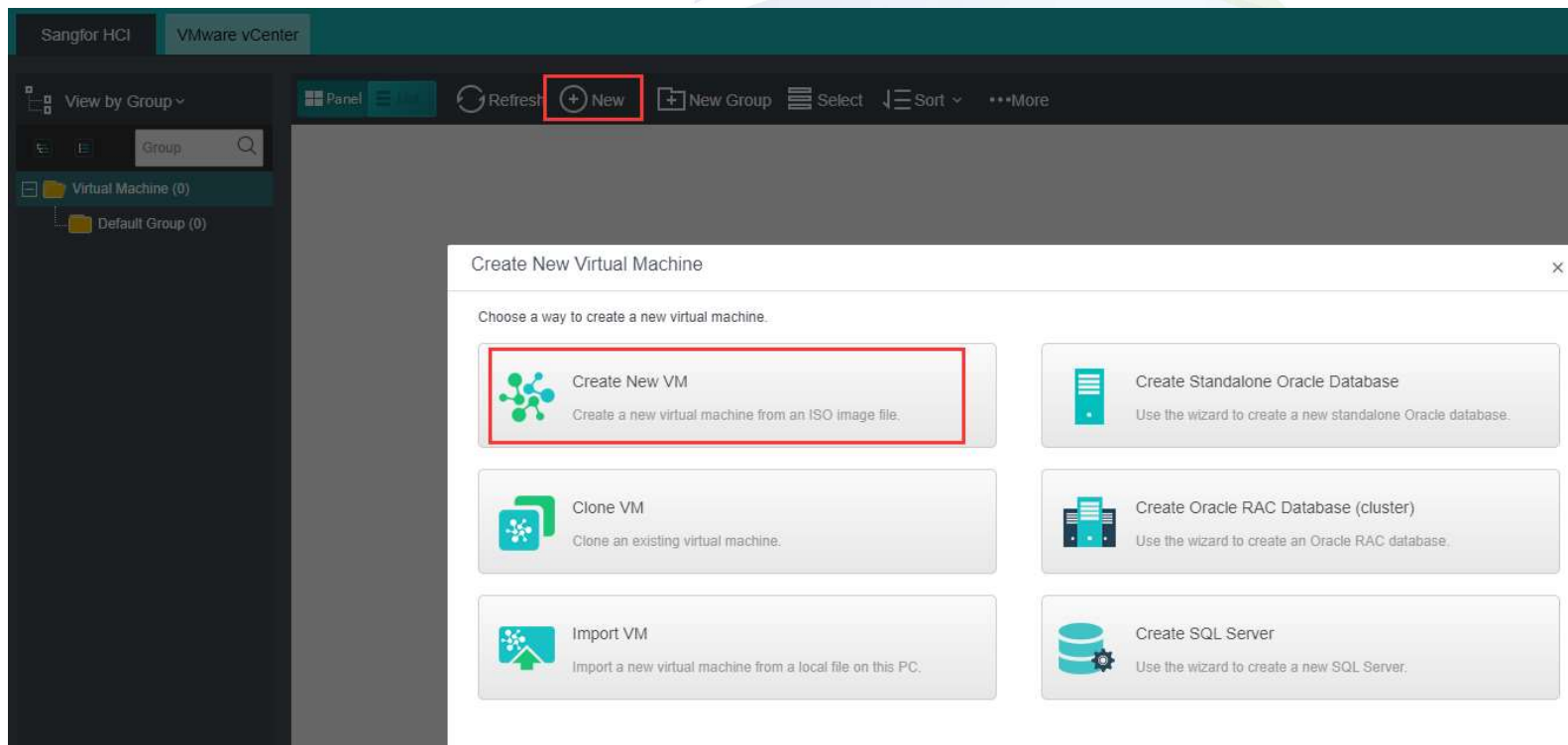
SANGFOR
深信服科技

How to Create New VM?



Create New Virtual Machine

Path: Compute > New > Create New Virtual Machine





How to Create New VM?

Configure the VM Specification




Create New Virtual Machine


Name:

Group:

Tag: 


HA: ☒ Migrate VM to another node if the node fails [HA Settings](#)

Datastore:

Storage Policy: 


Run Location:


Guest OS:


High Priority: ☐ Guarantee resources for VM operation and recovery 


Configuration **Advanced**

Standard: ☐ Low ☒ Typical ☐ High

 Processor 8 core(s)

 Memory 16 GB

 Disk 1 120 GB

 CD/DVD 1 None

Cores:

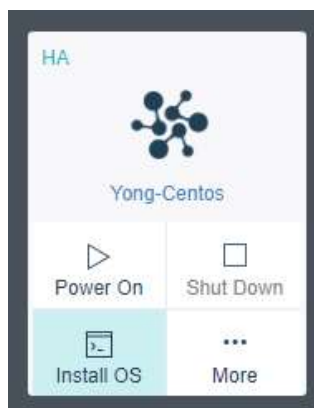
Virtual Sockets:

Cores Per Socket:

How to Create New VM?

Install OS in VM

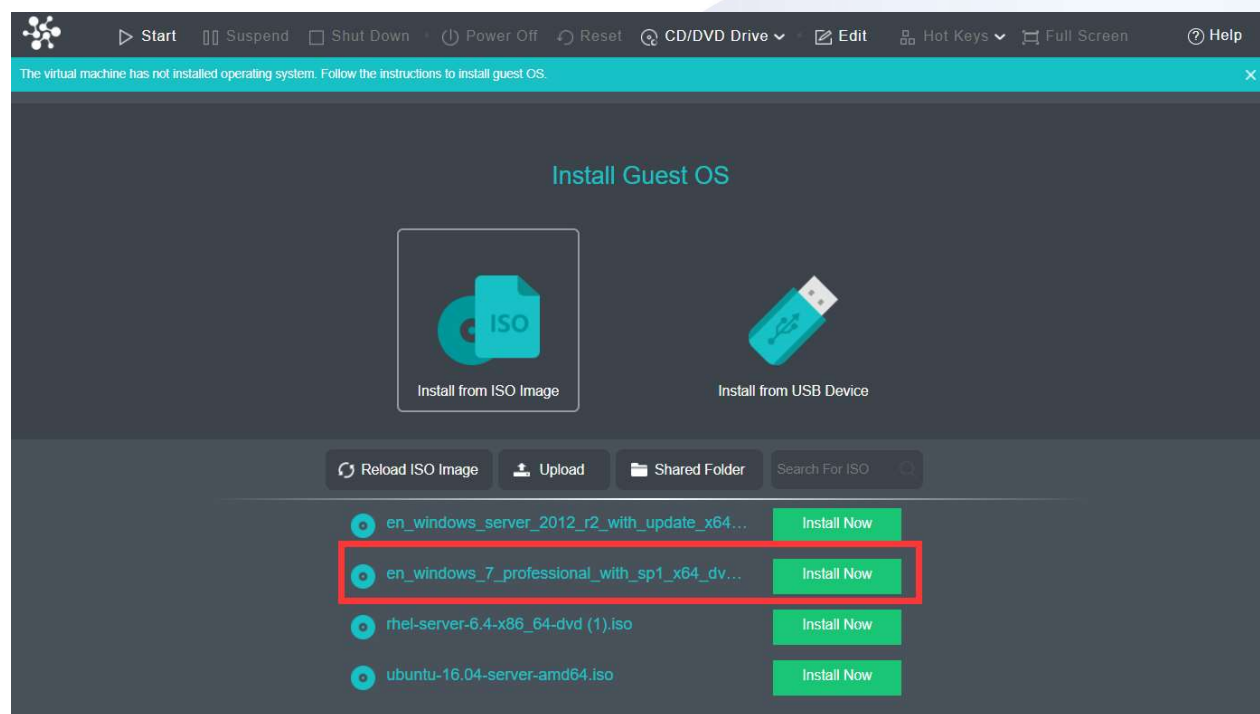
Click “Install OS” to begin install OS ,as show as below:



How to Create New VM?

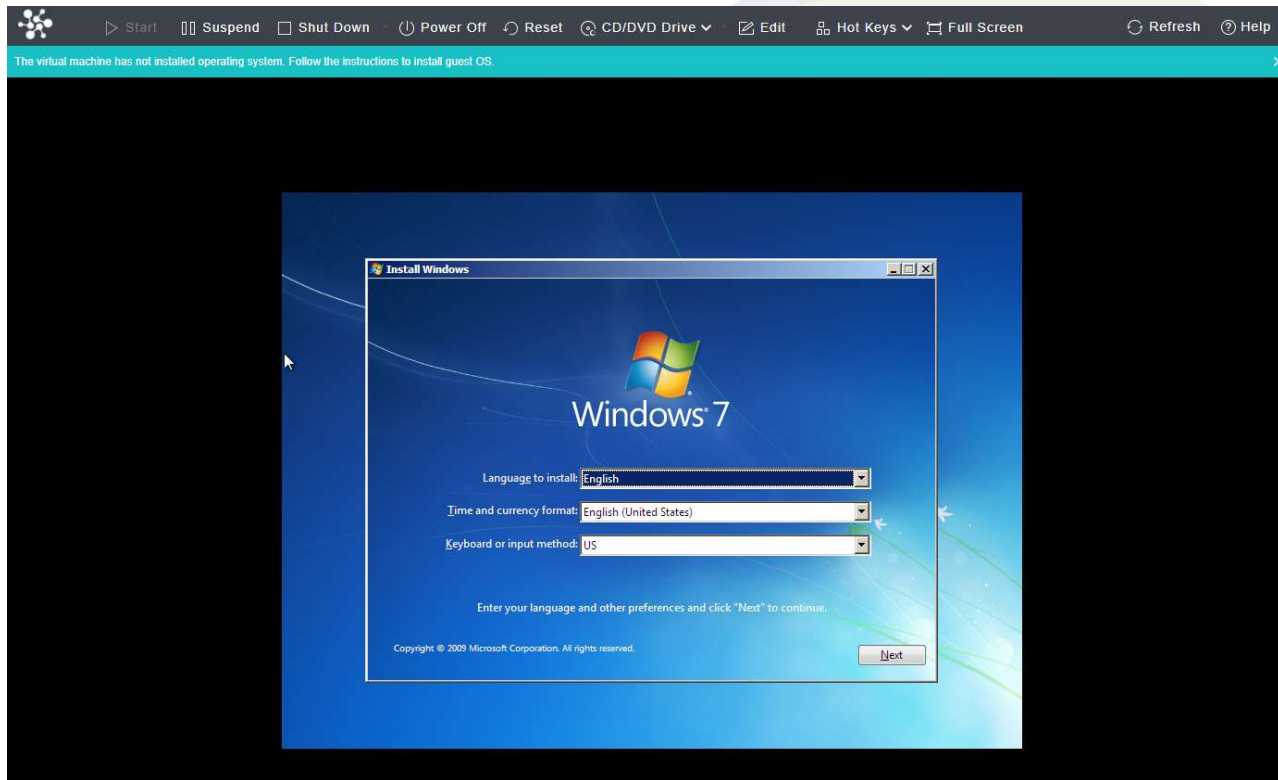
Select ISO File

If the page does not have the OS image file you need to install, you can choose to upload the OS file first by clicking "Upload".



How to Create New VM?

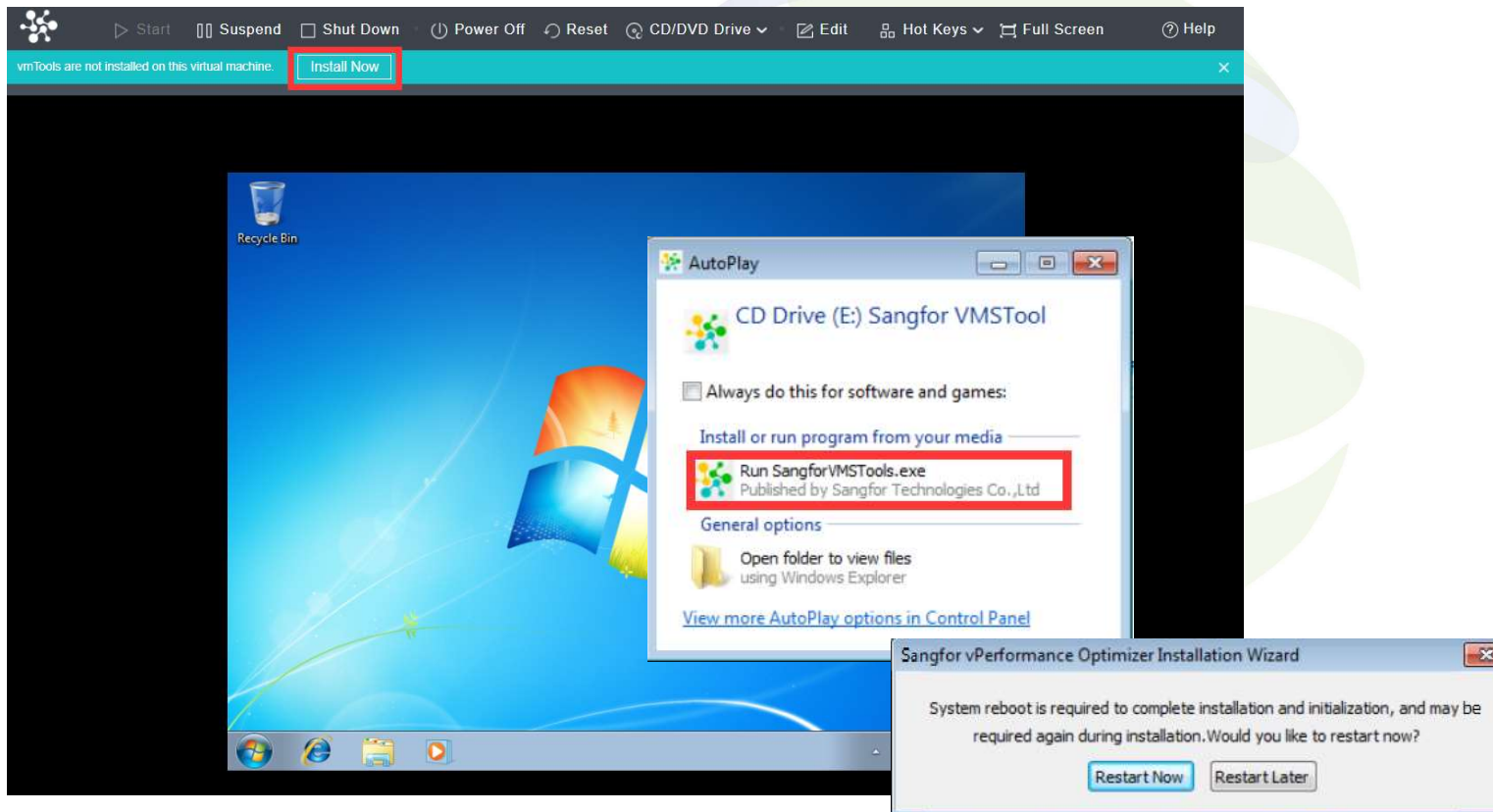
Operating System Installation



How to Create New VM?

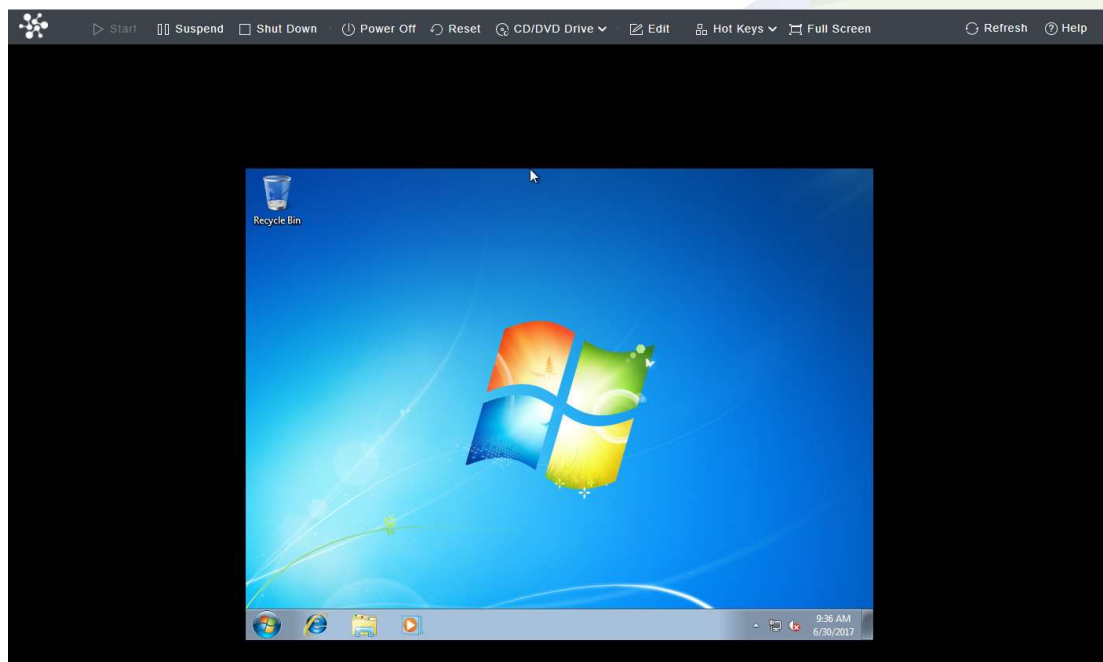


Install Sangfor vmTools



How to Create New VM?

Ready to Use



Note:

Guest OS	Compatibility
Windows 2003	windows 2003 sp2 below version not support vmtool
Windows 2000	Not support vmtool
WindowsXP sp3	Not support vmtool
Kernel version lower than 2.6	Not support kernel lower than 2.6.25
freeBSD/openBSD	Not support vmtool

1. Summary of Server Migration

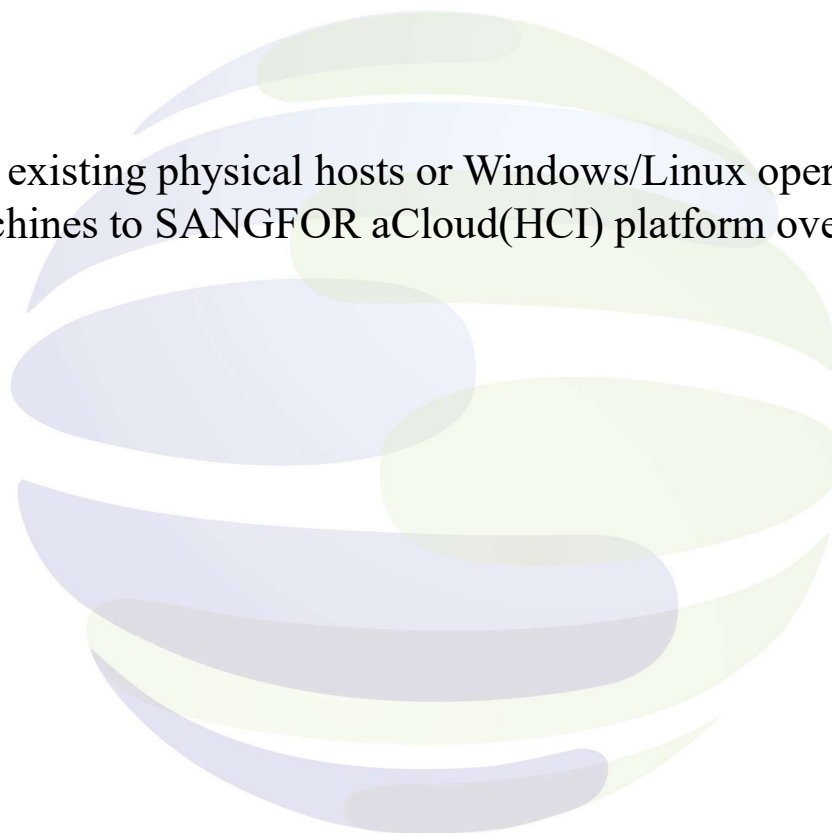


What is Server Migration?



Basic Concept

Migrate physical hosts - clone existing physical hosts or Windows/Linux operating systems on VMware or Citrix Virtual Machines to SANGFOR aCloud(HCI) platform over the network.



Summary of Server Migration



Migration Classification — Based on Migration Server Types

➤ **P2V Windows system migration**

P2V Windows system migration is to clone the physical host with Windows operating system to the SANGFOR aCloud(HCI) platform through the network.

➤ **P2V Linux migration**

P2V Linux system migration is to clone the physical host with LINUX operating system to the SANGFOR aCloud(HCI) platform through the network.

➤ **V2V system migration**

The V2V system migration is to clone the VMWare or Windows/Linux operating system on the Citrix Virtual Machine to the SANGFOR aCloud(HCI) platform through the network.

Summary of Server Migration



Migration Classification — Based on Migration Tools Types

➤ **ISO migration**

Booting a migration using an ISO image.

Suitable for Linux and Windows operating systems, the migration process needs to restart the server, which will cause business interruption.

➤ **Windows converter migration**

Running 'Sangfor converter migration' on existing host.

Only for Windows operating system and this migration method will not interrupt business and can not support the server of 32-bit CPU.

➤ **VMware migration**

The vSphere API is determined as a web service, running on VMware vCenter systems. VMware allows third party to communicate with vCenter through the API provided. While Sangfor HCI 5.8.3 (and above version) utilized VMware API to integrate basic management function of vCenter in a better and friendly user interface.

So we can migration server from vCenter to aCloud(HCI) by vCenter management function.

Summary of Server Migration



Migration Network Requirement

- Physical server must be able to communicate with Sangfor aCloud(HCI) Cluster IP
- Only 2 migration tasks can be done simultaneously
- Migration process is using management interface
- Migration will generate high traffic in **management** interface
- Following are the ports required to be allowed to ensure the migration success
- By default, these port will be disabled in HCI6.3.0. Make sure you have enable the port under **System > Port management** before migration.

System > Port Management					
✓ Enable ✖ Disable ↻ Refresh					
<input type="checkbox"/>	Service	Port	Protocol	Description	Status
<input type="checkbox"/>	Host discovery	4099	udp	Port for new node discovery that aims to discover nodes with Sangfor HCI installed	✓
<input type="checkbox"/>	VM migration	7001-7019	tcp	Port for VM migration within a cluster or across clusters. It will be automatically enabled after being centrally managed by SCP.	✓
<input type="checkbox"/>	P2V migration	4000-4010,10809-10900	tcp/udp	Port for processing migration requests and transmit data during executing P2V tasks	✖

Summary of Server Migration



Migration Server Requirements — Windows System

Hardware	Requirement	Description
CPU	Only support 64-bit AMD or Intel CPU	
Memory	More than 3GB	
Network Card	At least one 1GB NIC	Able to connect aCloud(HCI) system
Hard Disk	aCloud(HCI) platform available disk space is greater than the disk space usage in the system to be migrated.	Support disk types: 1. Simple volume: supports optimized copy 2. Dynamic disk - simple volume: need to use IOS to migrate, support optimized copy 3 Dynamic disk (spanned volume, RAID-5 volume): need to use ISO to migrate, does not support optimized copy

Summary of Server Migration



Migration Server Requirements — Linux System

Hardware	Requirement	Description
CPU	Only support 64 bit AMD or Intel CPU	32 bit CPU need special treatment
Memory	More than 3 GB	
Network Card	At least one 1GB NIC	Able to connect HCI system

Summary of Server Migration



Migration Speed and Time

The following table is the actual speed test result.

System to be migrated: System installed with SSD

Target system: Three aCloud(HCI) integrated machines set up two copies of virtual storage aSAN environment

Migration size: 60G

Migration environment: 1GB network

Migration method	Average speed of migration	Estimated time
ISO migration	60MB/s	17 minute
Windows converter migration	60MB/s	17 minute

Summary of Server Migration



Precautions

- 1. Windows Converter tools will automatically install vmtool on the migrated server after the migration process**
2. Linux VM does not support live migration
3. It is recommend to use the migration tools based on the current HCI version