Cisco License Manager Deployment: A Quick Start

Cisco[®] License Manager is a free software application that helps enable system administrators to easily acquire and deploy Cisco IOS[®] Software licenses on devices that require Cisco licensing - as well as manage the status of licenses for an entire network. This short deployment overview will provide you with a high-level perspective on Cisco License Manager deployment options and processes.

Overview

Cisco License Manager is a standalone application from Cisco that helps you rapidly deploy multiple Cisco software licenses across their networks. Cisco License Manager can discover network devices, view their license information, and acquire and deploy licenses from Cisco. The application provides a graphical user interface (GUI) that simplifies installation and helps enable you to automate license acquisition, as well as perform multiple licensing tasks from a central location. You can also use the Cisco License Manager application programming interface (API) to create your own programs for performing licensing tasks.

Deployment Flexibility: Cisco License Manager Deployment Models

Cisco License Manager can be installed as a client/server application on a single Microsoft Windows, Solaris, or Linux machine or on separate machines.

Single-Machine Deployment

In many cases, customers choose to deploy Cisco License Manager on a single PC. A single-machine implementation is easy to install and manage, and it is the recommended approach when only one GUI client will be used for most licensing tasks. The Cisco License Manager server component performs all licensing functions and interaction with the Cisco license portal. The client component provides the GUI interface.

Separate-Machine Deployment

This method allows multiple users to handle licensing tasks, each with their own client that communicates with a central server. By deploying clients and server separately, you can optimize performance and easily accommodate multiple or mobile users.

Connecting to Cisco.com Through the Internet

Cisco License Manager is deployed within a customer's premises and communicates securely with customer devices. To download Product Authorization Key (PAK) information, obtain licenses, or rehost licenses, it must have connectivity to Cisco.com. Cisco License Manager can communicate through a business firewall using the HTTPS protocol. See Figure 1.

Figure 1. Cisco License Manager communicates with the Cisco.com Product License Registration Portal over a secure connection.
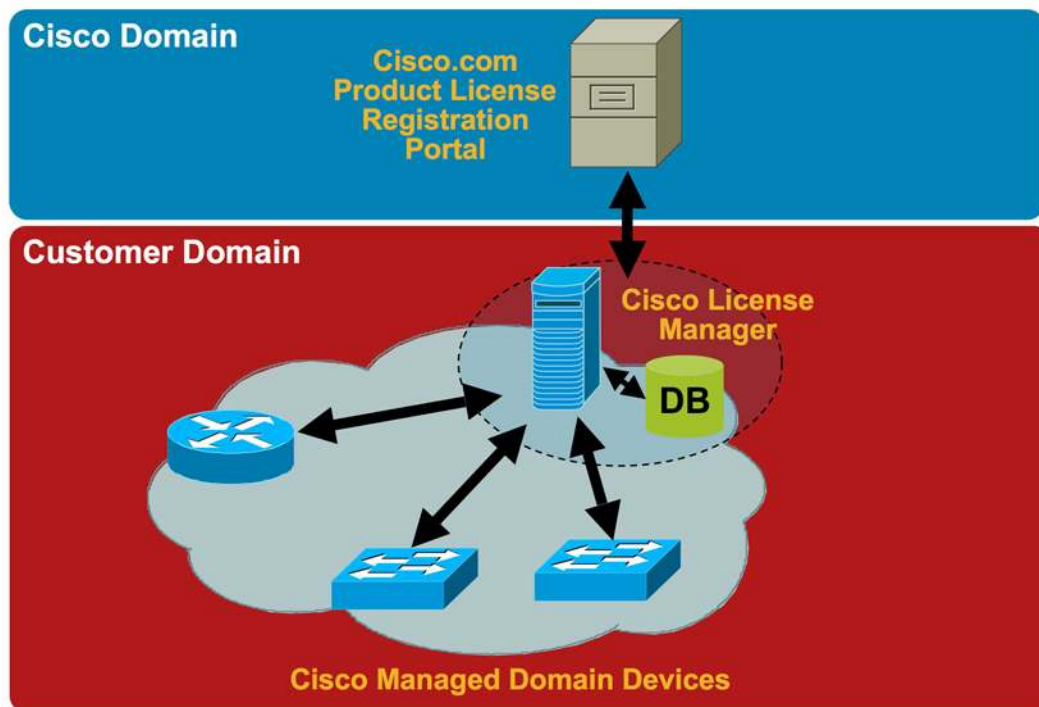
Supporting Isolated Networks

Some networks are kept isolated from the Internet for security reasons, and in these cases, you can obtain license keys manually, or perform a two-stage deployment of Cisco License Manager. In a two-stage deployment, Cisco License Manager is installed on a host in the isolated network, where it discovers Cisco devices with licensing capability and builds an inventory of licenses. When completed, you can move Cisco License Manager to a network domain with Internet connectivity and fulfill licenses through the Cisco licensing portal. Cisco License Manager can then be moved back to the original isolated network domain for license deployment. For specific details on this type of deployment, please visit www.cisco.com/go/clm and obtain a white paper, *Deploying Cisco License Manager in Isolated Networks*.

Configuring Cisco Devices for Managing with Cisco License Manager

There are several steps required before your Cisco devices recognize Cisco License Manager. Each device can be configured to always use License Agent/HTTP for authenticating incoming requests using the **ip http server command**. This enables the HTTP server on the Cisco IOS Software, which is required by the License Agent.

Configure the License Agent using the **license agent listener http plaintext /lic-agent authenticate** command. Enter the following at the command line: **license agent notify** *http://userpc01:80/clm/servlet/notify_URL_in_propsfile user password*. *Userpc01* in the URL should correspond with the target Cisco License Manager server hostname. If you do not want to enable the HTTP server on your devices, Cisco License Manager can manage them using the command-line interface (CLI) over Telnet or Secure Shell (SSH) protocol. For details about these commands, see your Cisco IOS Software documentation.

Configuring Cisco License Manager

Cisco License Manager is easy to download and configure. Simply download the application and run the installer program. The GUI will then take you through the process step by step, allowing you to install the client package, server package, or both. Next, complete the basic preparation, making sure that the Cisco License Manager hostname exists in the Domain Name System (DNS) and verifying that your Cisco.com user ID, e-mail ID, and password are correct in your user profile.

Device Management and Integration

You can use the same GUI to discover devices in your network using the network IP address and subnet mask. The GUI prompts you for this information, and once it is provided, Cisco License Manager communicates with the License Agent on each of the devices on the network.

When discovering devices, you specify the protocols to be used for communicating with network devices - HTTP, HTTPS, TELNET, or SSH. You only need to provide a list of usernames and passwords to be used when communicating with devices, and Cisco License Manager will find out which username and password pair should be used.

Discovered devices are added to the inventory and become visible in the GUI, where you can browse all of the license information for managed devices. Cisco License Manager keeps its license database synchronized with network devices by listening to notifications from managed devices. You can also click a device to manually synchronize its license information with Cisco License Manager.

Cisco License Manager also periodically polls devices to keep license information in the database current. You can set the start date and time for polling, and the Cisco License Manager default setting is to poll once daily. However, you can set different start dates or times and poll licenses less frequently through a convenient drop-down box. You can check for expired licenses and be notified in advance of expiration dates or each time you log into Cisco License Manager.

Cisco License Manager allows you to track active feature sets, inactive feature sets, current licenses, temporary license expiration, and other data. Cisco License Manager will also compile device license data into summary and detail reports for easy reading. With current, accurate information about each device and its licensing status, you can make informed decisions about which licenses to activate and which stock keeping units (SKUs) to purchase for installing new feature sets.

Working with CiscoWorks

CiscoWorks LAN Management Solution is a popular tool for managing Cisco devices. When device information has already been entered in CiscoWorks, you can export this device data to an XML file, which can then be easily imported into Cisco License Manager. Cisco License Manager can reside with CiscoWorks on the same server, eliminating the need to purchase any new hardware for its use.

To import a device currently in CiscoWorks LAN Management System to Cisco License Manager, run the following script to import the CiscoWorks LAN Management System device into Cisco License Manager: **runLMSDeviceImport.bat <lms_install_idr> <lms_repository_user_name> <CLM admin's password> <CLM server host> <CLM server port>**

Example: **runLMSDeviceImport.bat Perl "c:\program files\LMS" lms_username clm_passwd joannec-wxp02 1099**

Importing Device Data from XML

If your network management applications already capture device information, you can export it to an XML file format supported by Cisco License Manager, eliminating the need to reenter data or perform network discovery. Cisco provides an import utility script that creates Cisco License Manager inventory objects using an XML file.

The import utility is $CISCO_LM_HOME/bin/clm_import.bat.

Usage: **clm_import.bat** <*adminpassword*> {-*email absolute_file_path*}

where

- *adminpassword* is the Cisco License Manager administrator password
- If the e-mail option is specified, the second argument is a filepath that designates where the .lic file sent to your email by the Cisco license portal is stored.

After running the Cisco License Manager import script, you can log into the GUI and poll licenses for all the imported devices. This action updates both the license and device status for all the imported devices.

Now Get Started

Cisco License Manager provides a powerful, yet easy-to-use solution for obtaining and managing Cisco IOS Software licenses. A simple setup and configuration process provides flexible options for quickly deploying Cisco License Manager and a friendly GUI to take you through the steps of installation and device discovery. For more details about deploying Cisco License Manager, please visit http://www.cisco.com/go/clm and use the Getting Started with Cisco License Manager guide.

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