Pre-Installation Tasks

Perform Pre-Installation Tasks for Unified Communications Manager Nodes

Perform all pre-installation tasks to ensure that you can successfully install the Unified Communications Manager.

Procedure

Step 1 Review the installation requirements and record the configurations settings for each server that you plan to install.

Step 2 For every node in your cluster, create virtual machines using the Virtual Server Template (OVA file) recommended for your current release.

Different OVA files are available; choose the correct OVA file based on the environment in which you are deploying Unified Communications Manager.

Step 3 Place the installation ISO file in a location where the virtual machine can access it and edit the virtual machine's DVD drive to map to the file. Select the option to mount the DVD drive when you power on the virtual machine.
When you power on the virtual machine, it will mount the ISO file and start the installation process. Do not begin the installation process until you have completed all of the steps in this procedure.

Step 4 If you are installing a cluster or adding a node, verify that the links between servers meet the 80-ms round-trip time (RTT) requirement and that you have enough bandwidth to support database replication.

For more information on the 80-ms RTT requirement, refer to the *Cisco Unified Communications Solution Reference Network Design (SRND) based on Unified Communications Manager*, which you can find at http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_implementation_design_guides_list.html.

Step 5 If you are getting the system time from an NTP server (mandatory for VMware deployments), verify that the publisher node can synchronize with the NTP server before you install a subscriber node. Log into the Command Line Interface on the publisher node and enter the following command: **`utils ntp status`**

Note To avoid potential compatibility, accuracy, and network jitter problems, the external NTP servers that you specify for the primary node must be NTP v4 (version 4). If you are using IPv6 addressing, external NTP servers must be NTP v4.

For more information, see the *Command Line Interface Reference Guide for Cisco Unifed Communications Solutions*.

Caution If the publisher node fails to synchronize with an NTP server, installation of a subscriber node can also fail.

Step 6 If your firewall is in the routing path, disable the firewall between nodes, if possible. Also, increase the firewall timeout settings until after you complete the installation.

To temporarily allow network traffic in and out of the nodes (for example, setting the firewall rule for these nodes to **`IP any/any`**) does not always suffice. The firewall might still close necessary network sessions between nodes due to timeouts.

Step 7 Do not run Network Address Translation (NAT) or Port Address Translation (PAT) between servers where you are installing Unified Communications Manager.

Step 8 Ensure that the network interface card (NIC) speed and duplex settings on the switch port are the same as those that you plan to set on the new server.

For GigE (1000/FULL), you should set NIC and switch port settings to Auto/Auto; do not set hard values.

Step 9 Enable PortFast on all switch ports that are connected to Cisco servers. With Portfast enabled, the switch immediately brings a port from the blocking state into the forwarding state by eliminating the forwarding delay [the amount of time that a port waits before changing from its Spanning-Tree Protocol (STP) learning and listening states to the forwarding state].

Step 10 If you use DNS, verify that all servers on which you plan to install Unified Communications Manager are properly registered in DNS.

Step 11 If you are using a server that is running VMware EX/ESXi and the motherboard has an ICH10 onboard SATA controller, you must disable the SATA controller in the BIOS. The ICH10 onboard SATA controller is not supported by EX/ESXi.

a) Boot the server and press F2 when prompted during bootup.
b) Select **Advanced** tab.
c) Select **Mass Storage Controllers Configuration**.
d) Set the Onboard SATA Controller to **Disabled**.

Step 12 Obtain a license file.

Note For more information on specifying the required number of licenses, refer to the *Administration Guide for Cisco Unified Communications Manager*.

Step 13 Configure any subscriber nodes on the publisher node before you install a subscriber node.

From Cisco Unified CM Administration on the publisher node, choose **System** > **Server** and configure the IP address for the subscriber nodes. For more information, see the *Administration Guide for Cisco Unified Communications Manager*.

Perform pre-installation tasks for IM and Presence nodes

You must complete the following pre-installation tasks before you begin to install the IM and Presence software.

Procedure

Step 1 Ensure that the Unified Communications Manager and IM and Presence software versions are compatible.

Step 2 Gather all the information you need to complete the installation and configuration of the IM and Presence software.

Step 3 For every node in your cluster, create virtual machines using the Virtual Server Template (OVA file) recommended for your current release.

Different OVA files are available; choose the correct OVA file based on the environment in which you are deploying Unified Communications Manager.

Step 4 Configure subscriber nodes on the publisher node before you install a subscriber node.

From Cisco Unified CM Administration on the publisher node, choose **System** > **Server** and configure the IP address for the subscriber nodes. For more information, see the *Cisco Unified Communications Manager Administration Guide*.

Step 5 Ensure that the IM and Presence server has network access to the Unified Communications Manager publisher server.

You can ping Unified Communications Manager from other servers.

Step 6 Ensure that you turn on the Cisco AXL Web Service on the associated Unified Communications Manager server.

Select **Tools** > **Service Activation** in Cisco Unified Serviceability.

Step 7 If you use DNS, ensure that you have configured the hostname of the new IM and Presence server on the DNS server and that the DNS server can resolve the hostname of the Unified Communications Manager publisher server and of other IM and Presence servers (if any).

Caution Cisco recommends that you use the same DNS servers between IM and Presence and Unified Communications Manager. If you use different DNS servers, it is likely to cause abnormal system behavior. Both Unified Communications Manager and IM and Presence must either use or not use DNS because Cisco does not support mixed-mode deployments. If you are using the multinode feature in IM and Presence, see the *Deployment Guide for IM and Presence Service on Unified Communications Manager* for DNS configuration options.

Verify DNS Registration

Follow this procedure if you use a DNS in your topology. You must verify that all servers to be added are registered in DNS properly by performing the following actions:

Procedure

Step 1 Open a command prompt.

Step 2 To ping each server by its DNS name, enter ping DNS_name.

Step 3 To look up each server by IP address, enter nslookup IP_address.

Generate answer file

The following procedure describes how to generate an answer file using the CiscoUnified Communications Answer File Generator.

Before you begin

Gather the required installation and configuration information.

Procedure

Step 1 Access the CiscoUnified Communications Answer File Generator at the following URL: http://www.cisco.com/web/cuc_afg/index.html.

Step 2 Enter the required information for the node(s) that you wish to install.

You can specify installation and configuration information for the publisher node and up to 5 subscriber nodes in a cluster.

Note If DHCP client is used on the publisher server, and subscriber server answer files are also generated, you must specify the publisher server IP address.

Step 3 Select **Generate Answer Files**.

Step 4 Follow the instructions to download the answer file(s).

A separate answer file will be generated for each node that you want to install and configure.

Reformat USB key to FAT32 file system

You may need to reformat the USB key for the answer file to the FAT32 file system using the Windows XP Disk Management Utility. The FAT file system format provides for larger storage capacity (for example, 1 Gigabyte). You may need to be an Administrator or a member of the Administrators group to perform this procedure.

Procedure

Step 1 Insert the USB key into a USB slot on the Windows XP computer.

Step 2 Select **Start** > **Control Panel** > **Administrative Tools** and double-select **Computer Management**.

Step 3 Expand the Storage tree and select **Disk Management**.

Step 4 Right-click the **Removable Disk** icon and select **Format**.

Step 5 Select **Yes** if you are asked whether you are sure that you want to format this partition.

Step 6 Select the **File System** and select **FAT32** from the list box. .

Step 7 Select **OK** and **OK** again when you are prompted to format the volume.