

Go To: Before You Buy or Deploy - Considerations for Design and Procurement

Cisco Unified Communications on Cisco Unified Computing System (UC on UCS) refers to Collaboration applications running in VMware virtual machines on Cisco Unified Computing System (UCS) blade or rack-mount servers.

UC on UCS has two major software licensing components:

- Cisco Collaboration Application licensing ? e.g. Unified Workspace Licensing (CUWL), User Connect Licensing (UCL), etc.
 1. Refer to the Ordering Guide for CUWL or each application for "users", "nodes", "ports", etc..
 2. Many virtualized Collaboration 8.x applications require a "Node Lock" license for each virtual machine called a Licensing MAC, which is a 12 digit HEX value created by hashing several parameters that you configure on the server. See **Licensing Model for Virtualized UC Applications** and the FAQ below for more details.
 3. The Licensing MAC is replaced by Cisco Enterprise Licensing Manager (ELM) for key Collaboration 9.x applications.
- Virtualization Software Licensing for each physical server hosting Collaboration applications.
 - ◇ See **Unified Communications VMware Requirements** and the FAQ below.

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Frequently Asked Questions

PAK, PAC or Serial Number? What virtualization software did I buy?

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PAK = cisco.com Product Authorization Key for Cisco Collaboration applications. Requires activation on cisco.com before usable as a "license".

PAC = vmware.com Partner Activation Code for Cisco-sold VMware software. Requires activation and combining on vmware.com before usable as a "serial number".

Pre-activated, pre-combined Serial Number = Ready-to-use license for Cisco Collaboration OEM virtualization software. Does not require any interaction with cisco.com or vmware.com to use.

See also [Unified Communications VMware Requirements](#).

Virtualization Software Option Example License SKU

Cisco UC

Virtualization Hypervisor 5.x

as part of Cisco Business Edition 6000 or Cisco Business Edition 7000

VMW-VS5-HYP-K9

Depending on BE6000 or BE7000 bundle, physically or electronically ships media. [Click here for license logistics details.](#)

Cisco UC

Virtualization Foundation 5.x

R-VMW-UC-FND5-K9

Electronically ships media with pre-activated, pre-combined **serial number**.

VMware

vSphere ESXi

Physically or electronically ships **PAC**. [a. <https://www.vmware.com/vmware> used for license logistics.]

- Standard Edition 5.x VMW-VS5-ST-1A
- Enterprise Edition 5.x VMW-VS5-ET-1A
- Enterprise Plus Edition 5.x VMW-VS5-EP-1A

- Must obtain media from vmware.com. If deploying on Cisco UCS hardware, use the "Cisco UCS custom image". The Cisco custom image ensures you have all of the components transparent to the Collaboration applications except when the generic image is used for support, Cisco TAC may require a generic image to be replaced with the Cisco custom image.
- Each PAC is per-populated-physical-CPU -socket - must be combined with the license key: <http://kb.vmware.com/selfservice/microsites/search.do?cmd=displayKb&search=0321404403>

What is included with my shipment?

See

http://docwiki.cisco.com/wiki/License_Activation_for_Cisco_UC_on_UCS#PAK.2C_PAC_or_Serial_Number.3F_.C2.A0

For more explanation of OEM options for virtualization software, see

http://docwiki.cisco.com/wiki/Unified_Communications_VMware_Requirements#Purchasing_2F_Sourcing_Options_for

How does the Partner/End User register their PACs?

NOTE: Cisco UC Virtualization Hypervisor and Cisco UC Virtualization Foundation DO NOT use PACs. They ship pre-activated/combined serial numbers and are not required to follow this registration procedure.


1. The Partner/End User is required to register the PAC(s) at the [VMware License Registration](#) to actually receive the VMware license file.
2. Once logged in as a valid user, the Partner/End User must register the PAC(s) (Partner Activation Code). They must ensure that the licensee information is that of their customer/end-user. If not done correctly, this will cause a problem during the registration and setup process.
 1. If the partner checks the personal box that is provided during the registration, it will show them as the contract owner which is incorrect. This personal box should not be checked during registration. If the partner registers incorrectly, it's imperative that they contact VMware and have a Support Request opened via the [VMware Support Center](#) to correct the registration process so that VMware can send out the licenses as requested to the correct party.
 2. Cisco is not able to make any corrections to their licenses. When the customer receives the PACs from Cisco for VMware, they will receive them in 1 CPU each and then they have the option to combine or reduce them if necessary from VMware's licensing portal. If they have two sockets in a machine, they cannot apply two one-CPU licenses to it. We send the licenses out this way because Cisco does not know how many CPUs the customer will want to use in a machine. If you run into a situation where the customer wants to split or combine their licensing, redirect them to the VMware licensing portal. This should allow them to split or combine as they choose.
 3. If a partner/customer wishes to combine to create one license for two CPUs vSphere four Standard, then they must adhere to the above registration. Again, if they do not follow the above, they will need to contact VMware for support. All licenses are issued from VMware and not Cisco.

Once registered, a VMware contract number is created.

- ◇ A partner has the ability to access/manage their VMware contracts on behalf of their customer/end-user by logging into the [VMware Account Management Portal](#).
- ◇ They can review the order information for each license issued and can click on the '+' to the left of each license listed via the [VMware License Management Portal](#).

What does the actual license file/key look like if the PAC registration process above is utilized correctly?

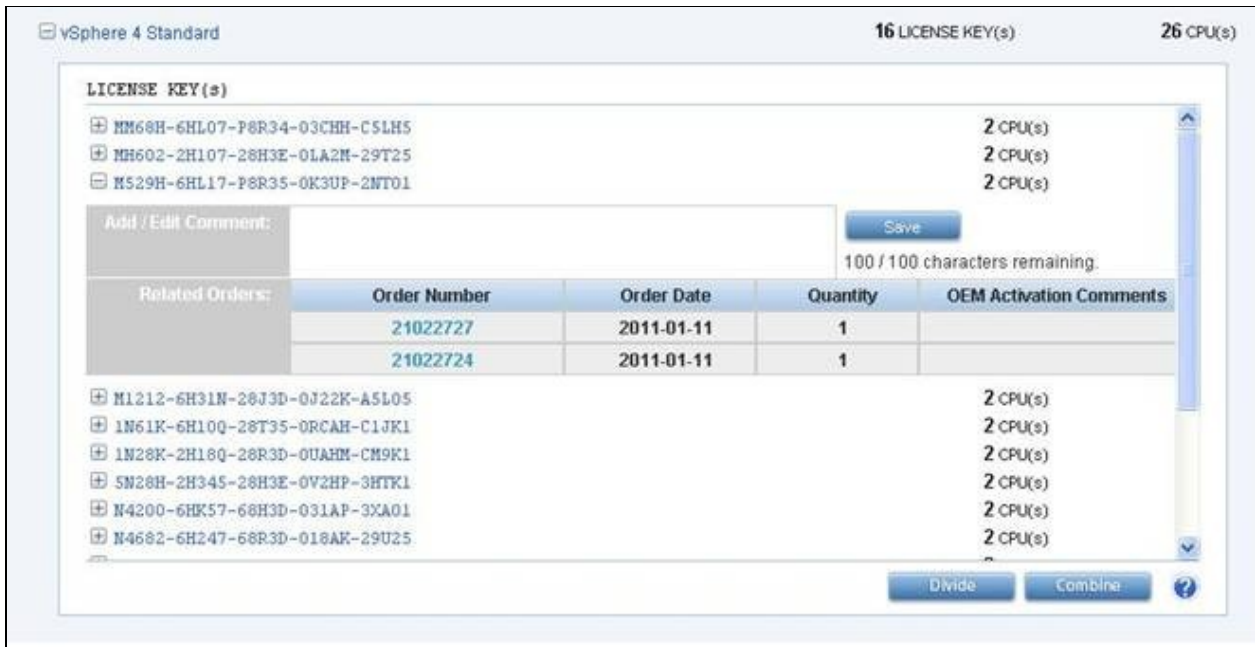
1. The PAC code, such as M5206-6A3C2-18JZC-8U38K-C9CNN, once redeemed at the site creates a VMware Order. This PAC generated Order 21022724.
2. During the order process, a license is issued as a result and associated to a contract. License 51210-2H39N-28R3A-0VAKP-C43K1, was issued for Contract 41626652 (Order 20122724).

 **Note:** This is a sample customer license and contract with VMware.

What is included with my shipment?

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3. In the vSphere 4 license model, licenses are combined or divided in the license portal as determined by the organization's License Administrator. The original license (or licenses) is replaced by a new 'cloud key' that is then used by the customer.
4. For the scenario above the customer did create a new 'cloud key' and the original serial number has been replaced in the customer's vSphere license portal by 'cloud key', M529H-6HL17-P8R35-0K3UP-2NT01. This is verified by the Order 21022724 info displayed when expanding the '+' to the left of the license displayed. The following image is a sample display of a portal:



If I lose my PAC, how do I retrieve this from Cisco?

The partner/customer will need to open a Service Request for Licensing with TAC stating that they have lost their VMware PAC and need to have it resent to them.

How can a partner/customer have a new PAC/License added to their contract?

The customer will need to work through their Partner as they normally would when setting up a contract or adding serial numbers. The Partner will need to work through their Services Account Team with Cisco.


What if the Partner/End User did not receive all the necessary PAC's for their order?

1. A fulfillment tool configuration error was found for all VMware licenses purchased via Cisco collaboration part number prior to October 15, 2010 which only shipped half of the entitled Partner Activation Codes. You should have received a special shipment with instructions on how to install the remaining entitled licenses. If you did not receive that shipment/follow the installation instructions, then send your Cisco Sales Order number to the following alias, vmw-mfg@cisco.com.
2. You need to request the balance of your entitlement if you are impacted by this configuration error. Register the PAC (Partner Activation Code) you originally received with the shipment and then

What does the actual license file/key look like if the PAC registration process above is utilized correctly?

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register the PAC you received in a 2nd correction shipment. Install both sets of licenses as instructed in the VMware manual you received or at the [VMware Support Center](#).


 **Note:** Additional information is available to the partner/end-user after you have submitted your Support Request at VMware and you may review the status of your Support Request at anytime by accessing http://www.VMware.com/support/sr/sr_history.jsp.

What are the different types of Cisco UC License Registrations?

1. Cisco UC applications ship a Product Activation Key (PAK) that are registered at <http://www.cisco.com/go/license>. If the product is installed on a physical server, use the MAC Address of that physical server. License files are then emailed to the contact provided during registration, then uploaded to the UC system per the applicable Installation or Administration guide.
2. If you are installing Unified Communications 8.x applications on VMware, use the ?License MAC? available following installation or via the [Answer File Generator](#) prior to installation. The License MAC is based on several factors - time zone, NTP server, NIC speed, hostname, IP address, etc. and must be retrieved from the system. Details about the License MAC can be found at [Licensing Model for Virtualized UC Applications](#). See the next section for License MAC specifications.
3. If you are installing Unified Communications 9.x applications on VMware, these use Enterprise Licensing Manager (ELM) instead of the "License MAC".

How do I retrieve/compute the License MAC for my specific application?

Below is the list of each VTG product for retrieving the License MAC if applicable:

UC Application	License MAC Details
Unified CM	The License MAC is retrieved by running a ?show status? command from the CLI. {{ notel Unified CM licenses are locked to the server and not the primary node. }}
Cisco Unity Connection	 Note: Unity Connection licenses are locked to the server and not the primary node. In a High Availability setup (Publisher and Subscriber). Two separate licenses are required, one for each Virtual License MAC.
Unified Contact Center Express/IPIVR	The License MAC is retrieved via the CCX Wiki. Additional installation information is available.
Unified Contact Center Enterprise	Does not use License MAC.
Unified Customer Voice Portal	Does not use License MAC.
Cisco MediaSense	Does not use License MAC.
Cisco SocialMiner	??
Cisco Unified Presence	The License MAC is retrieved the same as CUCM For a VMware license for CUP, the CUP software MUST be loaded prior to requesting the license.

What if the Partner/End User did not receive all the necessary PAC?sf for their order?

Cisco Unity	Licensing for VMware is the same as licensing on the physical hardware.
Cisco Emergency Responder	The License MAC is retrieved by running a ?show status? command from the CLI.

What if my License MAC parameters change for a virtual machine for UC on UCS?

If any of the license MAC parameter values change (such as changing NIC speed, IP address, time zone, DNS servers) you will need to re-compute the License MAC and then open a TAC Service Request with Licensing via the [TAC Service Request Tool](#) and submit a request for a re-host of the license MAC from the original value to the new value. Be sure to state that this is for virtual machines.

How does one collect and up-load log files and trouble-shoot any problems?

If you have not had the opportunity to upload log files related to the problem you are experiencing please do so now. This will expedite the resolution of your problem. See this [VMware knowledge base article](#) to review the steps required to collect and upload log files.

Where can I find additional resources and assistance for VMware?

1. For Cisco Unified Communication Virtualization support of VMware, see the [Unified Communications in a Virtualized Environment](#) DocWiki space (particularly the [VMware Requirements](#) page).
2. VMware also offers several web-based resources to assist customers with finding answers to their questions quickly. Many issues reported by users are addressed and posted in their [knowledge base](#).
3. In addition, VMTN (VMware Communities) discussion forums are available at <http://www.VMware.com/community/index.jspa>. The VMware user community shares workarounds, fixes, technical tips, and other valuable information about using their products.
4. Based on the support contract you purchased with your VMware software, you are entitled to a Customer Service Request. VMware will review your Support Request and respond appropriately based on the severity of your issue in accordance with their response policy at: <http://www.VMware.com/support/policies/response.html>. If you have purchased a Cisco support contract for VMware, then you are entitled to a TAC Service Request. You can open a Service Request via the [TAC Service Request Tool](#).
5. Finding your VMware licenses on the Account Management Portal: http://kb.VMware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=10
6. Split and Combine License keys on vSphere: http://kb.VMware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=10
7. Licensing ESX 4.x, ESXi4.x and vCenter Server: 4.x http://kb.VMware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=10
8. If your customer is still using the VI3 environment, the customer can downgrade their VS4 product to VI3 by following the steps providing at http://kb.VMware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=10
9. Not all VS4 products cannot be downgraded to VI3--some VS4 products when downgraded lose some features offered only in the VS4 license. (VS4 Advanced downgrades to VI3 Standard and loses the VMotion Component as a result.) See

http://www.VMware.com/support/licensing/vsphere_troubleshooting/downgrade.html for more information.

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