Sample Operating System Configuration Template Files

This chapter contains the following sections:

Sample Linux Configuration Template Files

Sample Kickstart Configuration Template File for Linux Operating Systems

The following example shows the Kickstart configuration template file (`ks.cfg`) that is required for Linux operating system images:

```
#platform=x86, AMD64, or Intel EM64T

# System authorization information
auth  --useshadow  --enablemd5

# System bootloader configuration
bootloader --append="rhgb quiet" --location=mbr --driveorder=sda

# Partition clearing information
clearpart --linux --initlabel

# Use text-based install
text

# Firewall configuration
firewall --disabled

# Run the Setup Agent on first boot
firstboot --disable

# System keyboard
keyboard us

# System language
lang en_US
```

```
# Installation logging level
logging --level=info

# Provide url/location of image over http.
url --url=http://$PXE_NATIVE_WEBSERVER/image_name

#Reboot after installation
reboot

# Network information
network --bootproto=static --device=eth0 --ip=$PXE_IP
  --netmask=$PXE_NETMASK --gateway=$PXE_GATEWAY
  --hostname=$PXE_NAME --onboot=on

#Root password
rootpw $PXE_PASSWD

# SELinux configuration
selinux --disabled

# System timezone
timezone --utc America/New_York

# Install OS instead of upgrade
install

# Disk partitioning information
part /  --fstype="ext3" --size=8000

#Install required packages
%packages --nobase
wget

%post
wget http://$PXE_WEBSERVER/$PXEID/notify.html
```

Sample PXE Configuration Template File for Linux Operating Systems

The following example shows the PXE configuration template file (pxe.cfg) that is required for Linux
operating system images:

```
default linux

label linux
kernel vmlinuz

append initrd=initrd.img ramdisk_size=9216 noapic acpi=off ip=dhcp ks=$PXE_KS_URL

prompt 0
timeout 0
```

Sample VMware vSphere ESXi Configuration Template Files

Sample Kickstart Configuration Template File for VMware vSphere ESXi Operating Systems

The following example shows the Kickstart configuration template file (`ks.cfg`) that is required for VMware vSphere ESXi operating system images:

```
vmaccepteula

#Set passsword for ESXi server, "$PXE_PASSWD" will be filled in by UCSD
rootpw $PXE_PASSWD

#For Local boot, uncomment the following line
#install --firstdisk --overwritevmfs

#For SAN boot, uncomment the following line
install --firstdisk=remote --overwritevmfs

#Configures the mangement vmknic interface for the ESXi host. All items
  starting with "$" are variables that will be replaced by UCSD during the
  PXE boot process.
network --bootproto=static --ip=$PXE_IP --netmask=$PXE_NETMASK
  --gateway=$PXE_GATEWAY --vlanid=$PXE_MGMTVLAN
  --nameserver=$PXE_NS --hostname=$PXE_NAME

%pre --interpreter=busybox
hwclock -d %LIVE_VAR_DATE_1% -t %LIVE_VAR_TIME_UTC_1%
date -s %LIVE_VAR_DATE_TIME_UTC_1%
cd /tmp
wget http://$PXE_WEBSERVER/$PXEID/web/track/log1

%firstboot --interpreter=busybox
cd /tmp
wget http://$PXE_WEBSERVER_MGMT_VLAN_IP/$PXEID/web/track/log3

wget http://$PXE_WEBSERVER_MGMT_VLAN_IP/$PXEID/web/track/log4


#Enable & start remote ESXi Shell  (SSH)
vim-cmd hostsvc/enable_ssh
vim-cmd hostsvc/start_ssh

#Enable & start ESXi Shell (TSM)
vim-cmd hostsvc/enable_esx_shell
vim-cmd hostsvc/start_esx_shell

wget http://$PXE_WEBSERVER_MGMT_VLAN_IP/$PXEID/web/track/log5


%post --interpreter=busybox --ignorefailure=true

cd /tmp
localcli network firewall set --default-action true
localcli network firewall set --enabled false
wget http://$PXE_WEBSERVER_MGMT_VLAN_IP/$PXEID/web/track/log2
wget http://$PXE_WEBSERVER_MGMT_VLAN_IP/$PXEID/notify.html -O /tmp/notify.html
localcli network firewall set --default-action false
localcli network firewall set --enabled true

#Power down the ESXi server after installation
poweroff
```

Sample PXE Configuration Template File for VMware vSphere ESXi Operating Systems

The following example shows the PXE configuration template file (`pxe.cfg`) that is required for VMware vSphere ESXi operating system images:

```
default image_name/menu.c32
menu title PXE Boot Home
timeout 70

label image_name
menu label Install VMware image_name
kernel image_name/mboot.c32
append -c /web/ks-repository/$PXE_ID/boot.cfg  +++
IPAPPEND 1
```

Sample Windows Answer File

The following is an example of a Windows answer file, named `AUTOUNATTEND.XML`, that can be used to set up a Windows Server 2008 R2 OS image for use with Cisco UCS Director Bare Metal Agent.

```
<unattend>
 <servicing>
  <package action="configure">
    <assemblyIdentity name="Microsoft-Windows-Foundation-Package" version="6.1.7600.16385"

    processorArchitecture="amd64" publicKeyToken="xxxf3856ad364xxx" language=""/>
    <selection name="IIS-WebServerRole" state="false"/>
    <selection name="IIS-WebServer" state="false"/>
    <selection name="Microsoft-Hyper-V" state="true"/>
    <selection name="Microsoft-Hyper-V-Management-Clients" state="true"/>
    <selection name="Microsoft-Hyper-V-Management-Clients" state="true"/>
    <selection name="MultipathIo" state="true"/>
    <selection name="TelnetClient" state="true"/>
  </package>
 </servicing>
<settings pass="windowsPE">
 <component name="Microsoft-Windows-Setup" processorArchitecture="amd64"
   publicKeyToken="xxxf3856ad364xxx" language="neutral" versionScope="nonSxS">
  <ComplianceCheck>
 <DisplayReport>OnError</DisplayReport>
 </ComplianceCheck>
<Display>
    <VerticalResolution>600</VerticalResolution>
    <RefreshRate>60</RefreshRate>
    <HorizontalResolution>800</HorizontalResolution>
    <ColorDepth>32</ColorDepth>
 </Display>
 <EnableFirewall>false</EnableFirewall>
<UserData>
 <ProductKey>
  <WillShowUI>Never</WillShowUI>
  <Key>XXXXX-XXXXX-KQT8W-PMXWJ-XXXXX</Key>
 </ProductKey>
 <AcceptEula>true</AcceptEula>
 <FullName>Cisco</FullName>
 <Organization>CiscoUCSD</Organization>
 </UserData>
<DiskConfiguration>
 <WillShowUI>OnError</WillShowUI>
<Disk wcm:action="add">
<CreatePartitions>
```

```
<CreatePartition wcm:action="add">
 <Order>1</Order>
 <Type>Primary</Type>
 <Size>40000</Size>
 </CreatePartition>
 </CreatePartitions>
 <DiskID>0</DiskID>
 <WillWipeDisk>true</WillWipeDisk>
<ModifyPartitions>
<ModifyPartition wcm:action="add">
 <Active>true</Active>
 <Extend>false</Extend>
 <Format>NTFS</Format>
 <Label>OS</Label>
 <Letter>C</Letter>
 <Order>1</Order>
 <PartitionID>1</PartitionID>
 </ModifyPartition>
 </ModifyPartitions>
 </Disk>
 </DiskConfiguration>
<ImageInstall>
<OSImage>
<InstallTo>
 <DiskID>0</DiskID>
 <PartitionID>1</PartitionID>
 </InstallTo>
 <WillShowUI>Never</WillShowUI>
<InstallFrom>
<MetaData wcm:action="add">
 <Key>/IMAGE/NAME</Key>
 <Value>Windows Server 2008 R2 SERVERDATACENTER</Value>
 </MetaData>
 <Path>\\000.00.90.31\bits\sources\install.wim</Path>
 </InstallFrom>
 </OSImage>
 </ImageInstall>
 </component>
<component name="Microsoft-Windows-International-Core-WinPE" processorArchitecture="amd64"

 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<SetupUILanguage>
 <UILanguage>en-US</UILanguage>
 </SetupUILanguage>
 <UserLocale>en-US</UserLocale>
 <UILanguage>en-US</UILanguage>
 <SystemLocale>en-US</SystemLocale>
 </component>
 </settings>
<settings pass="specialize">
<component name="Microsoft-Windows-International-Core" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
 <SystemLocale>en-US</SystemLocale>
 <UILanguage>en-US</UILanguage>
 <UILanguageFallback>en-US</UILanguageFallback>
 <UserLocale>en-US</UserLocale>
 </component>
<component name="Microsoft-Windows-TerminalServices-LocalSessionManager"
 processorArchitecture="amd64" publicKeyToken="nnnf3856ad364nnn"
 language="neutral" versionScope="nonSxS">
 <fDenyTSConnections>false</fDenyTSConnections>
 </component>
<component name="Microsoft-Windows-Deployment" processorArchitecture="amd64"
 publicKeyToken="31bf3856ad364nnn" language="neutral" versionScope="nonSxS">
<RunSynchronous>
<RunSynchronousCommand wcm:action="add">
 <Description>Disable IPv6</Description>
 <Path>reg add HKLM\SYSTEM\CurrentControlSet\Services\tcpip6\Parameters /v DisabledComponents
 /t
  REG_DWORD /d 255 /f</Path>
 <Order>1</Order>
 </RunSynchronousCommand>
<RunSynchronousCommand wcm:action="add">
```

```
<Description>Disable Shutdown Tracker</Description>
<Path>reg add "HKLM\SOFTWARE\Policies\Microsoft\Windows NT\Reliability" /v ShutdownReasonOn
/t
 REG_DWORD /d 0 /f</Path>
<Order>2</Order>
</RunSynchronousCommand>
</RunSynchronous>
</component>
<component name="Networking-MPSSVC-Svc" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<DomainProfile_EnableFirewall>false</DomainProfile_EnableFirewall>
<PrivateProfile_EnableFirewall>false</PrivateProfile_EnableFirewall>
<PublicProfile_EnableFirewall>false</PublicProfile_EnableFirewall>
</component>
<component name="Microsoft-Windows-ServerManager-SvrMgrNc" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<DoNotOpenServerManagerAtLogon>true</DoNotOpenServerManagerAtLogon>
</component>
<component name="Microsoft-Windows-OutOfBoxExperience" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<DoNotOpenInitialConfigurationTasksAtLogon>true</DoNotOpenInitialConfigurationTasksAtLogon>

</component>
<component name="Microsoft-Windows-powercpl" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<PreferredPlan>8c5e7fda-e8bf-4a96-9a85-a6e23a8c635c</PreferredPlan>
</component>
<component name="Microsoft-Windows-Shell-Setup" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<ComputerName>*</ComputerName>
<ProductKey>XXXXX-XXXXX-KQT8W-PMXWJ-XXXXX</ProductKey>
</component>
</settings>
<settings pass="oobeSystem">
<component name="Microsoft-Windows-Shell-Setup" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
<Display>
<ColorDepth>32</ColorDepth>
<HorizontalResolution>800</HorizontalResolution>
<VerticalResolution>600</VerticalResolution>
<RefreshRate>60</RefreshRate>
</Display>
<OOBE>
<HideEULAPage>true</HideEULAPage>
<HideWirelessSetupInOOBE>true</HideWirelessSetupInOOBE>
<NetworkLocation>Work</NetworkLocation>
<ProtectYourPC>3</ProtectYourPC>
</OOBE>
<VisualEffects>
<FontSmoothing>ClearType</FontSmoothing>
</VisualEffects>
<WindowsFeatures>
<ShowInternetExplorer>true</ShowInternetExplorer>
</WindowsFeatures>
<TimeZone>Pacific Standard Time</TimeZone>
<RegisteredOrganization/>
<ShowWindowsLive>false</ShowWindowsLive>
<UserAccounts>
<AdministratorPassword>
<Value>987654321abc???=</Value>
<PlainText>false</PlainText>
</AdministratorPassword>
</UserAccounts>
<AutoLogon>
<Password>
<Value>123456abc???</Value>
<PlainText>false</PlainText>
</Password>
<Enabled>true</Enabled>
<LogonCount>1</LogonCount>
<Username>Administrator</Username>
</AutoLogon>
<FirstLogonCommands>
```

```
<SynchronousCommand wcm:action="add">
 <CommandLine>cmd /c winrm quickconfig -quiet -transport:HTTP</CommandLine>
 <Description>Enable WinRS over HTTP to communicate with CPA</Description>
 <Order>1</Order>
 <RequiresUserInput>false</RequiresUserInput>
 </SynchronousCommand>
<SynchronousCommand wcm:action="add">
 <CommandLine>cmd /c winrm set winrm/config/client @{TrustedHosts="*"}</CommandLine>
 <Description>Adding trusted hosts value for winrm client</Description>
 <Order>2</Order>
 <RequiresUserInput>false</RequiresUserInput>
 </SynchronousCommand>
<SynchronousCommand wcm:action="add">
 <CommandLine>cmd /c net use R: \\000.00.90.31\bits /user:smbuser cisco123</CommandLine>
 <Description>Mapping the share to save the notification file</Description>
 <Order>3</Order>
 <RequiresUserInput>false</RequiresUserInput>
 </SynchronousCommand>
<SynchronousCommand wcm:action="add">
 <CommandLine>cmd /c ipconfig /all | findstr "Physical" >>
R:\notifications\completed.html</CommandLine>
 <Description>Writing the completed notification log with MAC address at
  Share mapped in previous step</Description>
 <Order>4</Order>
 <RequiresUserInput>false</RequiresUserInput>
 </SynchronousCommand>
<SynchronousCommand wcm:action="add">
 <CommandLine>cmd /c R:\notifications\completed.bat</CommandLine>
 <Description>executing powershell batch file like as wget</Description>
 <Order>5</Order>
 <RequiresUserInput>false</RequiresUserInput>
 </SynchronousCommand>
 </FirstLogonCommands>
 </component>
 </settings>
<settings pass="offlineServicing">
<component name="Microsoft-Windows-LUA-Settings" processorArchitecture="amd64"
 publicKeyToken="nnnf3856ad364nnn" language="neutral" versionScope="nonSxS">
 <EnableLUA>false</EnableLUA>
 </component>
 </settings>
 <cpi:offlineImage cpi:source="wim:D:/win2k8r2x64sp1/sources/install.wim#Windows
  Server 2008 R2 SERVERDATACENTER"/>
 </unattend>
```