



Preinstallation Tasks

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Preinstall Tasks for Unified Communications Manager

Procedure

	Command or Action	Purpose
Step 1	Planning the Installation	Review the Planning chapter. Make sure to review the following: <ul style="list-style-type: none">• Decide on your installation method.• Decide on your cluster topology.• For IM and Presence Service, decide whether you are installing a standard deployment or an IM and Presence Service central cluster.• Review the Requirements and Limitations.
Step 2	Required Installation Information	Review the installation requirements and record the configuration settings for each server that you plan to install.
Step 3	Create virtual machines.	<ul style="list-style-type: none">• Get base OVA.

	Command or Action	Purpose
		<p>Note</p> <p>From Release 15 onwards, the OVA template is signed with sha512 using Cisco authenticated certificates to ensure that there is no tampering of the OVA file. To avoid seeing the "The certificate is not trusted" warning when using the OVA to create a new Virtual Machine, use the following steps:</p> <ol style="list-style-type: none"> a. Navigate to https://www.cisco.com/security/pki/codesign/. b. Download the Issuer Chain PKCS7 (PEM) file (right-click and choose Save link as) for the selected certificate that is used to sign the OVA file. The signing certificate used is documented in the File Information of the downloaded OVA page. c. Add these certificates to vCenter by following the steps in the 'Resolution' section at: https://kb.vmware.com/s/article/84240. <ul style="list-style-type: none"> • Run the Collab Sizing Tool to get the required virtual machine count and specs of each virtual machine. If you don't want to run the Collab Sizing Tool, follow the guidance in the OVA readme and the OVA wizard to select a predefined starting point, which can be changed later if needed. • If you are installing from a skip-install OVA from the factory preload of a Business Edition appliance, see the Installation Guide for Cisco Business Edition 6000 and 7000.

	Command or Action	Purpose
Step 4	Mount the installation ISO file.	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 mounts the ISO file and start the installation process. Do not begin the installation process until you have completed all the steps in this procedure.
Step 5	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, see the Cisco Unified Communications Solutions Reference Network Design .
Step 6	Verify the NTP status on the publisher node.	If the publisher node fails to synchronize with an NTP server, subscriber node installation can fail. On the Unified Communications Manager publisher node, run the <code>utils ntp status</code> CLI command.
Step 7	Complete the following firewall updates: <ul style="list-style-type: none"> • If a firewall is in the routing path between nodes, disable the firewall. • Increase the firewall timeout settings until after you complete the installation. 	Temporarily allowing 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 8	Do not run Network Address Translation (NAT) or Port Address Translation (PAT) between servers where you are installing the Unified Communications Manager.	
Step 9	Verify the NIC speed and duplex settings.	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 <code>Auto/Auto</code> ; do not set hard values.
Step 10	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].

	Command or Action	Purpose
Step 11	If you use DNS, verify that all servers on which you plan to install Unified Communications Manager are properly registered in DNS.	For details, see Verify DNS Registration, on page 6 .
Step 12	Licensing Requirements	Make sure that your system has adequate licensing.

Preinstall Tasks for the IM and Presence Service

Procedure

	Command or Action	Purpose
Step 1	Planning the Installation	Review the Planning chapter. Make sure to review the following: <ul style="list-style-type: none"> • Decide on your installation method and cluster topology. • For IM and Presence Service, decide whether you are installing a standard deployment or an IM and Presence Service central cluster. • Review the Requirements and Limitations.
Step 2	Supported Version	Make sure that the Unified Communications Manager and IM and Presence Service software versions are compatible.
Step 3	Required Installation Information	Gather all the information you need to complete the installation and configuration of the IM and Presence Service.
Step 4	Create your virtual machines.	For every node in your cluster, create virtual machines using the Virtual Server Template (OVA file) that is recommended for your release.

	Command or Action	Purpose
		<p>Note From Release 15 onwards, the OVA template is signed with sha512 using Cisco authenticated certificates to ensure that there is no tampering of the OVA file. To avoid seeing the "The certificate is not trusted" warning when using the OVA to create a new Virtual Machine, use the following steps:</p> <ol style="list-style-type: none"> a. Navigate to https://www.cisco.com/security/pki/codesign/. b. Download the Issuer Chain PKCS7 (PEM) file (right-click and choose Save link as) for the selected certificate that is used to sign the OVA file. The signing certificate used is documented in the File Information of the downloaded OVA page. c. Add these certificates to vCenter by following the steps in the 'Resolution' section at: https://kb.vmware.com/s/article/84240. <p>Different OVA files are available; choose the correct OVA file based on the environment in which you are deploying Unified Communications Manager. For more information, see https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-communications-manager.html.</p>
Step 5	Verify network connectivity.	Make sure that each IM and Presence Service server has network access to the Unified Communications Manager publisher server. Ping the Unified Communications Manager publisher node from the other IM and Presence Service servers.
Step 6	Enable the Cisco AXL Web Service, on page 6	Make sure that the Cisco AXL Web Service is enabled.

	Command or Action	Purpose
Step 7	Verify DNS Registration, on page 6	<p>If you use DNS, ensure that you have configured the hostname of the new IM and Presence Service 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 Service servers (if any).</p> <p>Note We recommend that you use the same DNS servers between IM and Presence Service 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 Service must either use DNS, or not use DNS, because it does not support mixed-mode deployments.</p>

Enable the Cisco AXL Web Service

Verify that the Cisco AXL Web Service is running.

Procedure

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- Step 1** Log in to the Cisco Unified Serviceability interface.
 - Step 2** Choose **Tools > Service Activation**.
 - Step 3** Under **Database and Admin Services**, make sure that the **Cisco AXL Web Service** status indicates **Activated**.
 - Step 4** If the status says **Deactivated**, activate it by checking the adjacent check box and clicking **Save**.
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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

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- 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.
