## How to copy and manage VirtaulMachine

Author: Will Cai

Revison History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Operator | Comments |
| 0.1 | 2013/05/07 | Will Cai | Init version |
| 0.2 | 2013/11/07 | Will Cai | Modify the doc based on scripts improved |
| 0.3 | 2014/11/24 | Will Cai | Modify commands name and improve some function |

### Create a temple VirtualMachine

**If you want to create a template VirtualMachine for VMs copying and other management, total 4 steps**

#### 1.Create a temple VirtualMachine

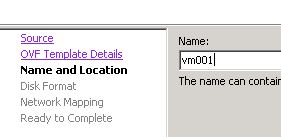
File---Deploy OVF Template

Source---Choose correct ova----Next

OVA Template Details---Next

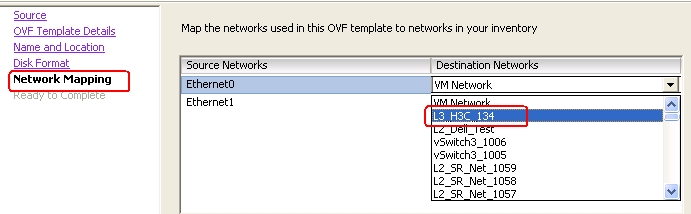
Name and Location---Type ‘vm001’

(If we want to use script to copy the VM and manage their aciton, we should follow the example’s format, such as ‘xxx001’ ) for the temple VirtualMachine such as below---Next



Disk Format---Next

Network Mapping---Choose correct Network for eth0 and eth1 (**Be careful of the eth0, should not be public network**)---Next

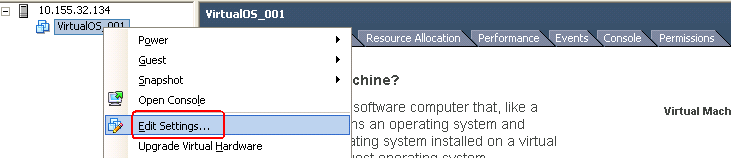


Ready to complete---Finish

#### 2.Modify VirtualMachine’s parameters

**Add serial port, if you should use serial port to control the vms**

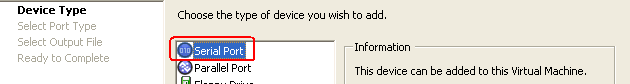
Right click your created VirtualMachine---choose ‘Edit Settings’



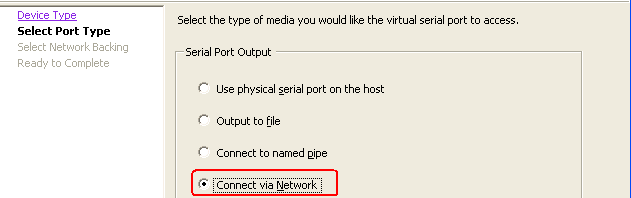
Click ‘Add’



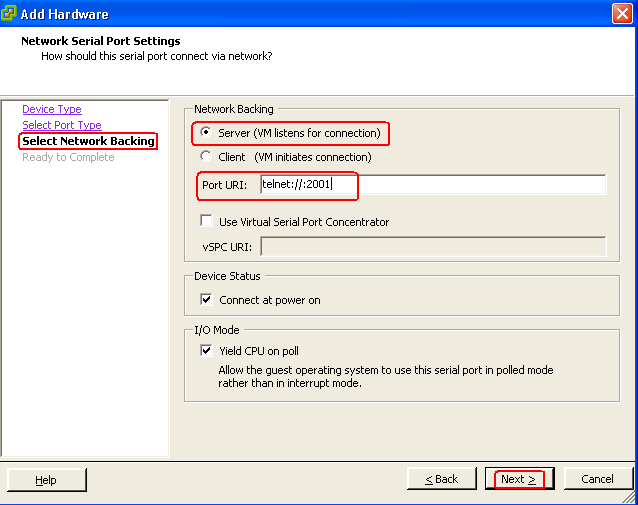
Click ‘Serial Port’---Next



Select Port Type---Choose ‘Connect via Network’---Next

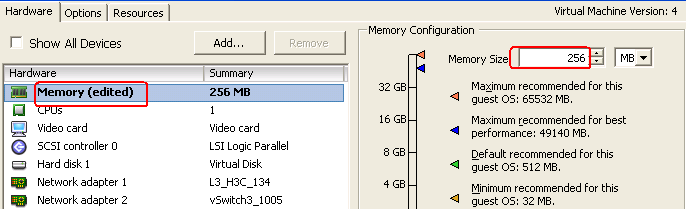


Select Network Backing---Choose ‘Server (VM listens for connection)’---Type ‘telnet://:2001’ in Port URI---Next---Finish



**Modify memory if need**

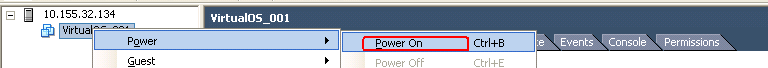
Click ‘Memory’---Type 256



Click OK to confirm modify

#### 3.Active VirtualMachine and update to the image you want if need(Aerohive Product only, other os can skip this step)

**Power on your VirtualMachine firstly**



**Login VirtualMachine and active it**

Login VirtualMachine via serial port(command is ‘telnet 10.155.32.134 2001’ here)

well@well-virtual-machine:~$ telnet 10.155.32.134 2001

Select one of the following options:

1. Configure network settings

2. Enter the activation code

3. Shut down

Enter option <[1] 2 or 3>:2

Enter Activation Code

--------------------

Use an HTTP proxy to access the license server?<yes|[no]>:no

Enter the HiveOS Virtual Appliance activation code (4 to 5 chars):A3rO!5#

Enter the HiveOS Virtual Appliance serial number (14 chars):12345678901234

The HiveOS Virtual Appliance serial number 12345678901234 has been installed

successfully. To check it later, you can enter the "show hw-info" command.

Do you want to reboot now to activate the changes?<[yes]|no>:no

**Upgrade version**

**If it’s sign ova, execute commands’’’ show system command "/opt/ah/etc/ah\_delete\_sigfile" ‘’’**

AH-437d92#save image scp://root@10.68.136.253:/home/qatest/cvg-ap-jan28.img

Do you really want to update image?(Y/N)y

Warning: Permanently added '10.68.136.253' (ECDSA) to the list of known hosts.

root@10.68.136.253's password:

cvg-ap-jan28.img 100% 19MB 19.2MB/s 00:01

Getting image version and ts information...success.

Parsing boot file...success.

Check if need to upgrade...Yes.

Starting programming kernel image...success.

Starting programming app image...success.

Renew boot file...success.

Image upgrade success.

AH-437d92#reboot

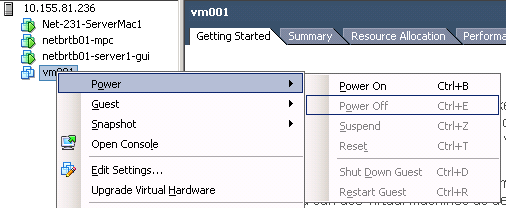
Do you really want to reboot? (Y/N)y

Rebooting virtual machine...

AH-437d92#2013-02-18 02:10:45 alert ah\_scd: System is rebooting ...

Wait Virtual OS up for upgrade complete

#### 4.Power off the VirtualMachine for VM copying process(This step is critical, if the vm is up, we cannot copy the vm successfully)



### Copy VirtualMachine

#### 1. Copy VirtualMachine’s preparation

Before copy process, you should confirm your template VirtualMachine’s status:

**a. Power off;**

b. Serial port had been correctly configured; (0-1024 is reserves serial port, cannot be used for network connect, recommend the number start from 2001);

c. Memory had been modified to 256M;

d. Eth0&1’ network had been correctly configured; (especially eth0, should not be linked to public network);

e. The VirtualMachine had been active and upgraded to the version you want already if need;

#### 2. Copy VirtualMachine via script

Login your linux server which has been checked out the code from my github url firstly, my environment’s scripts path is as below:

root@Linux227:/home/will/git/VMware/scripts# pwd

/home/will/git/VMware/scripts

**For example:**

**If we want to copy 5 vms, such as vm002-vm006 on blade server 10.155.81.236 which has been created vm001 already.**

we can use the cli as below:

***python vm\_copy.py -i '10.155.81.236' --parameters vm.src=vm001 vm.dst=vm002-vm006 --debug info -l /tmp/vm\_copy.log***

### Manage VirtualMachine on VMware level

* **Power on vm002-vm006**

*python vm\_poweron.py -i '10.155.81.236' --parameters vm.name=vm002-vm006 --debug info -l /tmp/vm\_poweron.log*

* **Power off vm002-vm006**

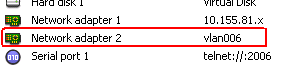
*python vm\_poweroff.py -i '10.155.81.236' --parameters vm.name=vm002-vm006 --debug info -l /tmp/vm\_poweroff.log*

* **Delete vm002-vm006**

*python vm\_del.py -i '10.155.81.236' --parameters vm.name=vm002-vm006 --debug info -l /tmp/vm\_del.log*

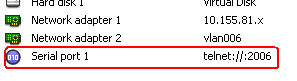
* **Set vlan002-vlan006 to the eth1 of vm002-vm006(need reboot vm to take effect)**

*python vm\_sub.py -i '10.155.81.236' --parameters vm.name=vm002-vm006 vm.is\_eth1=true vm.eth1=vlan002-vlan006 --debug info -l /tmp/vm\_sub.log*



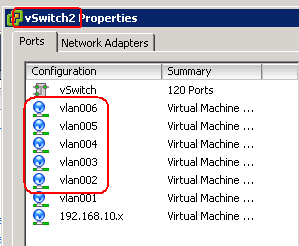
* **Add serial port 2002-2006 to vm002-vm006 for remote control(need reboot vm to take effect)**

*python vm\_sub.py -i '10.155.81.236' --parameters vm.name=vm002-vm006 vm.is\_serial=true vm.serial=2002-2006 --debug info -l /tmp/vm\_sub.log*



* **Add vlan002-vlan006 on vswitch2**

*python vm\_vlanadd.py -i '10.155.81.236' --parameters vm.vlan=vlan002-vlan006 vm.vswitch=vSwitch2 --debug info -l /tmp/vm\_vlanadd.log*



* **Delete vlan002-vlan006 on vswitch2**

*python vm\_vlandel.py -i '10.155.81.236' --parameters vm.vlan=vlan002-vlan006 vm.vswitch=vSwitch2 --debug info -l /tmp/vm\_vlandel.log*