



# Cisco License Manager 3.1

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Cisco announces Cisco® License Manager 3.1 for managing Cisco IOS® Software activation and license management for a wide range of Cisco platforms running Cisco IOS Software, as well as other operating systems.

## Product Overview

Cisco License Manager is a secure client/server-based application to manage Cisco IOS Software activation and license management for a wide range of Cisco platforms running Cisco IOS Software as well as other operating systems. It automates the workflow associated with Cisco IOS Software activation through its wizard-based GUI and scales for large network deployments. Cisco License Manager accelerates deployment of feature licenses with its intuitive GUI and simple, rule-based policy interface, helping enable you to rapidly roll out advanced services in your networks.

Cisco License Manager 3.1 offers an optional, full-functionality Java-based Software Development Kit (SDK) for integration with your existing license and asset management products and protects your investment in these assets. In addition, Cisco License Manager 3.1 integrates and coexists with CiscoWorks LAN Management Solution (LMS) 3.1 and later, and with Cisco Configuration Professional.

Cisco License Manager has enhanced security, with role-based access control, and it limits access for each user to managed devices and Product Authorization Keys (PAKs) through Access Control Lists (ACLs). Improved reporting capabilities aid in audit compliance.

Table 1 lists the major new features for this release:

Feature	Description and Benefit
<b>Windows 7 and Windows Server 2008 support</b>	Cisco License Manager (CLM) now runs on the latest Microsoft Windows Operating Systems in addition to Windows XP/Server 2003, Solaris, and Red Hat Linux
<b>TACACS+ device login Support</b>	Allows CLM to access TACACS+ controlled devices with telnet or SSH
<b>CLM client fixed port communications</b>	Allows CLM clients to connect to the CLM server through a firewall
<b>Oracle data base support</b>	Provides faster response and greater scalability by using a customer provided, external Oracle 11 database
<b>Seed file Device Discovery</b>	CLM can now learn about devices in the network by importing a .csv file with IP addresses making device discovery faster and easier
<b>Dual Homed (dual-NIC) Support</b>	Allows CLM to access the internal device management network with a different network interface than is used for Internet connectivity providing better security
<b>Enhanced Counted License Support</b>	You can now specify the number of licenses to be installed on a device, when applicable, making it easier to install counted licenses
<b>RMA Enhancement</b>	CLM can now perform an RMA Transfer of licenses between two devices with the same IP address making it easier to replace failed devices
<b>Global password change</b>	Device passwords can now be changed in bulk in CLM making it easier to keep CLM updated with periodic password changes
<b>Report Export Enhancement</b>	CLM reports can now be exported in their entirety to a .csv file for use by other programs making offline analysis simpler

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## Other Cisco License Manager Capabilities

### Autodiscovery

Automatically discovers all devices with license enforcement capabilities. In addition, CLM builds an inventory of device characteristics and licensed features.

### Device and PAK Search Capabilities and Management

Cisco License Manager provides users with enhanced search capabilities in the list of devices and list of PAKs and highlights the matches to effectively manage devices and PAKs. In addition, searches can be limited to partitions of the network.

### Security and Virtualization

Cisco License Manager user-security model supports role-based access control and provides the following five user roles:

- Administrator: Can access all functionality
- Inventory Manager: Can update inventory, device access information, and all functionality available to roles below it
- PAK Manager: Can view and manage PAKs and all functionality available to roles below it
- License Manager: Can obtain and deploy licenses and all functionality available to roles below it
- Reports Manager: Can only view and generate license reports

Cisco License Manager allows you to restrict access to managed devices and PAKs through access control lists for each user. With this feature, you can virtualize one Cisco License Manager installation into multiple user views. Cisco License Manager can be deployed in the VMware ESX Server 3 Virtual Machine environment.

### Obtain Licenses from Cisco.com

With a Cisco supplied PAK, you can associate feature SKUs with devices and securely connect to the Cisco.com license server to automatically get license keys. This reduces the complexity associated with software activation. You can also obtain licenses for pre-deployed or offline devices. Cisco License Manager resides at the customer premises and has access to the customer network and needs Internet connectivity to Cisco.com for many of its features. For isolated networks, it supports two-stage license deployment where customers can move Cisco License Manager to a network domain with Internet connectivity, and obtain and save licenses to its database by securely communicating with the license server at Cisco.com. Cisco License Manager can then be moved back to the original isolated network domain to deploy previously obtained licenses to network devices. Please see the Deploying Cisco License Manager in Isolated Networks white paper located at <http://www.cisco.com/go/clm> for more details.

### Rapid License Deployment

Simple rule-based policy language completely automates software activation and license management. You can create a simple rule-based policy using common device attributes such as device model, device group, and IP address range, and assign a PAK to this policy. This policy can be executed on an on-demand basis, and Cisco License Manager will automatically obtain and deploy the appropriate licenses to the managed devices, matching against the rules in the policy. This helps enable you to focus more on rolling out advanced services in your network, using the licensed features.

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## Transfer Licenses from One Device to Another

You can rehost your licenses by selecting the source and destination devices. Cisco License Manager simplifies this procedure by securely obtaining rehost permission from Cisco.com, revoking the license from the source device, and obtaining and installing the transferred license to the destination device, as well as installing a temporary license for the feature being transferred, to give you enough time to migrate all connections or traffic to the destination device.

## RMA License Transfer Functionality

Cisco License Manager allows users to transfer licenses from a failed device to the replacement device with a simple operation. This is normally in conjunction with a Return Materials Authorization (RMA); however the license transfer functionality is supported for valid licenses regardless of whether the failed device is under a support contract or being returned through the RMA process.

## Agentless Device Management

You can use Cisco License Manager to manage licenses on Cisco devices using a Command-Line Interface (CLI) with Secure Shell (SSH) Protocol/Telnet without needing to configure or enable any agent. In addition, Cisco License Manager can communicate with the license agent in Cisco IOS Software using Extensible Markup Language (XML) over HTTPS.

## Detailed Reporting

Detailed reporting helps you know exactly which licensed software features you have purchased, how many licenses you have obtained, and which licenses are not yet deployed, as well as identify licensable features on devices and check to see whether those features are activated by license. It also aids in audit compliance through its licensing reports indicating proof of purchase. This feature saves costs by generating redeployable license reports, listing licenses that are deployed on devices but are not needed there. The Return Merchandise Authorization Discrepancy report helps you identify inadvertent license discrepancies that can fail audits. Also, Cisco License Manager provides improved reporting with device capabilities and filtering based on various attributes.

## Java SDK

This feature allows you to integrate your license and asset management software with Cisco License Manager and help protect existing investments.

## Faster Failure Recovery and Troubleshooting

This feature helps enable you to redeploy licenses from the Cisco License Manager database in case a license is accidentally removed or is corrupted. It also provides the capability to resend licenses from the Cisco.com license server for the device with failed storage and redeploy them. This results in less network downtime. Cisco License Manager also provides the capability to backup and restore its embedded database and configuration files. In addition, Cisco License Manager provides detailed troubleshooting and diagnostic capabilities to identify the root cause of connectivity failure to devices and the Cisco.com license server. Cisco License Manager presents alerts from devices with ITU X.733–based severities.

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## Broad OS Support

Cisco License Manager supports the following operating systems:

- Windows Server 2003 R2 Standard Edition, 32 bit
- Windows Server 2008 R2 Enterprise Edition, 64 bit
- Windows XP Professional, 32 bit
- Windows 7 Professional, 32 and 64 bit
- Solaris 10
- Red Hat Linux Enterprise 5

## Supported Network Elements

Cisco License Manager supports the following devices:

- Cisco 1900, 2900, 3900 Series Integrated Services Routers G2 (modular)—Cisco IOS Software Release 15.0(1) and later
- Cisco Aggregation Services Router 1001 (ASR1001) – Cisco IOS Software Release XE 3.3.0S and later
- Cisco ACE Application Control Engine Module—Software Release 3.1.0A1(3) and later
- Cisco Catalyst® 6500 Series Firewall Services Module—Software Release 3.1 and later
- Cisco Unity® Express Network Modules—Software Release 7.1.1 and later
- Cisco ASR 9000 Aggregation Services Routers—Cisco IOS XR Software Release 3.9 and later
- Cisco Application eXtension Platform (AXP)—Software Release 1.5 and later
- Cisco uBR10000 Series Universal Broadband Routers—Cisco IOS Software Release 12.2(33)SCC and later
- Enhanced EtherSwitch® Service Modules for Integrated Services Routers (ISRs) starting with Release 12.2(52)SE and later
- Cisco Catalyst 4500E Series Supervisor Engine7-E —Cisco IOS Software Release XE 3.1.1SG and later
- Cisco Catalyst 3750-E/X Series Switches—Cisco IOS Software Release 12.2(35)SE and later
- Cisco Catalyst 3560-E/X Series Switches—Cisco IOS Software Release 12.2(35)SE and later
- Cisco Catalyst Blade Server (CBS) 3100 Series Switches—Cisco IOS Software Release 12.2(35)SE and later
- Cisco 2811, 2821, 2851, 3825, and 3845 Integrated Services Routers (modular)—Cisco IOS Software Release 12.4(15)XY and later
- Cisco 1861 Integrated Services Router—Cisco IOS Software Release 12.4(11)XW and later
- Cisco C860 and C880 Integrated Services Routers (fixed)—Cisco IOS Software Release 12.4(15)XZ and later
- Cisco Unified Communications 500 Series for Small Business—Cisco IOS Software Release 12.4(11)XW6 and later
- Cisco Intrusion Prevention System Advanced Integration Module—Cisco IPS Software Release 6.0(4) and later
- Cisco XR 12000 Series Routers—Cisco IOS XR Software Release 3.6 and later

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- Cisco MDS 9000 Family of Multilayer Switches—Cisco MDS 9000 NX-OS Version 3.3.x and 4.1.1x and later
  - Cisco 5500 Series Wireless Controllers—Cisco Unified Wireless Networking Software Release 6.0 and later

### Availability

Cisco License Manager 3.1 is available starting in May 2011.

### Ordering Information

Cisco License Manager, consisting of GUI-based client and server software, is offered free and can be downloaded from Cisco.com. To place an order, visit the Cisco Ordering Homepage.

### Service and Support

The Cisco License Manager GUI client and server software is offered free of cost, and no service contract is needed. A service contract is available for the optional Cisco License Manager Java SDK product, and customers must purchase a Software Application Support (SAS) contract to receive access to technical assistance through the Cisco Technical Assistance Center (TAC) or <http://www.cisco.com>. Service part numbers can be found on the Cisco.com online ordering tools and price lists.

### For More Information

For more information about Cisco License Manager, visit <http://www.cisco.com/go/clm>, contact your local Cisco sales representative, or send an email to the product marketing group at [ask-clm-pm@cisco.com](mailto:ask-clm-pm@cisco.com).



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