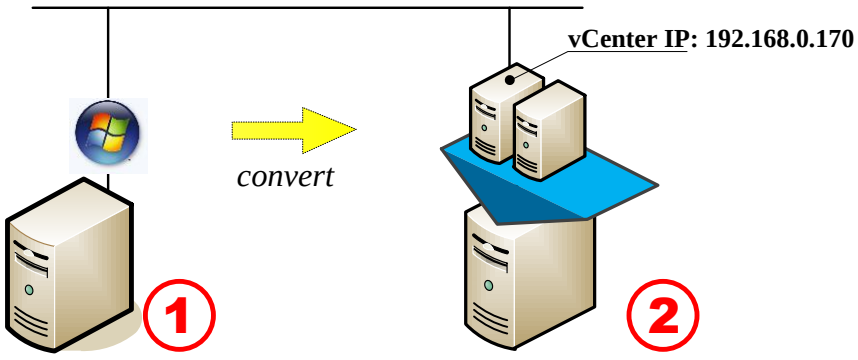
VMware Converter 5.1 P2V 转换实战

一、需求环境情况

如图将“服务器①”内运行的 Windows Server2008 系统（hostname: Server1）迁移转换到“服务器②”成为虚拟机(VMware vCenter Infrastructure virtual machine 环境)。



SERVER 1

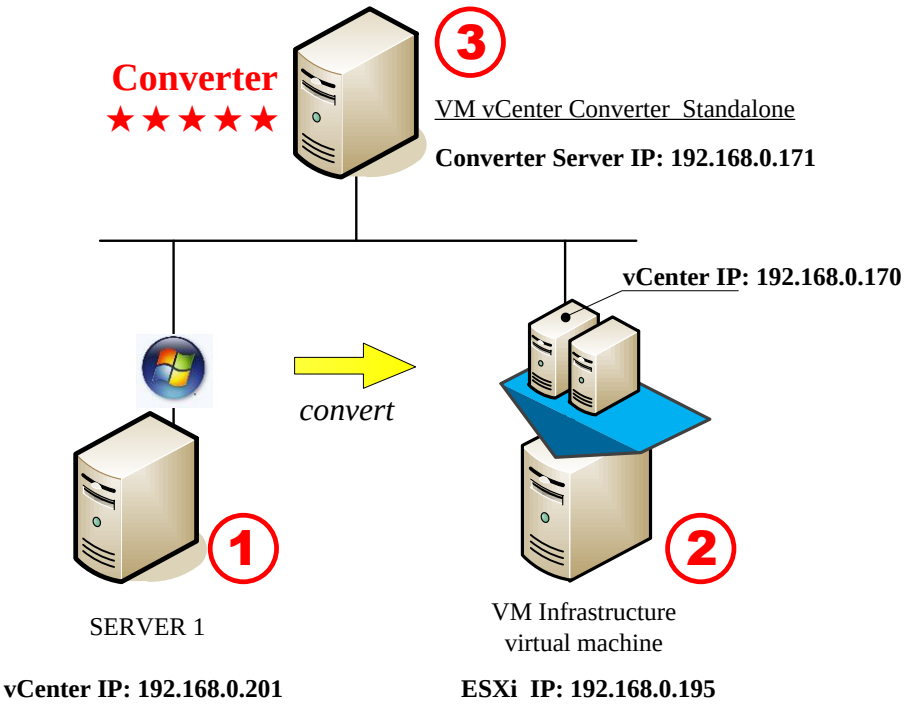
vCenter IP: 192.168.0.201

VM Infrastructure
virtual machine

ESXi IP: 192.168.0.195

二、迁移转换网络拓扑情况与操作原理说明

安装部署 VM vCenter Converter Standalone 转换工具到“服务器③”，“服务器③”可以是 1 台独立物理机服务器，也可以是虚拟环境中的 1 台虚拟服务器，或者安装于 vCenter 服务器系统上，本次采用的方式为在个人电脑内的 VMware Workstation 上的虚拟机部署 1 套 Windows Server 2008 并安装一套 VM vCenter Converter Standalone 转换工具作为 Converter Server。



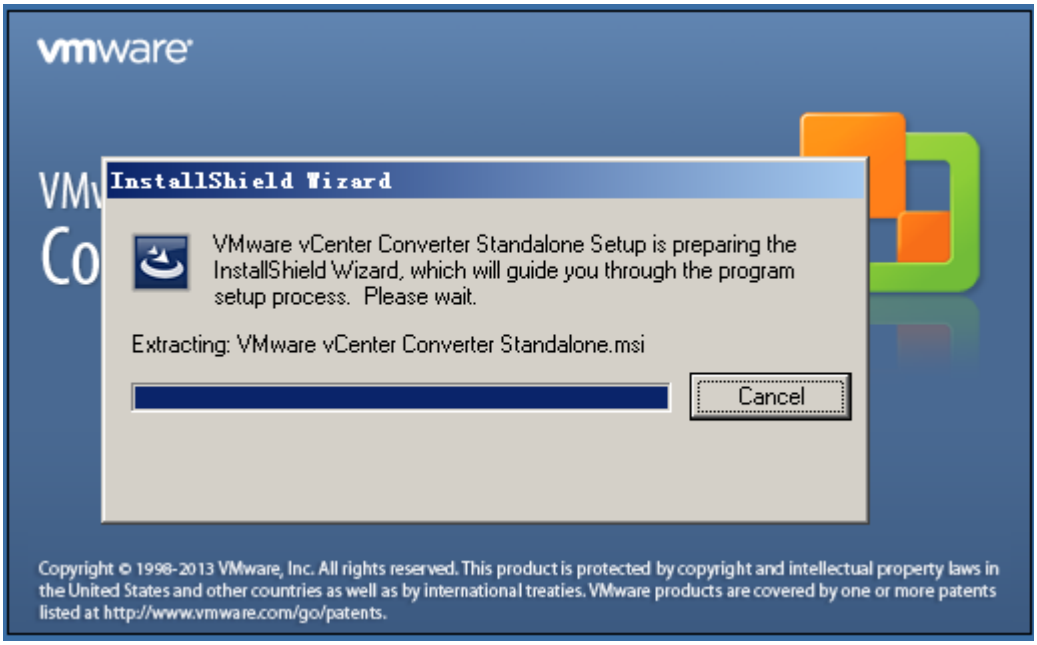
服务器①（IP : 192.168.0.201）：源服务器（待转换服务器），系统 Windows Server 2008

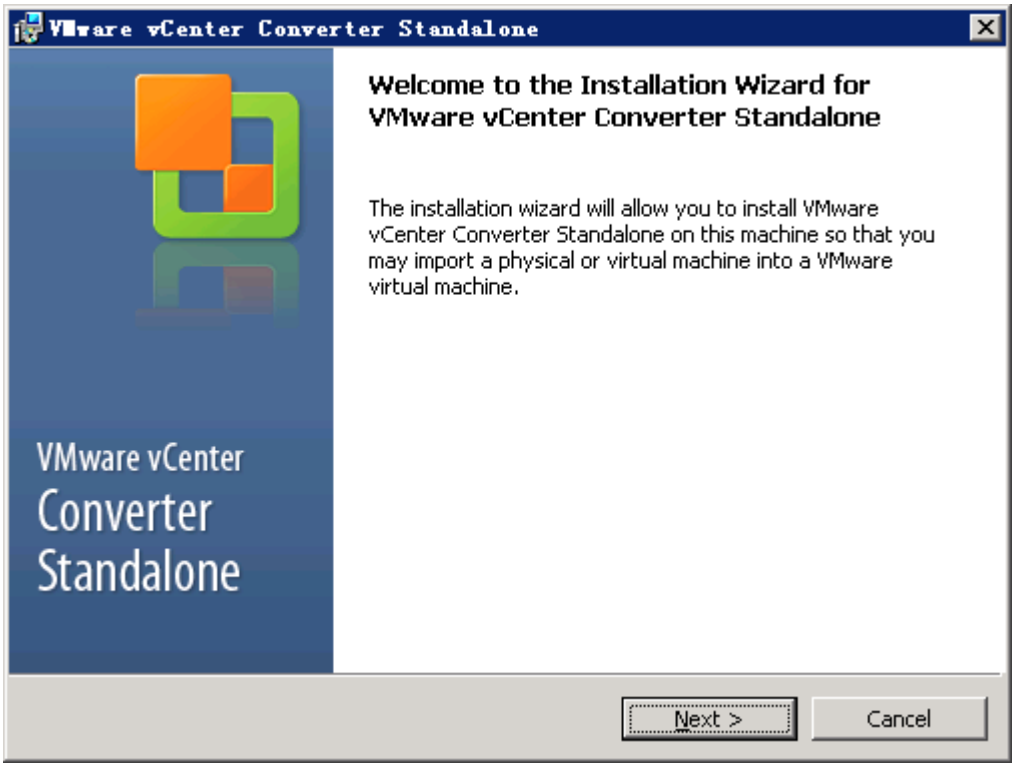
VCenter （IP : 192.168.0.170）：目标环境，转换后虚拟机会添加在 VCenter 管理的 ESXi 主机内

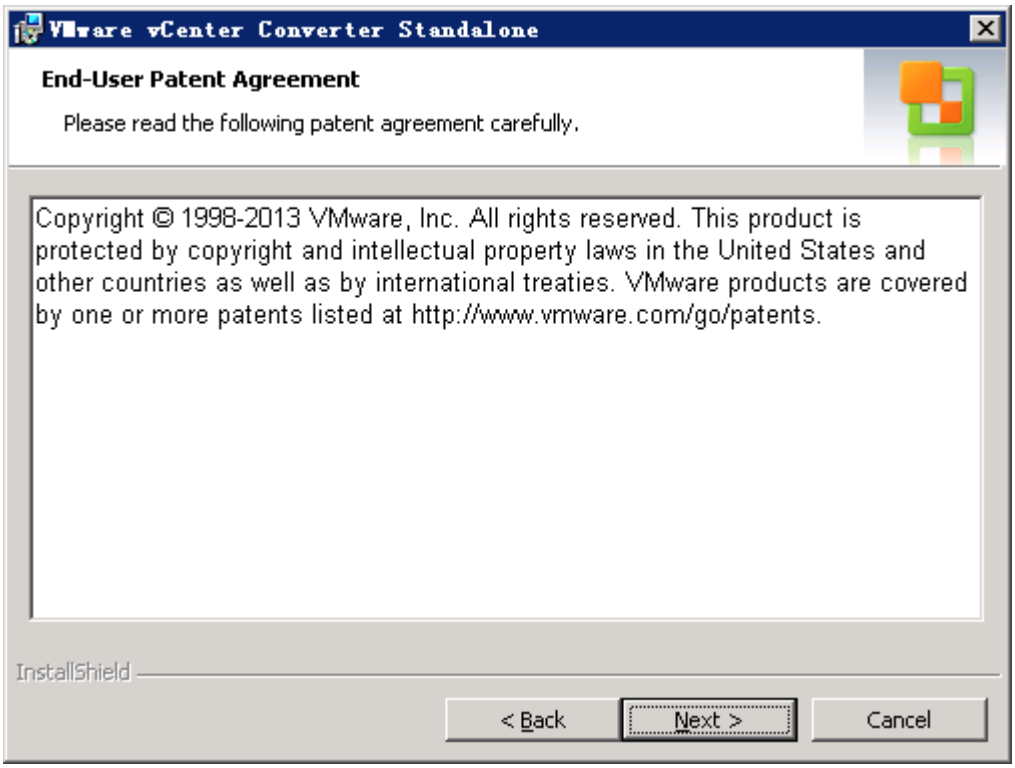
服务器③（IP : 192.168.0.171）：转换工具所在服务器设备，Converter 服务器

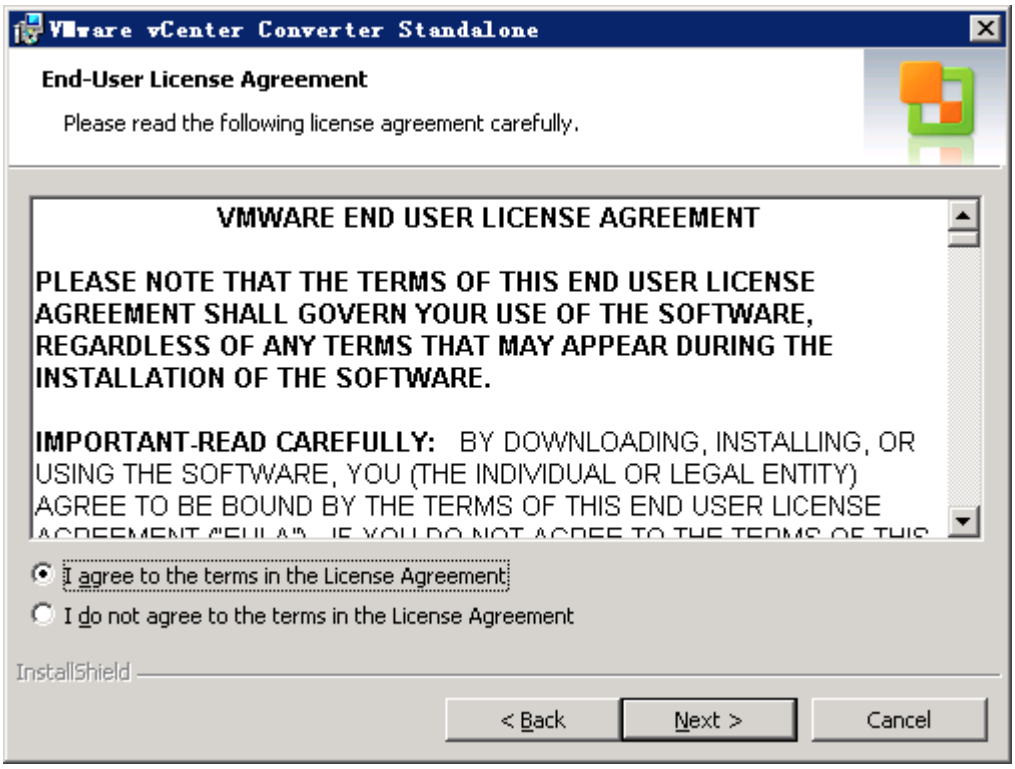
基本原理： 在“服务器③”系统中运行 Converter 工具，依照向导输入被转换服务器的 IP 与管理员用户与密码(源服务器需要暂时关闭防火墙与杀毒软件)，Converter 工具将会远程方式在源服务器上部署代理程序（Agent），部署完成后 Converter 工具将通过代理程序提取源服务器系统文件，通过 VCenter Server 注入到虚拟机环境，并建立对应的虚拟服务器。

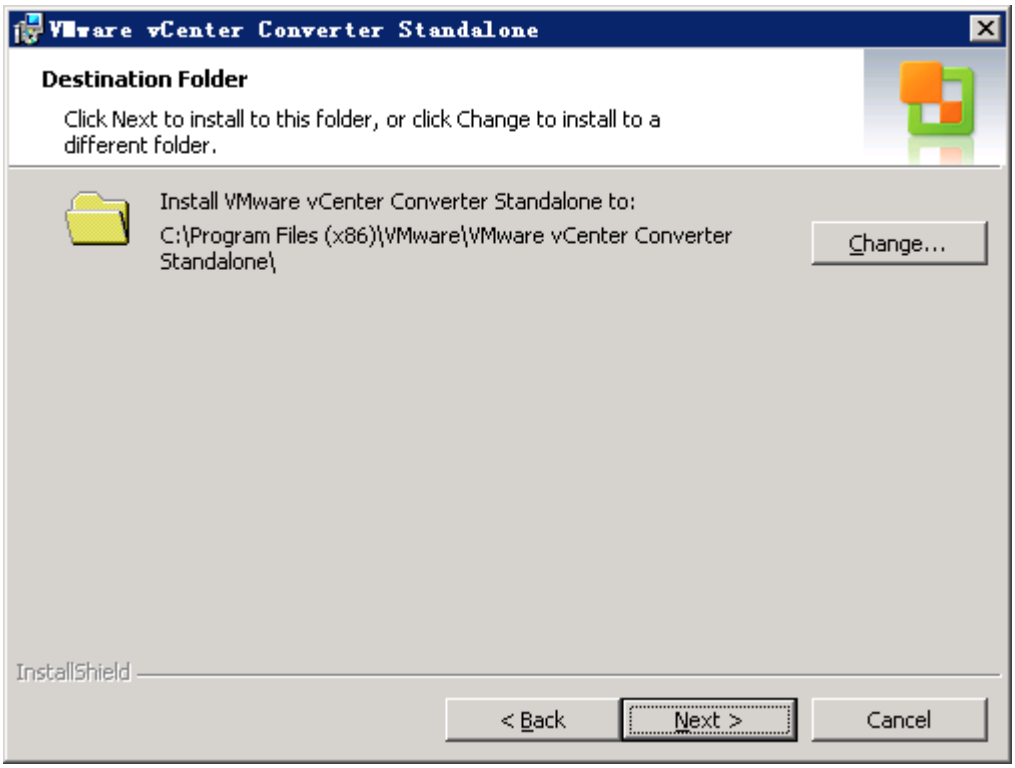
三、安装 Converter 工具

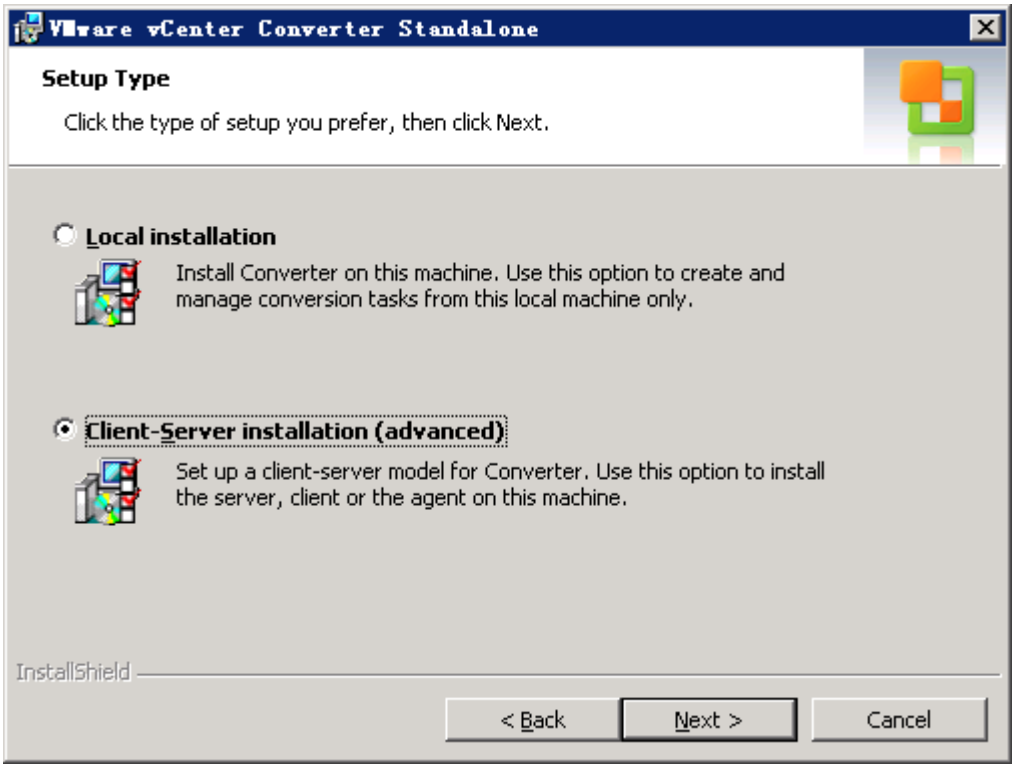


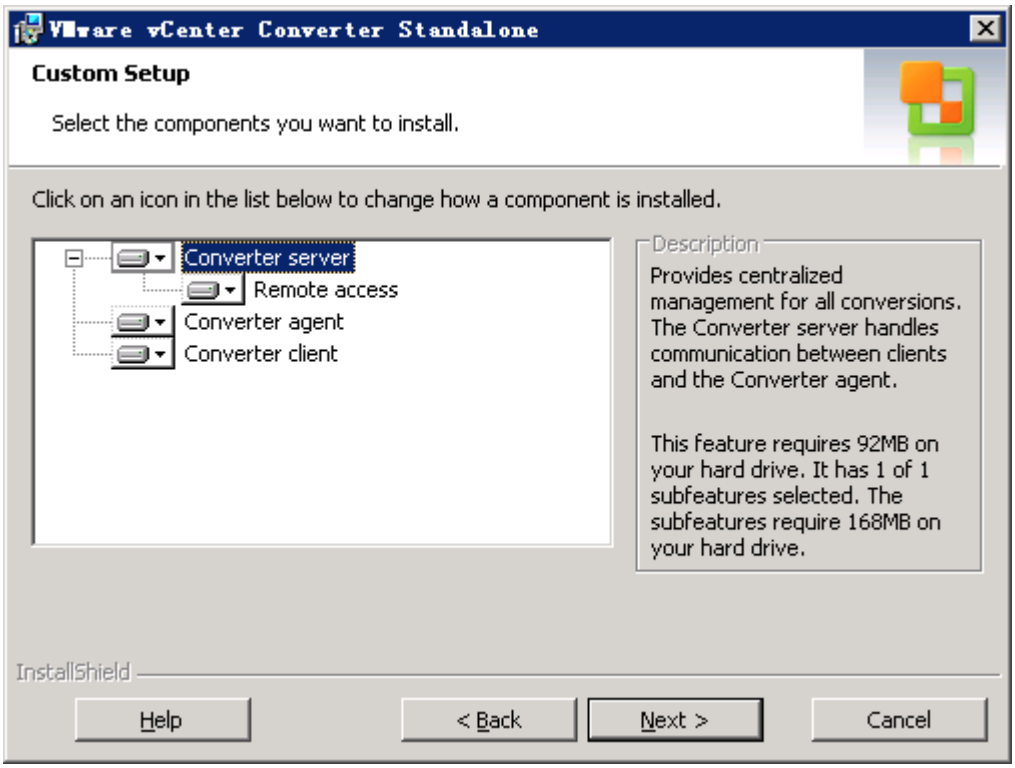


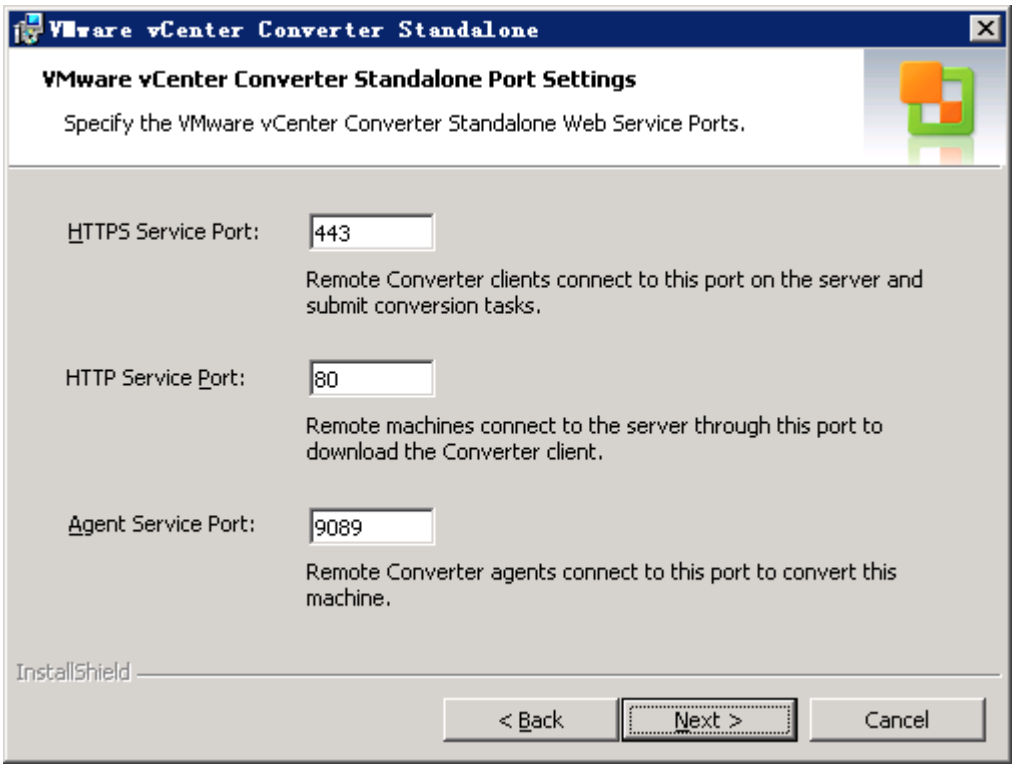

VMware vCenter Converter Standalone
End-User Patent Agreement
Please read the following patent agreement carefully.
Copyright © 1998-2013 VMware, Inc. All rights reserved. This product is protected by copyright and intellectual property laws in the United States and other countries as well as by international treaties. VMware products are covered by one or more patents listed at http://www.vmware.com/go/patents.
InstallShield
< Back
Next >
Cancel

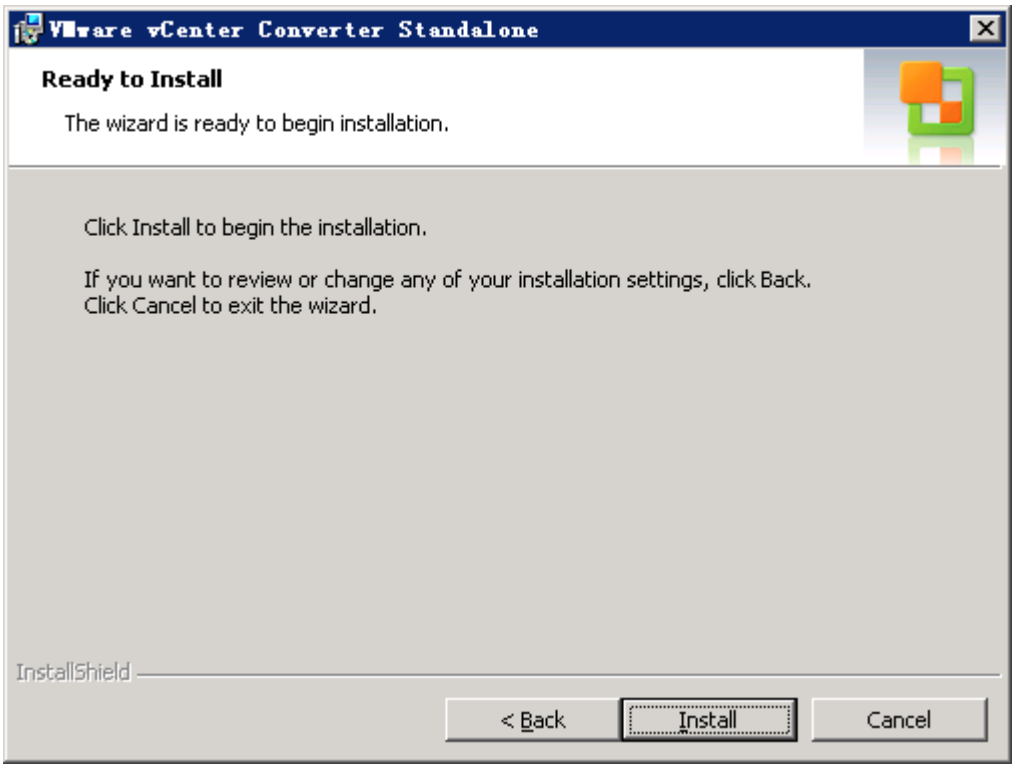

VMware vCenter Converter Standalone
End-User License Agreement
Please read the following license agreement carefully.
VMWARE END USER LICENSE AGREEMENT
PLEASE NOTE THAT THE TERMS OF THIS END USER LICENSE AGREEMENT SHALL GOVERN YOUR USE OF THE SOFTWARE, REGARDLESS OF ANY TERMS THAT MAY APPEAR DURING THE INSTALLATION OF THE SOFTWARE.
IMPORTANT-READ CAREFULLY: BY DOWNLOADING, INSTALLING, OR USING THE SOFTWARE, YOU (THE INDIVIDUAL OR LEGAL ENTITY) AGREE TO BE BOUND BY THE TERMS OF THIS END USER LICENSE
I agree to the terms in the License Agreement
I do not agree to the terms in the License Agreement
InstallShield
< Back
Next >
Cancel

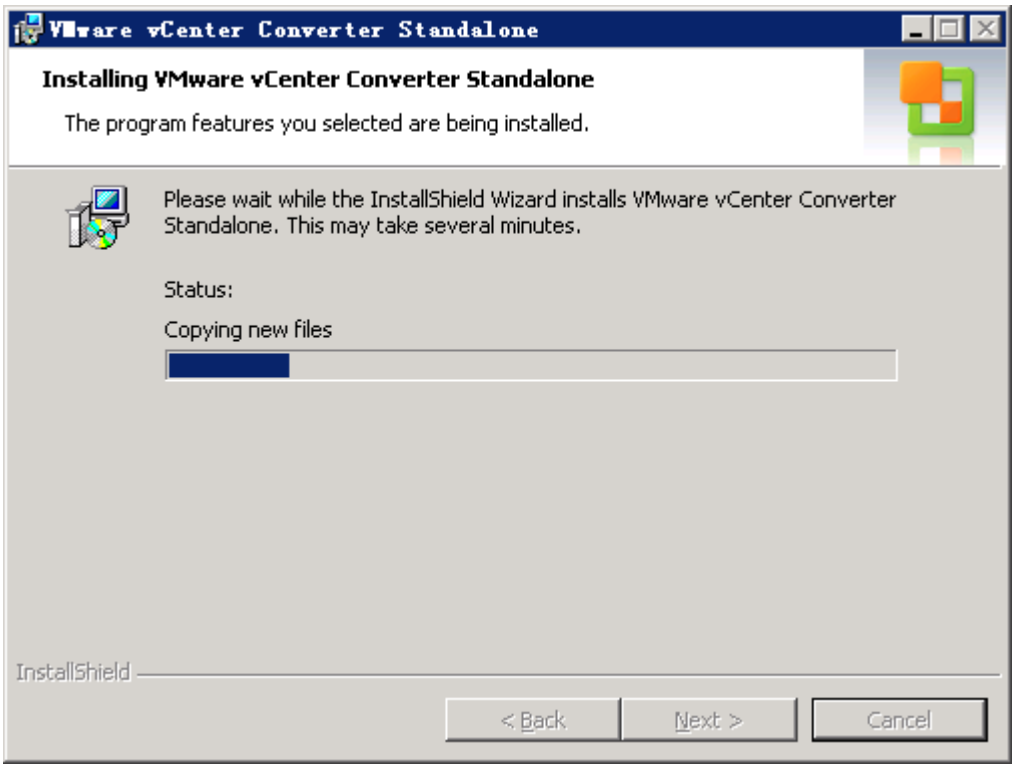

VMware vCenter Converter Standalone
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install VMware vCenter Converter Standalone to:
C:\Program Files (x86)\VMware\VMware vCenter Converter Standalone\
Change...
InstallShield
< Back
Next >
Cancel

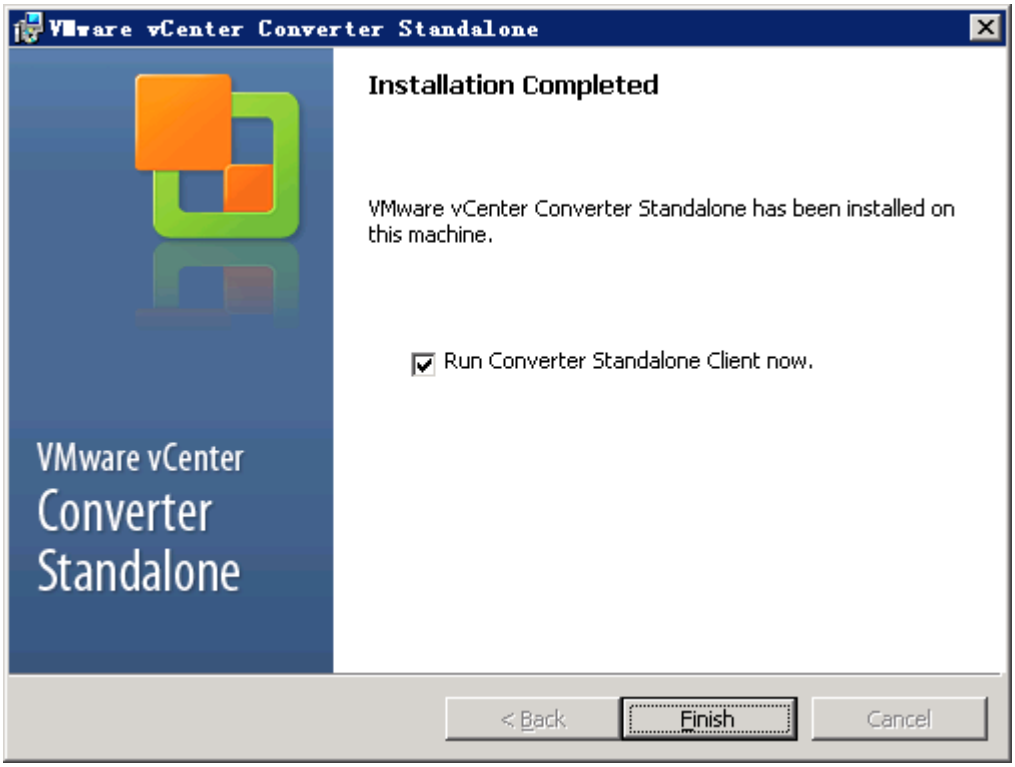

VMware vCenter Converter Standalone
Setup Type
Click the type of setup you prefer, then click Next.
Local installation
Install Converter on this machine. Use this option to create and manage conversion tasks from this local machine only.
Client-Server installation (advanced)
Set up a client-server model for Converter. Use this option to install the server, client or the agent on this machine.
InstallShield
< Back
Next >
Cancel


VMware vCenter Converter Standalone
Custom Setup
Select the components you want to install.
Click on an icon in the list below to change how a component is installed.
Converter server
Remote access
Converter agent
Converter client
Description
Provides centralized management for all conversions. The Converter server handles communication between clients and the Converter agent.
This feature requires 92MB on your hard drive. It has 1 of 1 subfeatures selected. The subfeatures require 168MB on your hard drive.
InstallShield
Help
< Back
Next >
Cancel

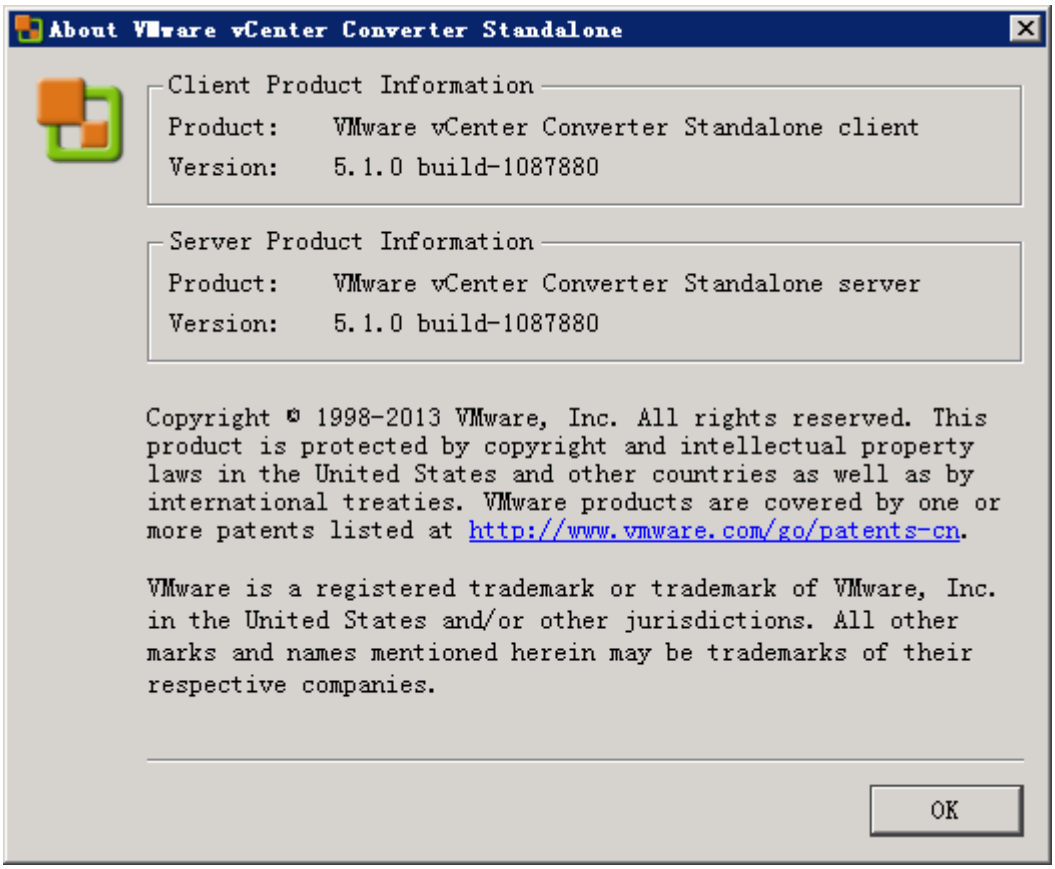

VMware vCenter Converter Standalone
VMware vCenter Converter Standalone Port Settings
Specify the VMware vCenter Converter Standalone Web Service Ports.
HTTPS Service Port:
443
Remote Converter clients connect to this port on the server and submit conversion tasks.
HTTP Service Port:
80
Remote machines connect to the server through this port to download the Converter client.
Agent Service Port:
9089
Remote Converter agents connect to this port to convert this machine.
InstallShield
< Back
Next >
Cancel


VMware vCenter Converter Standalone
Ready to Install
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back.
Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

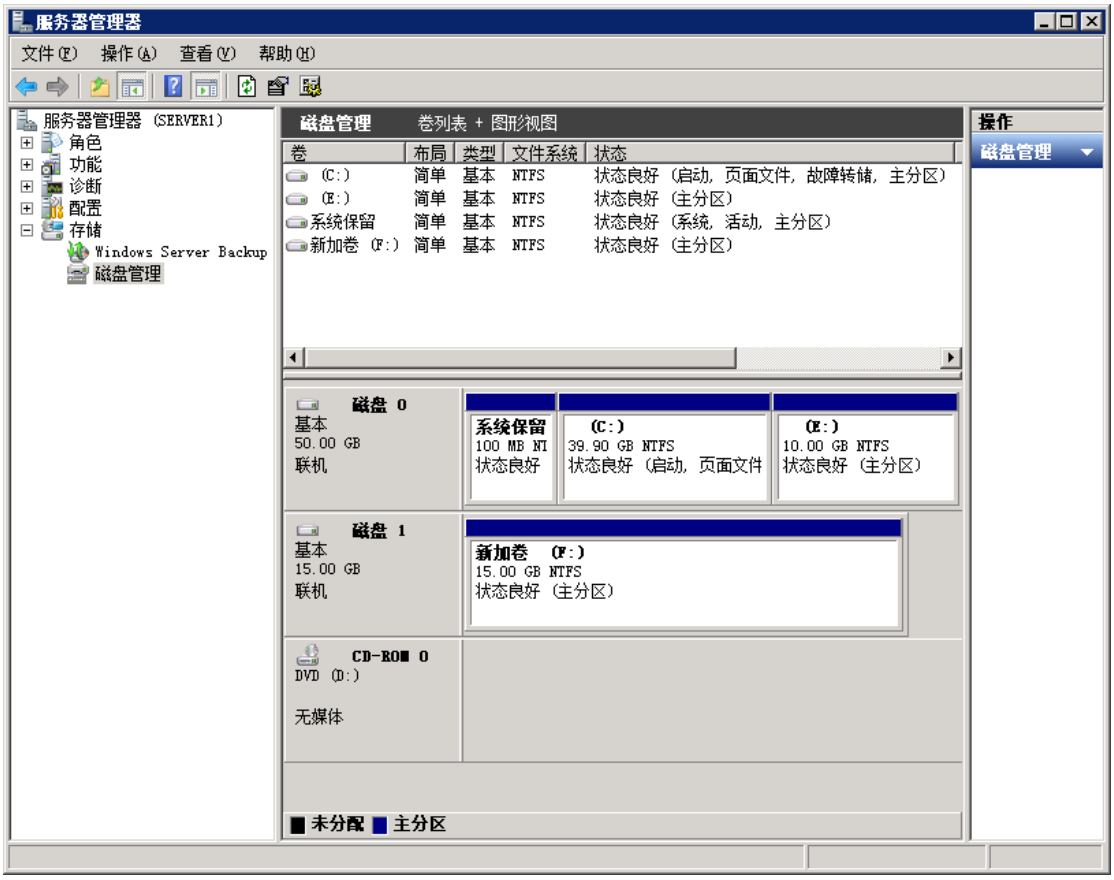

VMware vCenter Converter Standalone
Installing VMware vCenter Converter Standalone
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs VMware vCenter Converter Standalone. This may take several minutes.
Status:
Copying new files
InstallShield
< Back
Next >
Cancel



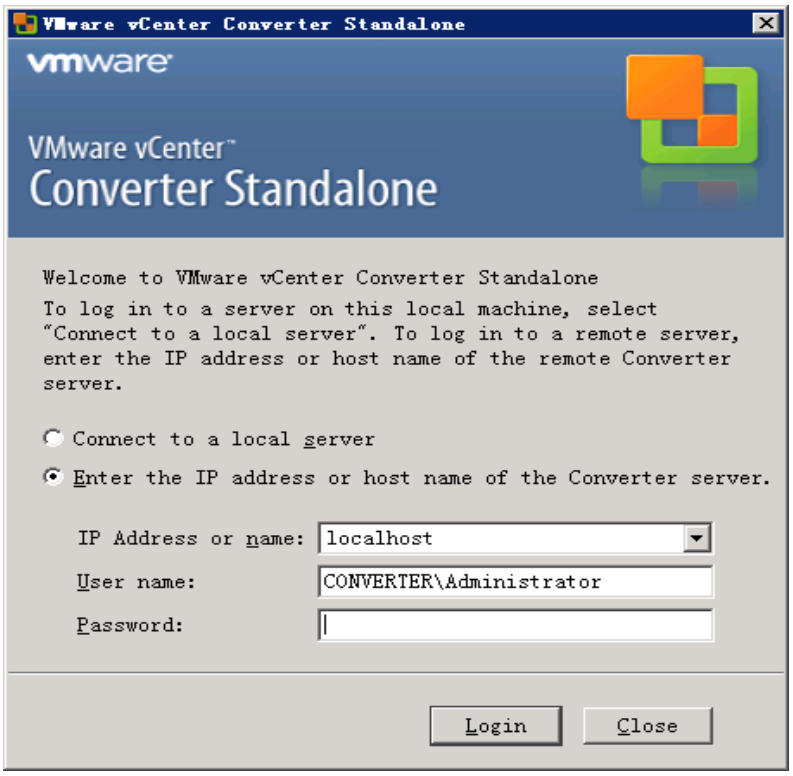
安装后可通过帮助查看版本信息



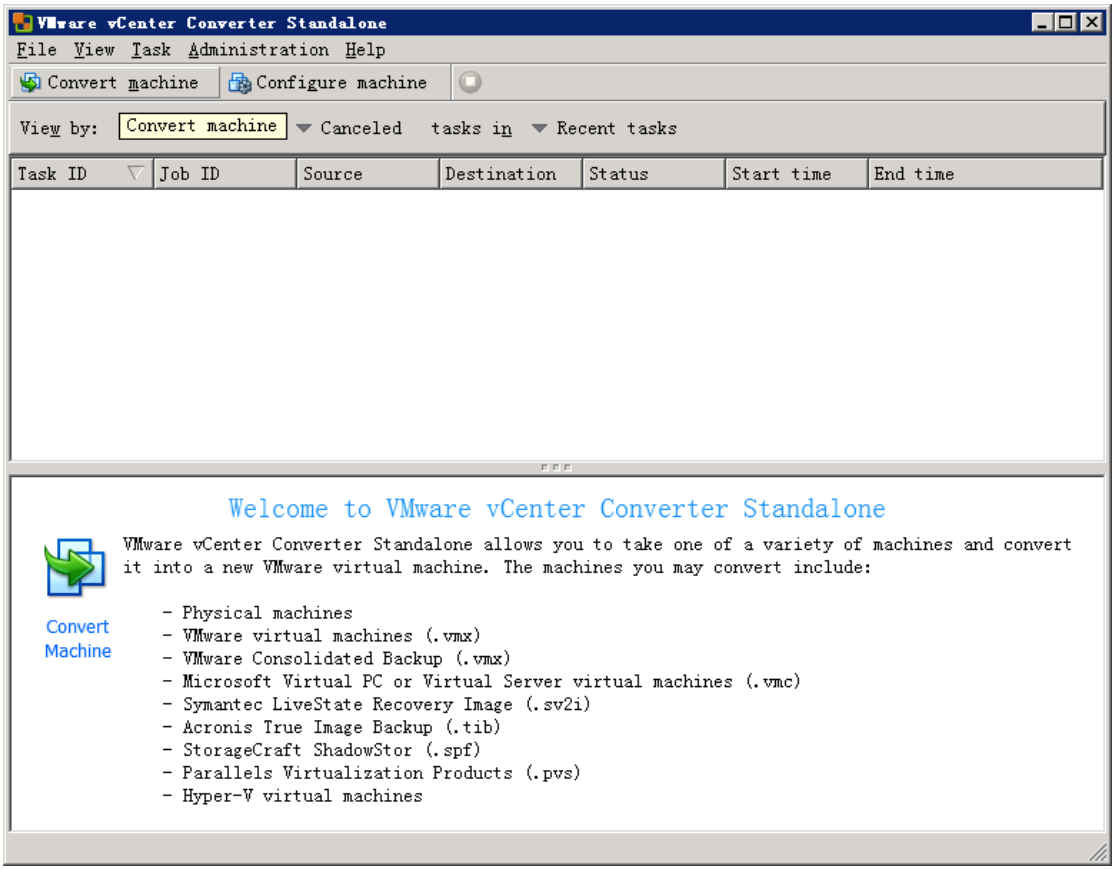
三、待转换服务器（Server1）系统情况



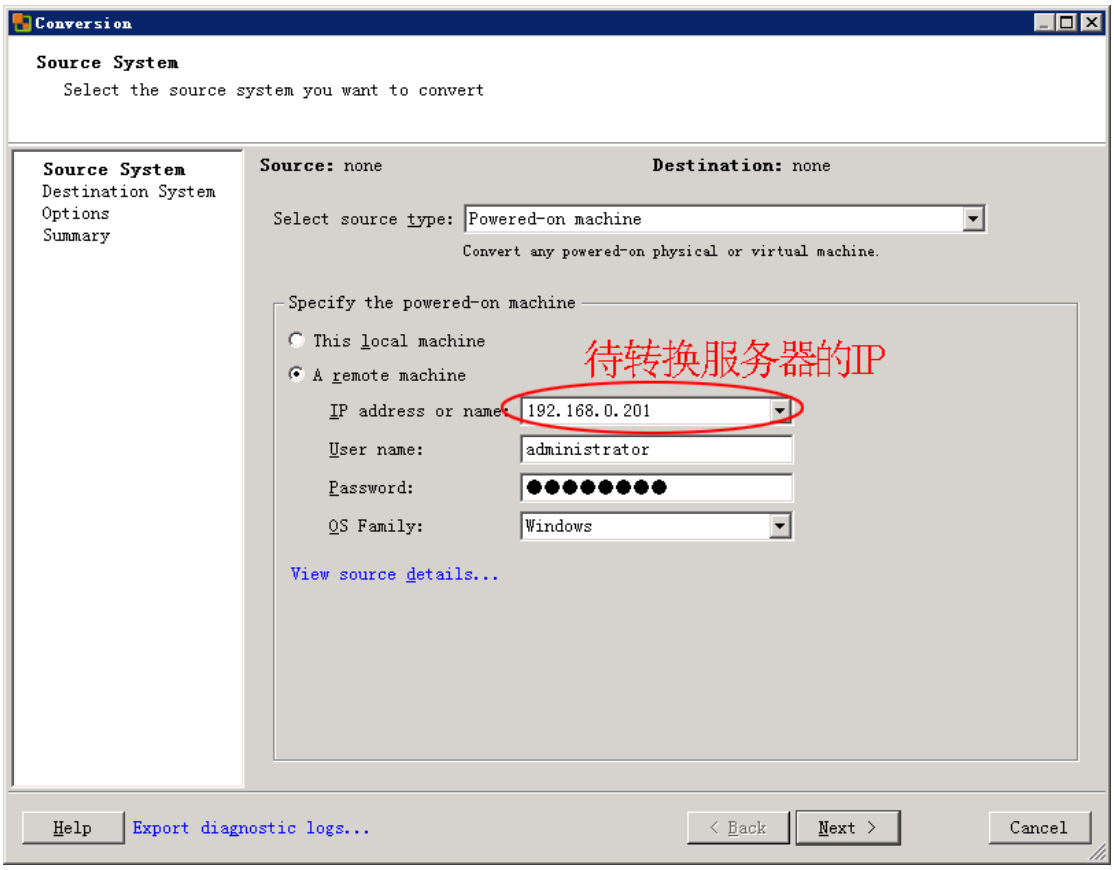
四、运行 Converter 工具



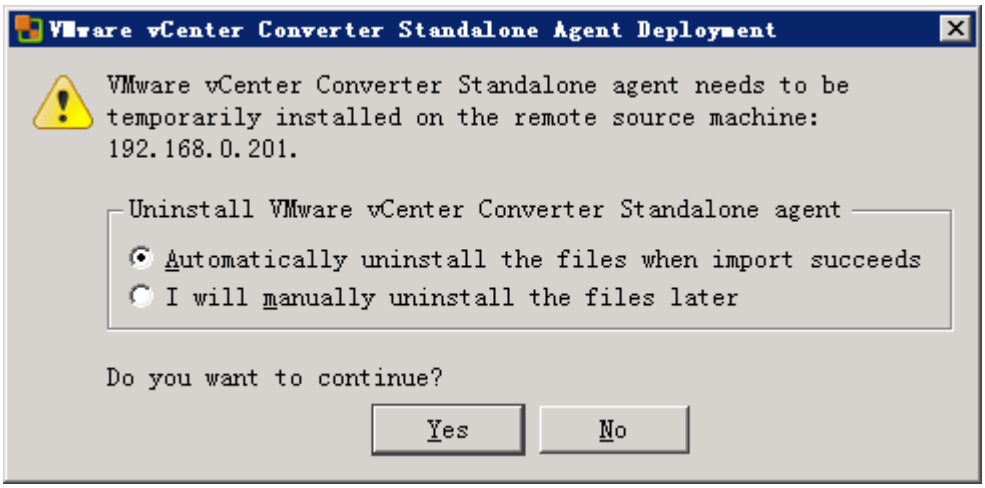
选择[Convert machine]



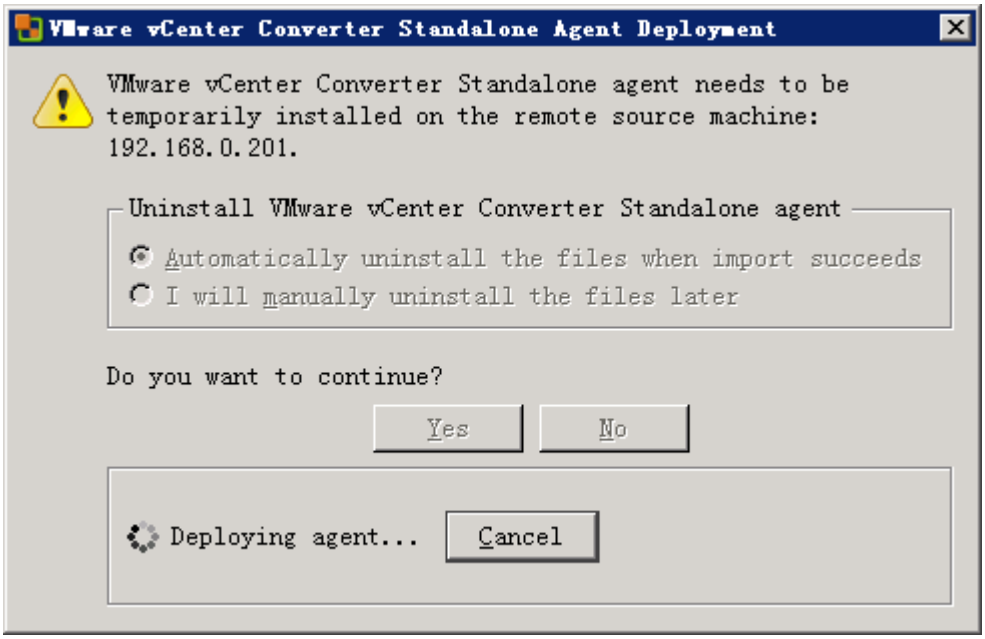
选择 A remote machine 项，输入源服务器地址，管理员用户，密码，系统类型。



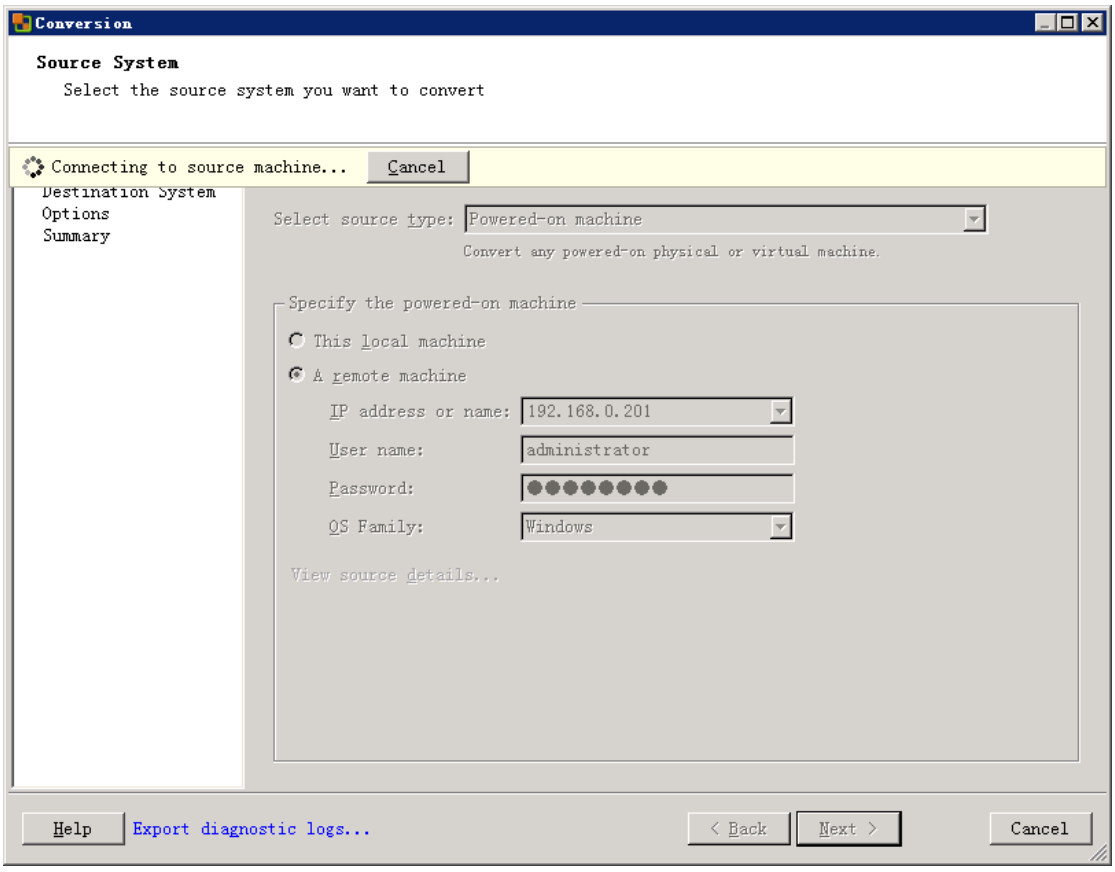
选择完成后代理自动卸载选项



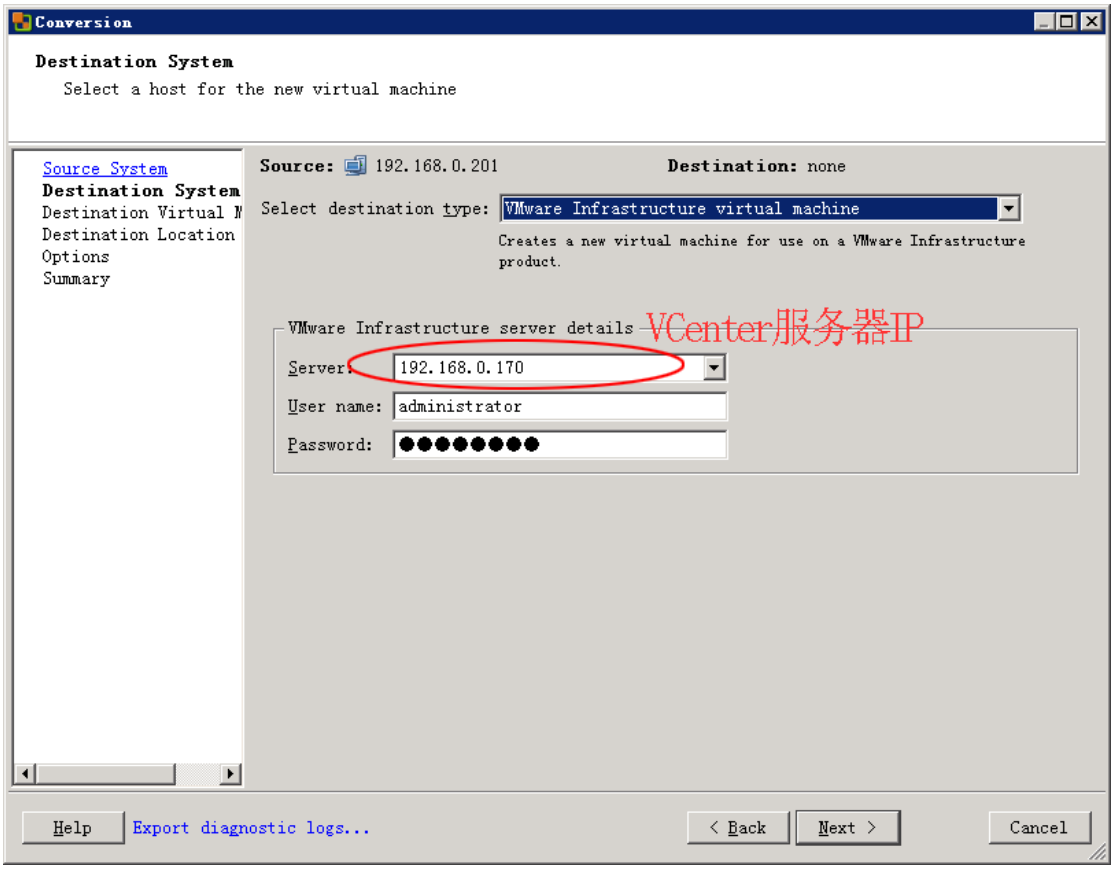
远程部署代理



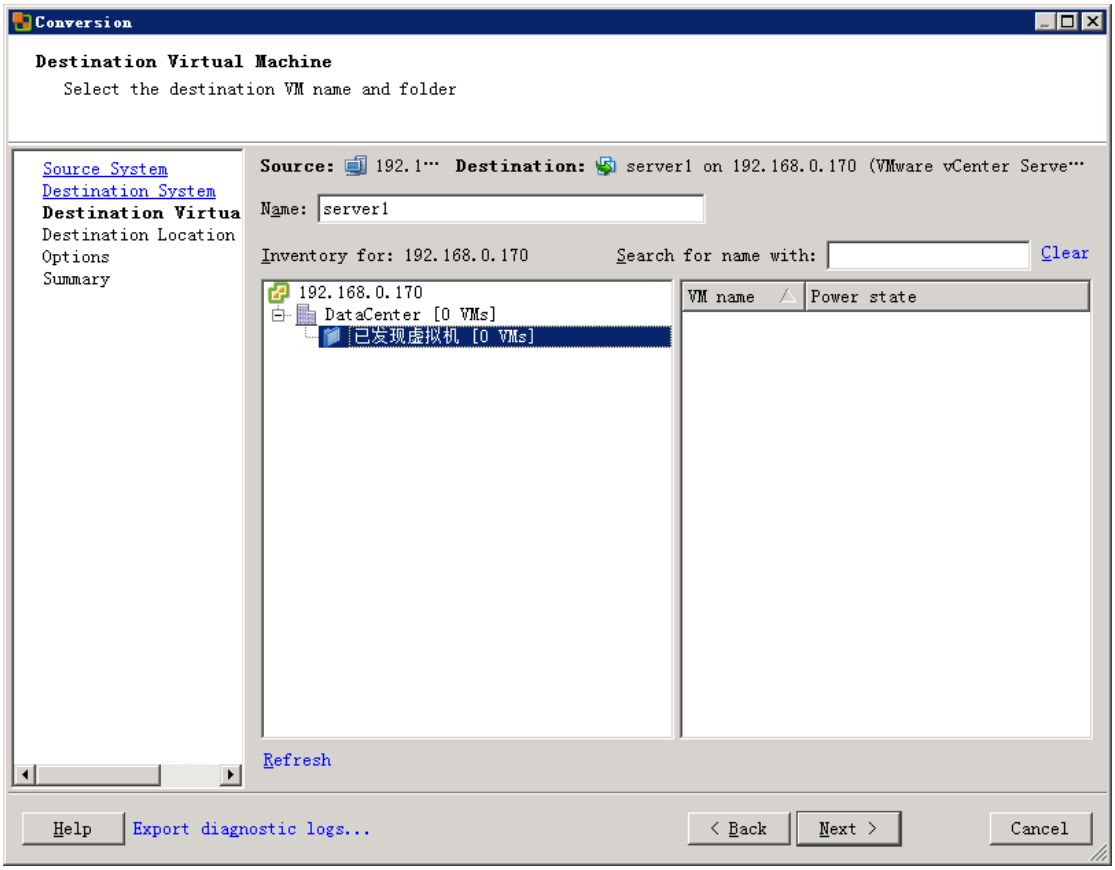
代理部署完成后，Converter服务器试图与源服务器上的代理连接



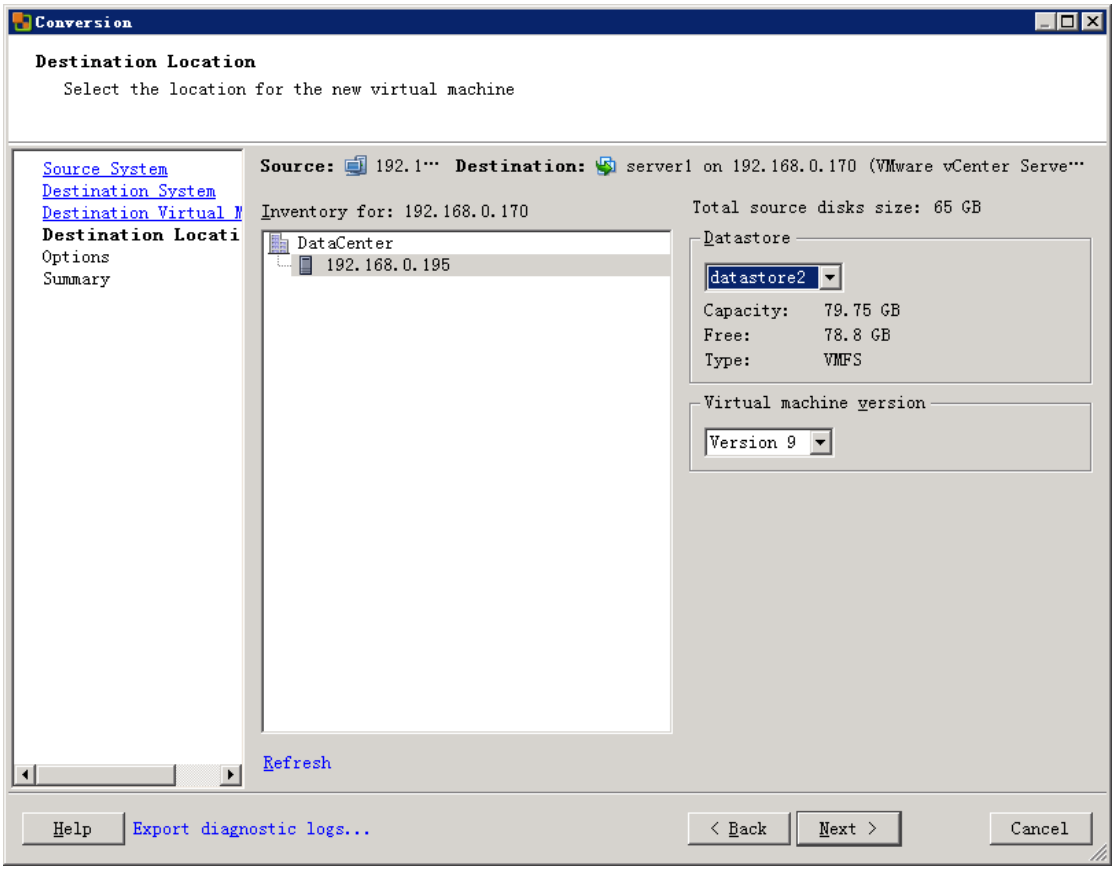
Converter服务器与源服务器代理建立连接后，即可设置目标位置的参数，设置中选择目标类型VMware Infrastructure virtual machine(即Vcenter管理的VMware虚拟化服务器平台环境)，输入目标地址(vCenter Server IP)，用户名，密码。

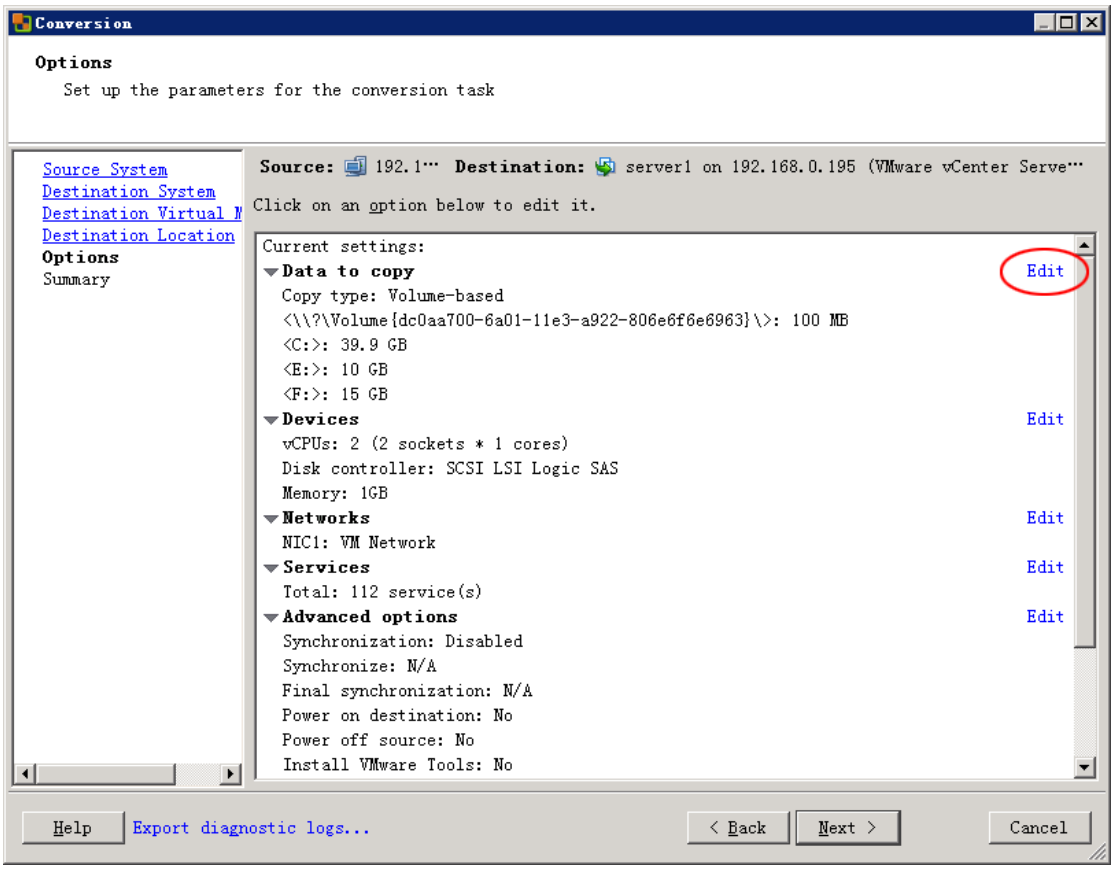


接下来输入转换后虚拟机服务器的名称“Server1”

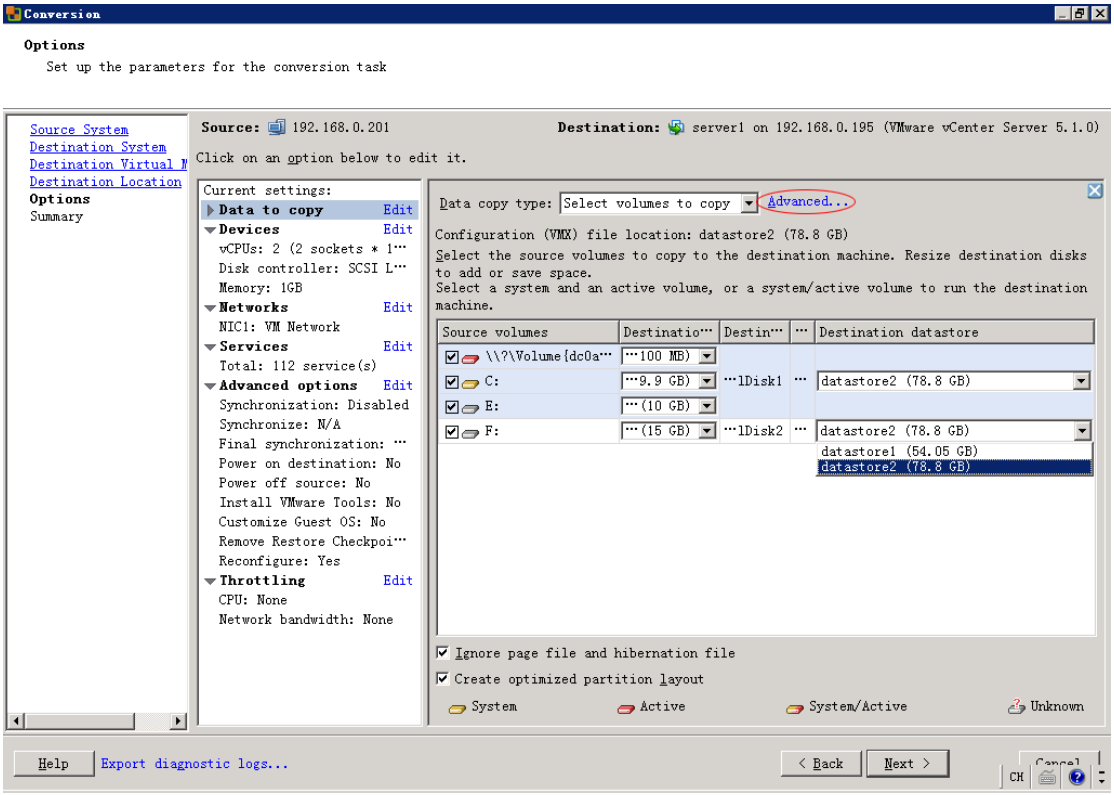


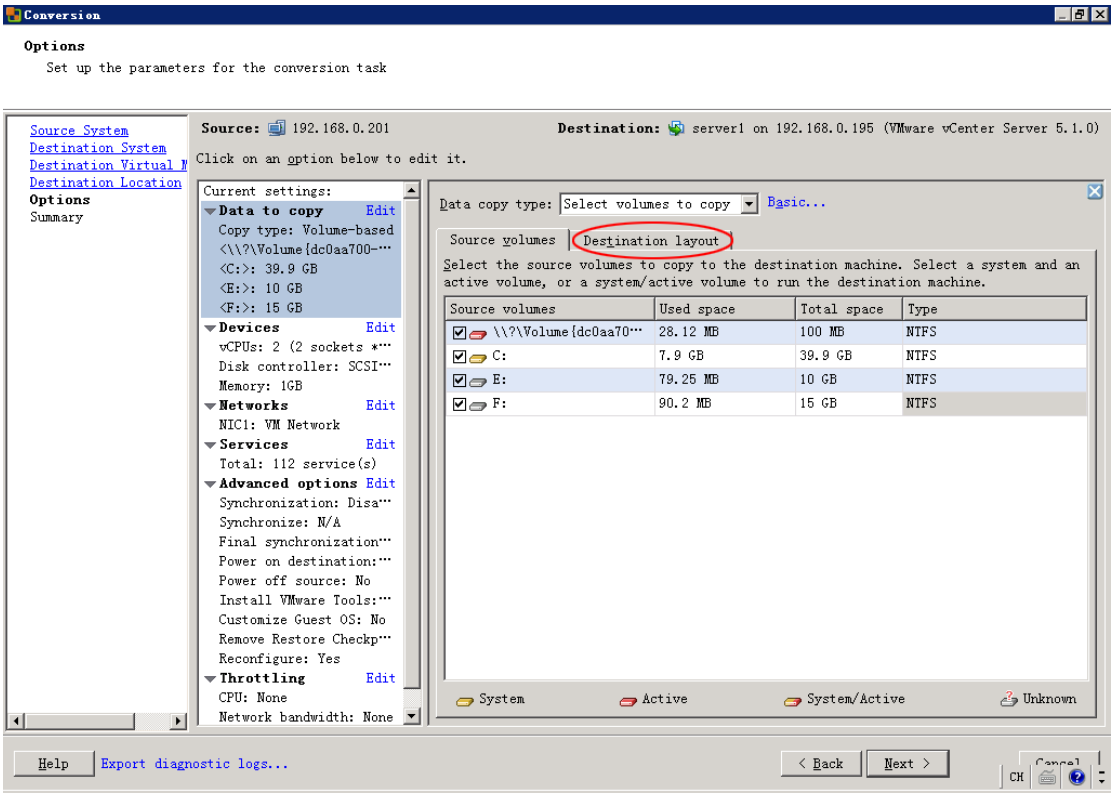
选择ESXi主机及ESXi主机的存储，本次选择datastore2



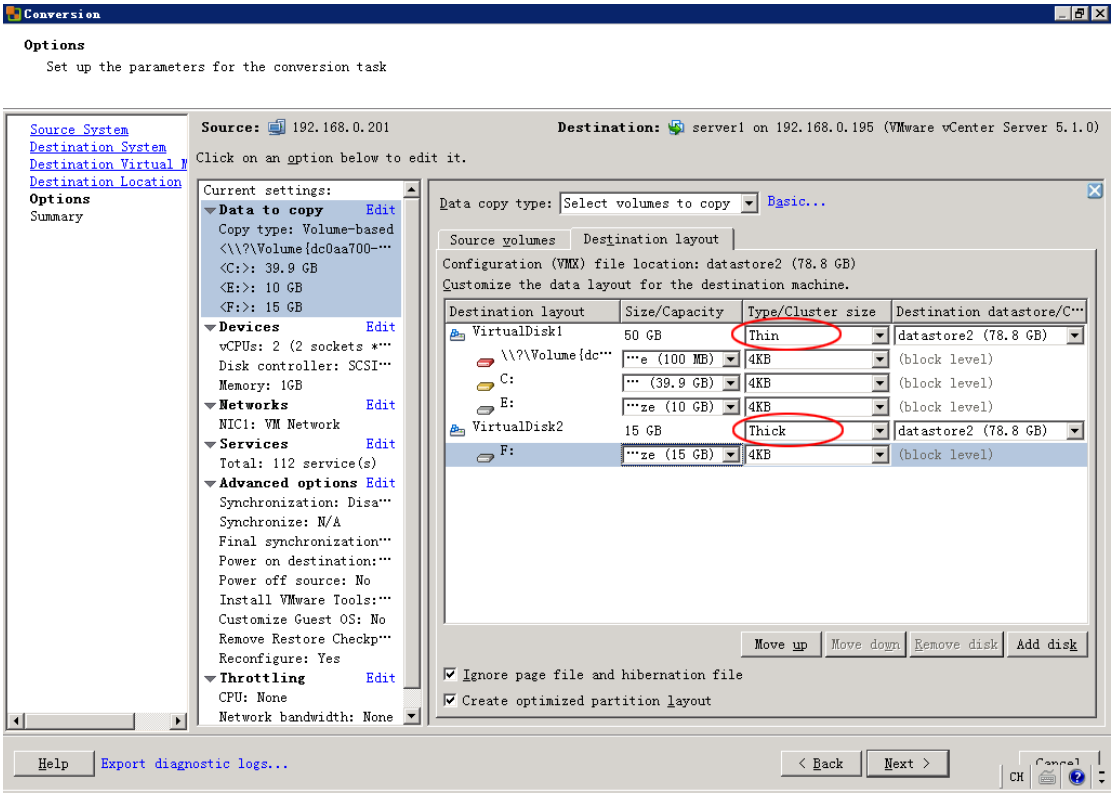


选择[高级]选项，可调整待转换系统磁盘分区与虚拟机虚拟磁盘文件相关的参数

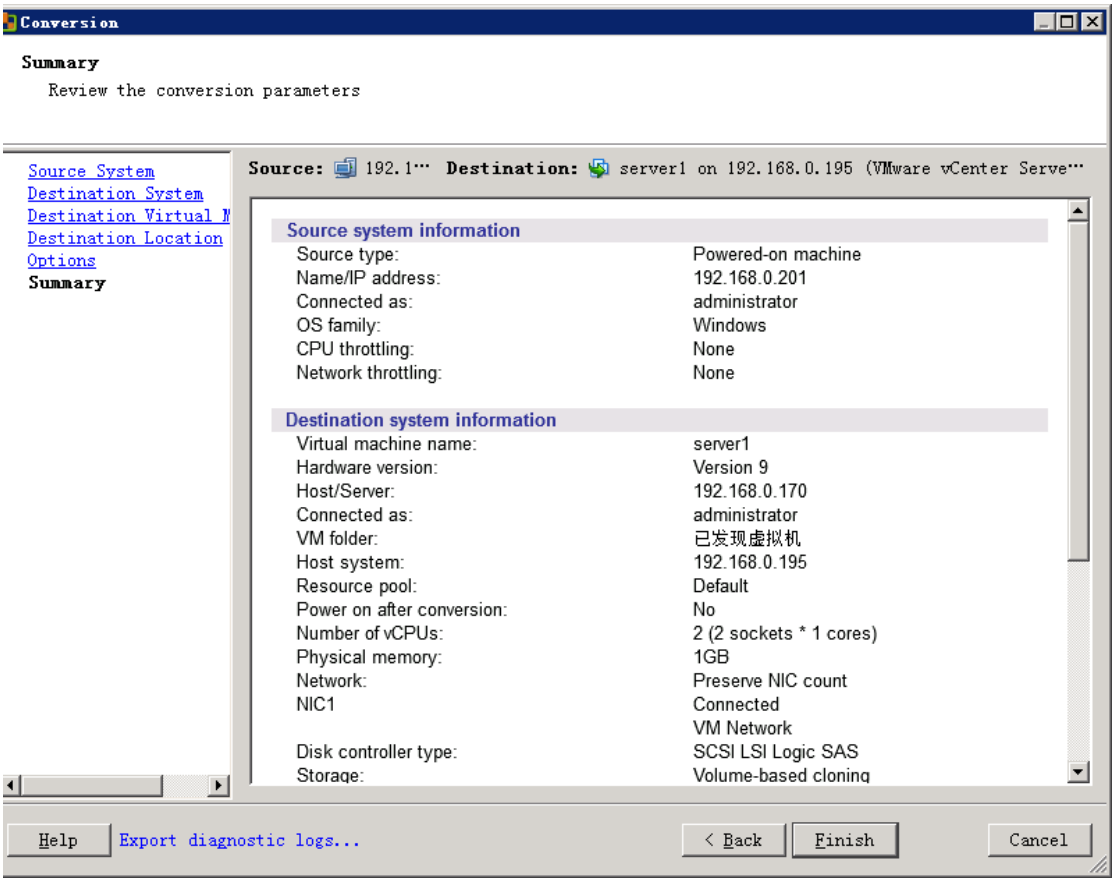


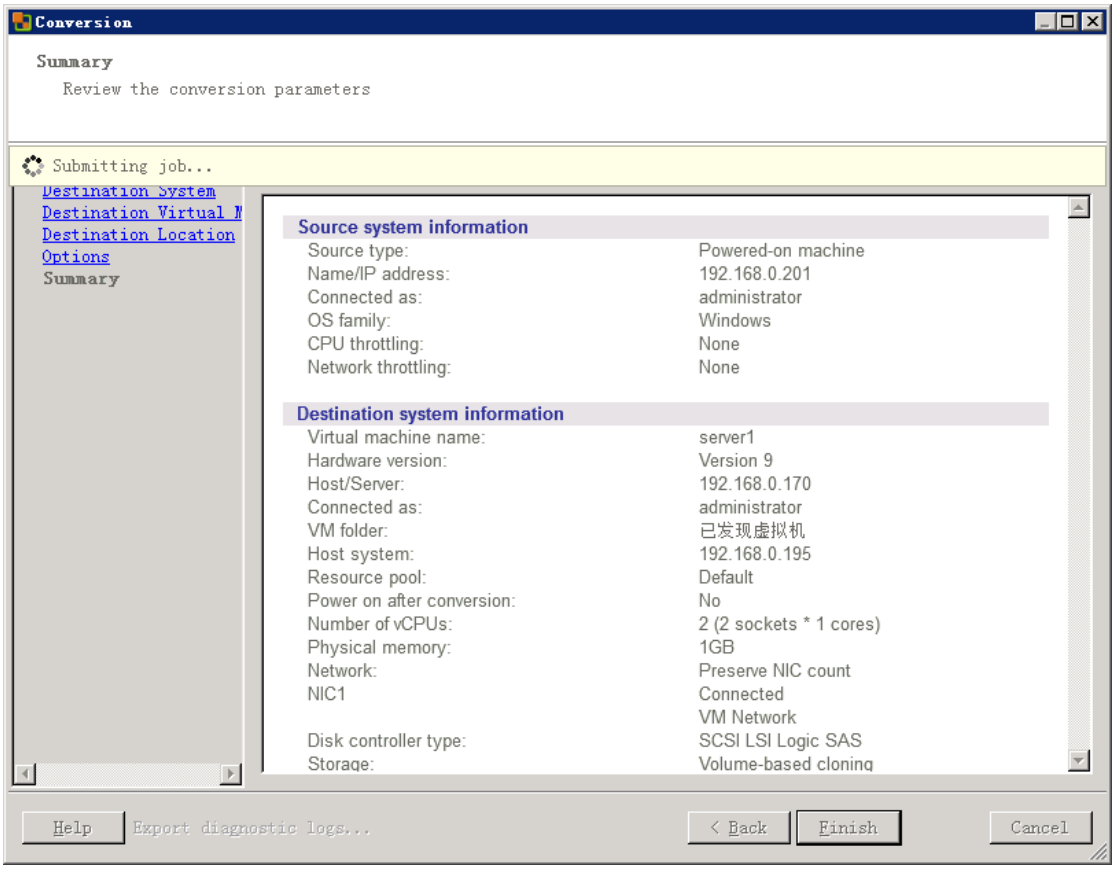


下图可看到虚拟机部署为两个虚拟磁盘文件，同时可考虑是存储的“厚”配置，还是“精简”配置，还可以调整分区在虚拟机内所处的磁盘文件。

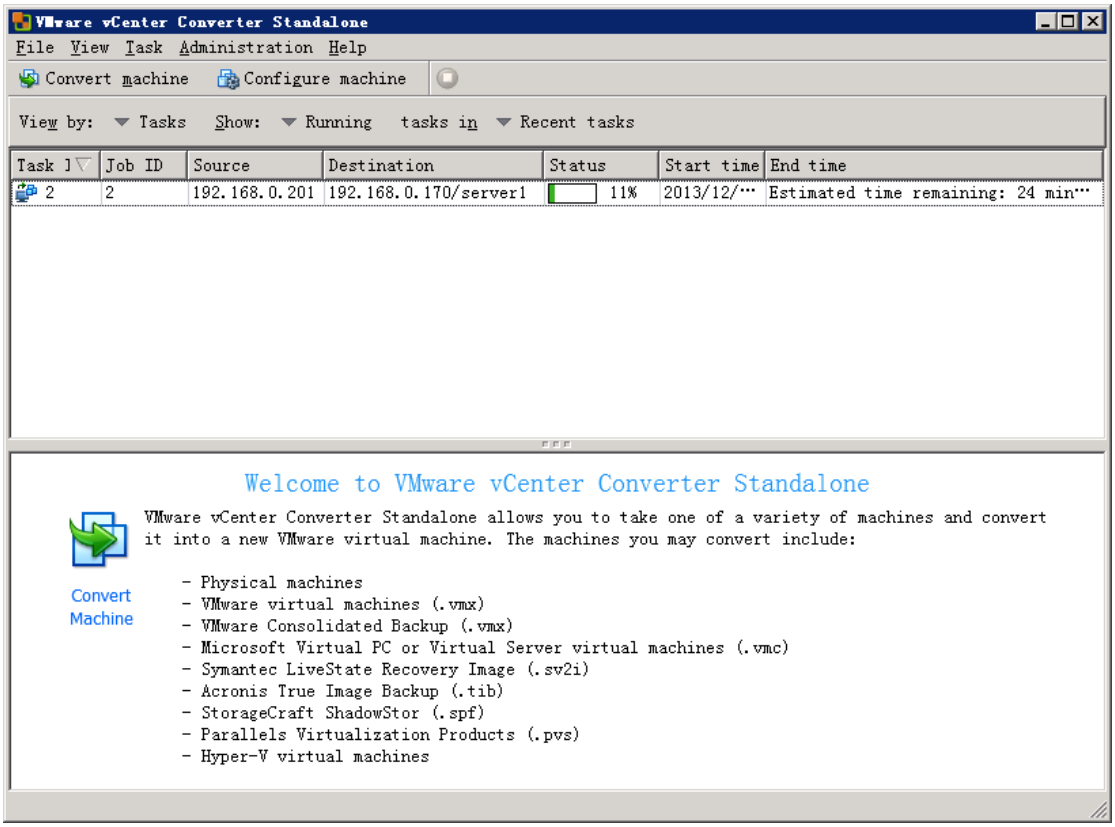


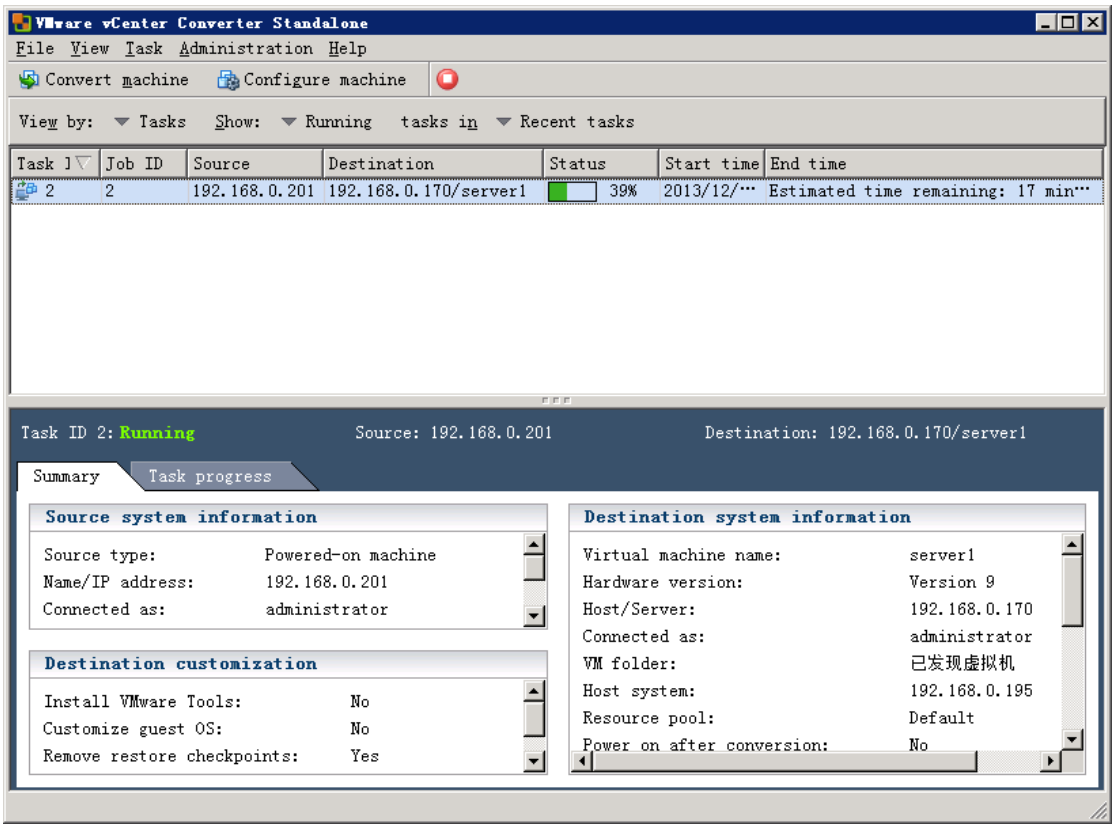
调整好后，下一步


Conversion
Summary
Review the conversion parameters
Source System
Destination System
Destination Virtual M
Destination Location
Options
Summary
Source: 192.1··· Destination: server1 on 192.168.0.195 (VMware vCenter Serve···
Source system information
Source type: Powered-on machine
Name/IP address: 192.168.0.201
Connected as: administrator
OS family: Windows
CPU throttling: None
Network throttling: None
Destination system information
Virtual machine name: server1
Hardware version: Version 9
Host/Server: 192.168.0.170
Connected as: administrator
VM folder: 已发现虚拟机
Host system: 192.168.0.195
Resource pool: Default
Power on after conversion: No
Number of vCPUs: 2 (2 sockets * 1 cores)
Physical memory: 1GB
Network: Preserve NIC count
NIC1 Connected
VM Network
Disk controller type: SCSI LSI Logic SAS
Storage: Volume-based cloning
Help
Export diagnostic logs...
< Back
Finish
Cancel

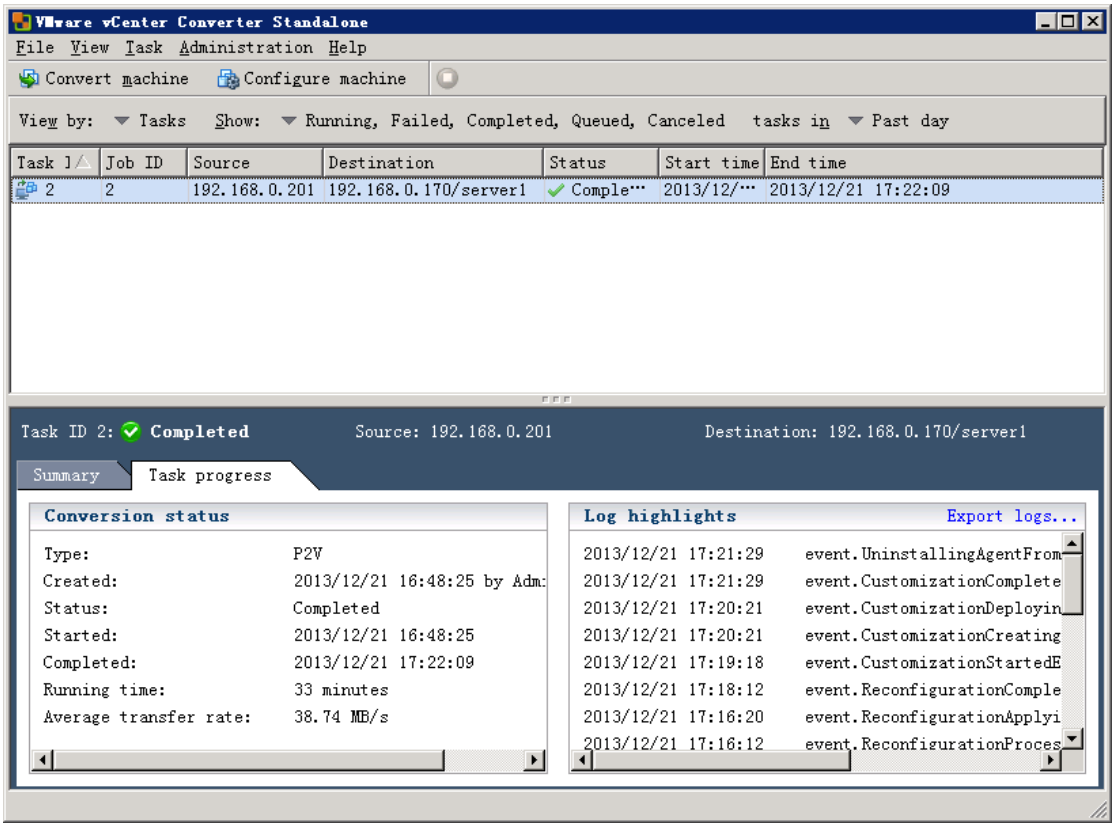

Conversion
Summary
Review the conversion parameters
Submitting job...
Destination System
Destination Virtual M
Destination Location
Options
Summary
Source system information
Source type: Powered-on machine
Name/IP address: 192.168.0.201
Connected as: administrator
OS family: Windows
CPU throttling: None
Network throttling: None
Destination system information
Virtual machine name: server1
Hardware version: Version 9
Host/Server: 192.168.0.170
Connected as: administrator
VM folder: 已发现虚拟机
Host system: 192.168.0.195
Resource pool: Default
Power on after conversion: No
Number of vCPUs: 2 (2 sockets * 1 cores)
Physical memory: 1GB
Network: Preserve NIC count
NIC1 Connected
VM Network
Disk controller type: SCSI LSI Logic SAS
Storage: Volume-based cloning
Help
Export diagnostic logs...
< Back
Finish
Cancel

开始转换

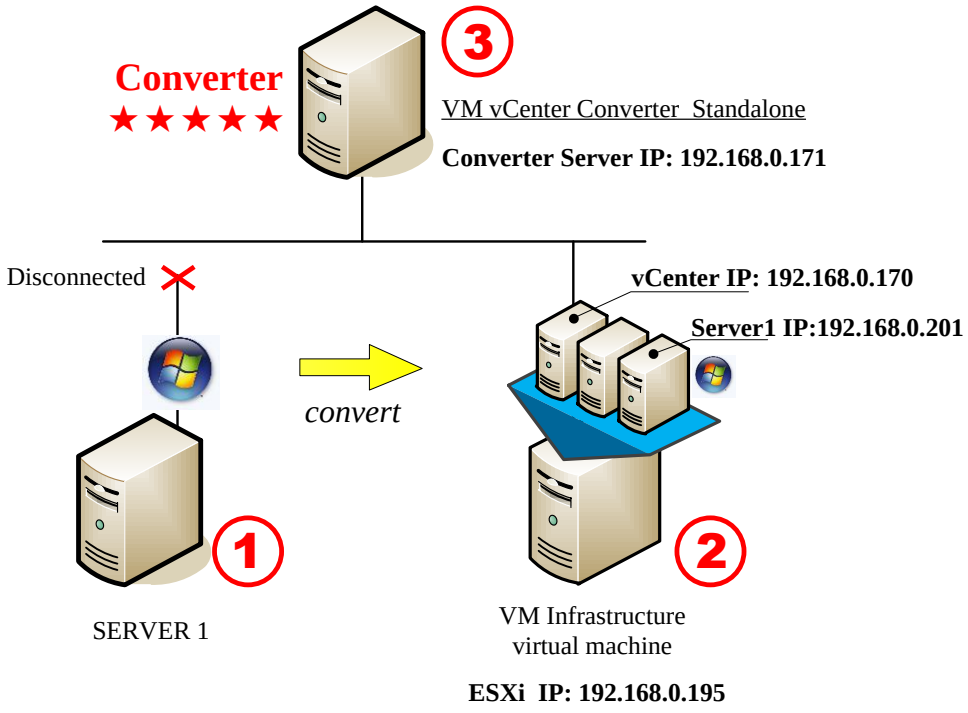

VMware vCenter Converter Standalone
File View Task Administration Help
Convert machine
Configure machine
View by: Tasks Show: Running tasks in Recent tasks
Task 1 Job ID Source Destination Status Start time End time
2 2 192.168.0.201 192.168.0.170/server1 11% 2013/12/… Estimated time remaining: 24 min…
Welcome to VMware vCenter Converter Standalone
VMware vCenter Converter Standalone allows you to take one of a variety of machines and convert it into a new VMware virtual machine. The machines you may convert include:
Convert Machine
- Physical machines
- VMware virtual machines (.vmx)
- VMware Consolidated Backup (.vmx)
- Microsoft Virtual PC or Virtual Server virtual machines (.vmc)
- Symantec LiveState Recovery Image (.sv2i)
- Acronis True Image Backup (.tib)
- StorageCraft ShadowStor (.spf)
- Parallels Virtualization Products (.pvs)
- Hyper-V virtual machines


VMware vCenter Converter Standalone
File View Task Administration Help
Convert machine
Configure machine
View by: Tasks Show: Running tasks in Recent tasks
Task 1 Job ID Source Destination Status Start time End time
2 2 192.168.0.201 192.168.0.170/server1 39% 2013/12/… Estimated time remaining: 17 min…
Task ID 2: Running
Source: 192.168.0.201
Destination: 192.168.0.170/server1
Summary
Task progress
Source system information
Source type: Powered-on machine
Name/IP address: 192.168.0.201
Connected as: administrator
Destination customization
Install VMware Tools: No
Customize guest OS: No
Remove restore checkpoints: Yes
Destination system information
Virtual machine name: server1
Hardware version: Version 9
Host/Server: 192.168.0.170
Connected as: administrator
VM folder: 已发现虚拟机
Host system: 192.168.0.195
Resource pool: Default
Power on after conversion: No

完成


VMware vCenter Converter Standalone
File View Task Administration Help
Convert machine
Configure machine
View by: Tasks Show: Running, Failed, Completed, Queued, Canceled tasks in Past day
Task I
Job ID
Source
Destination
Status
Start time
End time
2
2
192.168.0.201
192.168.0.170/server1
Comple…
2013/12/…
2013/12/21 17:22:09
Task ID 2: Completed
Source: 192.168.0.201
Destination: 192.168.0.170/server1
Summary
Task progress
Conversion status
Type: P2V
Created: 2013/12/21 16:48:25 by Adm
Status: Completed
Started: 2013/12/21 16:48:25
Completed: 2013/12/21 17:22:09
Running time: 33 minutes
Average transfer rate: 38.74 MB/s
Log highlights
Export logs...
2013/12/21 17:21:29 event.UninstallingAgentFrom
2013/12/21 17:21:29 event.CustomizationComplete
2013/12/21 17:20:21 event.CustomizationDeployin
2013/12/21 17:20:21 event.CustomizationCreating
2013/12/21 17:19:18 event.CustomizationStartedE
2013/12/21 17:18:12 event.ReconfigurationComple
2013/12/21 17:16:20 event.ReconfigurationApplyi
2013/12/21 17:16:12 event.ReconfigurationProces

转换完成后架构如下（断开源系统的网络连接以便IP地址冲突）



vCenter管理界面中可见转换完成后的虚拟机