Cisco Prime Unified Provisioning Manager 9.0
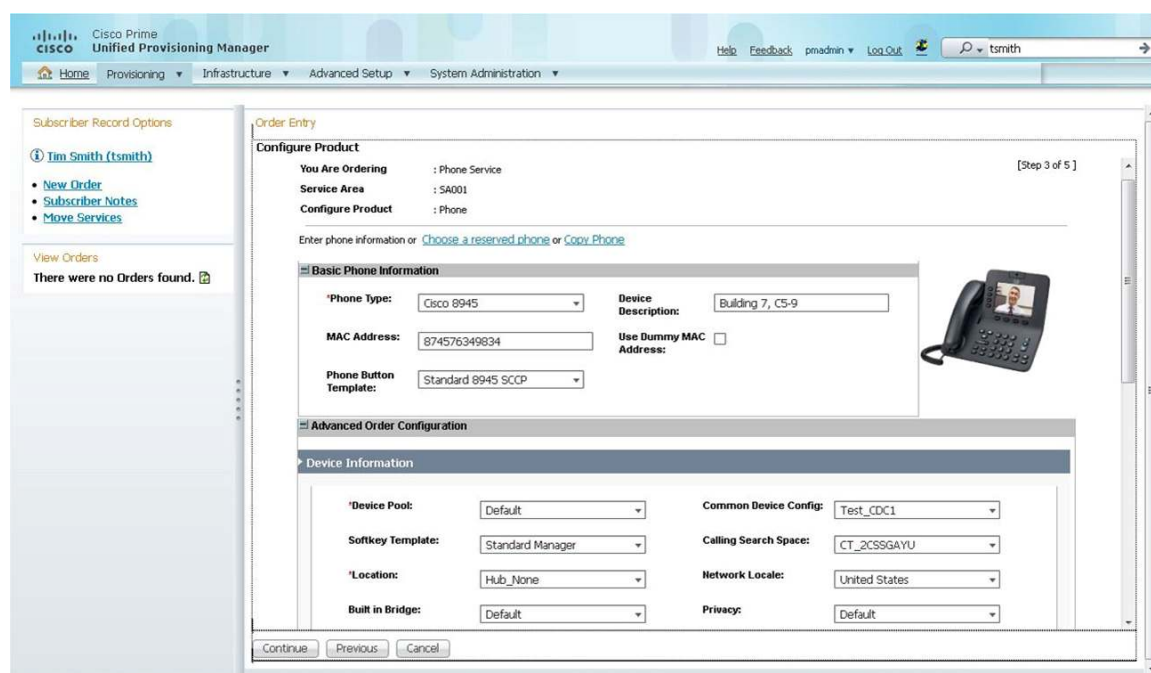
Cisco Unified Communications

Cisco® Unified Communications (UC) solutions unify voice, video, data, and mobile applications on fixed and mobile networks, facilitating easy collaboration every time from any workspace. Part of a comprehensive solution that includes network infrastructure, security, wireless, management, or third-party applications and lifecycle services, Cisco Unified Communications management solutions, of which Cisco Prime™ Unified Provisioning Manager (UPM) is a part, can accelerate deployment, provide cost savings, and enhance productivity.

Product Overview

Cisco Prime Unified Provisioning Manager is a component of the Cisco Prime Unified Communications Management Suite, consisting of Cisco Prime Unified Provisioning Manager, Cisco Prime Unified Operations Manager, Cisco Prime Unified Service Monitor, and Cisco Unified Service Statistics Manager. Designed specifically for managing Cisco Unified Communications solutions, the Cisco Prime Unified Communications Management Suite offers comprehensive provisioning, monitoring, and troubleshooting capabilities throughout the solution lifecycle.

Cisco Prime Unified Provisioning Manager is a provisioning application for Cisco Unified Communications initial deployments and implementations. With automated processes for initial deployment and "day-2" additions and changes, Cisco Prime Unified Provisioning Manager facilitates rapid installation and maintenance of Cisco Unified Communications components. With this tool, Cisco customers have achieved 10:1 productivity improvement for time to deployment and subscriber moves, adds, and changes. See Figure 1.

Figure 1.   Cisco Prime Unified Provisioning Manager GUI

Cisco Prime Unified Provisioning Manager significantly speeds deployments, which reduces the ongoing costs and expertise required to manage the changes that occur once the network is operational. A knowledgeable administrator is able to configure policy at various levels that will enforce who is able to do delegated management; for whom that delegation applies; how business-level services apply to voice and messaging applications; and which types of end users (subscribers) are permitted to use which standard services.

Through the use of this policy and standard configuration approach, provisioning and activation of subscriber services are greatly simplified, while the overall ability to manage and provide services that make use of the underlying Cisco Unified Communications applications is retained. Costs are reduced, time to dial tone is reduced, and errors are practically eliminated. Subscribers are more satisfied, and your IP communications professionals have more time to focus on higher-value activities than repetitive operational issues.

Cisco Prime

Cisco Prime for Enterprise is an innovative strategy and portfolio of management products that empower IT departments to more effectively manage their networks and the services they deliver. Cisco Prime is built upon a network services management foundation and a set of common attributes. It delivers an intuitive workflow-oriented user experience across Cisco architectures, technologies, and networks. Cisco Prime simplifies network management, improves operations efficiency, reduces errors, and makes the delivery of network services more predictable.

Features and Benefits

Business-Oriented Approach with Workflow Automation

Cisco Prime Unified Provisioning Manager permits standard services (phone, line, and voicemail, for example) to be ordered for subscribers (the owner of the individual phone, voicemail, or other service). Cisco Prime Unified Provisioning Manager processes all changes to the underlying Cisco Unified Communications applications as an order. An order may be created to make a subscriber-level change (to a phone or line, for example) or an IP communications-level infrastructure change (such as provisioning a new calling search space or route pattern). All orders in the system are tracked and viewable, both across orders and by subscriber name or ID. A simple wizard-driven approach is used for ordering services. Cisco Prime Unified Provisioning Manager permits delegation of the order management capability so that requests for service additions, changes, or cancellations can be done without requiring an underlying knowledge of the voice applications that are delivering those services. Cisco Prime Unified Provisioning Manager provides the same ordering experience regardless of the technology delivering the Cisco Unified Communications services.

Infrastructure Templates

Configuration templates provide the ability to autoconfigure the Cisco Unified Communications voice infrastructure in a consistent way. Templates can be created to initially configure or reconfigure Cisco Unified Communications components. When pushing a template to a device, users may specify an optional keyword list, which defines the values of the keywords to be used (replaced) during the provisioning operation. Optionally, templates can be nested to form larger templates or can be scheduled for a later time. The Cisco Prime Unified Provisioning Manager template capability permits the definition of standard configurations that can be used in situations such as rolling out new offices, locations, remote sites, or organizational overlays.

Batch Provisioning

Subscriber services may be ordered using the web interface on an individual basis for a single subscriber. However, when deploying a large number of services, it is often desirable to combine these together into a single batch, which can be scheduled to run at a later time. Cisco Prime Unified Provisioning Manager permits a single batch to contain multiple types of orders: add, change, or cancel. It also permits multiple types of services to be specified in a single batch operation; for example, a batch can contain a combination of phone and voicemail additions or changes. Batches can also be created to manage dial plan settings or infrastructure configuration changes in Cisco Unified Communications Manager. Batches can be run immediately upon uploading to Cisco Prime Unified Provisioning Manager or may be scheduled for execution at a later time.

Quick Site Builder

The Quick Site Builder UI consolidates the configurations needed to define a new site or branch in Cisco Prime Unified Provisioning Manager (Figure 2). A domain group can be created to represent a site or grouping of individuals to be managed together along with the class of service templates needed to provide automated service activation. This tool eliminates the need to access multiple UIs or create a batch file to build a site. This reduces errors and provides an all-at-once view of the settings before committing to build the site.

Figure 2.   Cisco Prime Unified Provisioning Manager Quick Site Builder UI

Role-Based Access

Cisco Prime Unified Provisioning Manager provides two dimensions to roles, depending upon whether the person is a user of the system or a subscriber of services. User roles define access to certain functions exposed through the web interface to an administrator of the system. The subscriber role refers to the role that a subscriber will have within an organization; the role dictates the services for which subscribers are entitled. User roles and subscriber roles are configurable by the administrator. Orders for subscribers are tracked in the subscriber record and order tracking system. Administrator access and password/PIN administration is tracked in the security audit trail, which can be exported for company security audits.

Application Programming Interface

The Cisco Prime Unified Provisioning Manager API provides a web services interface, using Simple Object Access Protocol (SOAP) over HTTPS, for submitting provisioning requests from external applications or gathering provisioning, inventory, or auditing information from the Cisco Prime Unified Provisioning Manager database. Integration with Unified Provisioning Manager can be for various reasons, including integrating into business, directory, or security systems. Some typical examples:

- Integration with front-end business applications such as human resource systems that contain employee information, or existing web service portals that consolidate various IT services across an enterprise
- Integration with back-end systems to manage non Cisco or legacy voice applications
- Custom/branded web interface for subscriber self-service provisioning and password management

The general features Unified Provisioning Manager provides are listed in Table 1.

Table 1. Features and Benefits

Feature	Benefit
General	
Virtualization	Can be deployed with other Unified Communications or management applications in a virtualized/blade server environment including Cisco Unified Computing System™ (Cisco UCS™).
Northbound API	Allows integration with custom applications, web service portals, and human resources systems for automated provisioning and self-care systems.
Active Directory Integration	Subscribers and administrators can authenticate against Active Directory. Additionally, subscribers can be synced into UPM based on filter criteria and automatically be placed into the appropriate UPM domains. Each domain can be synced to a different Active Directory source.
Audit Trail	Orders for subscriber and infrastructure changes placed through UPM are tracked and can be referenced to determine what was changed, who changed it, and when.
Infrastructure Configuration (Day-1 Support)	
Quick Site Builder	Single UI tool for rapidly building out a new domain group with associated class of service templates to define a new site or branch location.
Batch and Template-Based Provisioning	• Consistent, rapid deployment of new infrastructure elements or sites. • Mass infrastructure or dial plan adds or changes.
Template-Based Cisco IOS® Provisioning	Create, import, and manage Cisco IOS configuration templates for automated Cisco IOS provisioning.
Consolidated View of Unified Communications Devices	Single view of a subscriber and the subscriber's services.
Role-Based Access	Delegation of infrastructure management and move, addition, change, and delete (MACD) functions to domain administrators and domain help desk personnel.
Provisioning Policy Settable at Several Levels	Automated provisioning based on preset policies for services, service areas, and subscriber types.
Inventory Tracking	• Access to information about all services, devices, and subscribers. • Inventory that can be searched and reported on.
Autopopulation/Synchronization	Easy addition of Cisco Prime Unified Provisioning Manager to an existing Cisco Unified Communications network.
Additions and Changes (Day-2 Support)	
Subscriber Services Wizard	Simplified policy-driven Day 2 provisioning interface.
Domain Administration Capability	Allows different administrators to manage different groups of subscribers.
Batch Provisioning	• Mass user additions or changes. • Consistent approach for easier system maintenance.
Order Workflow	• Allows functional areas, such as finance, warehouse, or shipping, to be added to the provisioning process. • Email notification of pending workflow actions.

Products Managed by Cisco Prime Unified Provisioning Manager 9.0

Cisco Prime Unified Provisioning Manager manages Cisco Unified Communications Manager and the Cisco Unified Communications Manager side of Presence provisioning and Unified Mobility, as well as client provisioning for Cisco Unified Personal Communicator, Cisco Unity®, Cisco Unified Communications Manager Express, Cisco Unity Express, and Cisco Unity Connection. Cisco Prime Unified Provisioning Manager can also sync to the Cisco Presence server to get presence settings and manage subscriber's presence settings.

Note: See the Cisco Prime Unified Provisioning Manager Supported Devices Table for specific versions that have been certified in testing at
http://www.cisco.com/en/US/products/ps7125/products_device_support_tables_list.html.

System Requirements

Table 2 lists the minimum system requirements of Cisco Prime Unified Provisioning Manager 9.0. Unified Provisioning Manager may be deployed in either a physical or a virtualized environment. Please refer to the UPM Installation Guide for more details and the latest information at
http://www.cisco.com/en/US/products/ps7125/prod_installation_guides_list.html.

Table 2. Minimum System Requirements

Server Requirements	Up to 1000 Phones	Up to 10,000 Phones	Up to 30,000 Phones	Up to 60,000 Phones
CPU	Single 3.0 GHz Intel P4 processor or equivalent	2.33 GHz or higher quad core processor or equivalent	2-machine deployment with a 2.33 GHz or higher quad core processor or equivalent for both the database server and the web/application server	2-machine deployment with a 2.33 GHz or higher quad core processor or equivalent for both the database server and the web/application server
Memory	2 GB RAM	4 GB RAM	4 GB RAM on each machine	4 GB RAM on the web/application server and 8 GB RAM on the database server
Disk space	One 30 GB hard disk	One 60 GB hard disk with SAS or SCSI drives	• One 30 GB hard disk on machine for the web/application server, and • One 80 GB SAS hard disk in a RAID 1+0 configuration for the database	• One 30 GB hard disk on machine for the web/application server, and • One 120 GB SAS hard disk in a RAID 1+0 configuration for the database
Network	100 Mbps network interface card (NIC)	100 Mbps NIC	100 Mbps NIC	1 Gbps NIC
System software	• Windows Server 2003 Enterprise Edition (32 bit) with Service Pack 1 or 2, or • Windows Server 2008 Standard or Enterprise Edition (32 bit) with Service Pack 1, or • Windows Server 2008 R2 Standard or Enterprise Edition with Service Pack 1			

Ordering Information

To place an order, visit the Cisco Ordering Homepage. To download a software image, visit the Cisco Software Center or Cisco Marketplace. New orders require the purchase of the Cisco Prime Unified Provisioning Manager image license and one or more scale licenses to cover the number of phone devices (virtual terminals) to be managed. Scale licenses are additive, up to 60,000 for each Cisco Prime Unified Provisioning Manager instance, and licenses may be added to an existing Unified Provisioning Manager server over time.

The Cisco Prime Unified Communications Management Suite Ordering Guide, available to Cisco sales staff and to partners, provides instructions on how to order the Cisco Prime Unified Provisioning Manager application or to

order management product bundles that deliver significant savings over the individual product pricing. Please contact your account representative for details. Table 3 lists part numbers for Cisco Prime Unified Provisioning Manager.

Table 3.   Ordering Information

Product Name	Part Number
Cisco Prime Unified Provisioning Manager 9.0 Image License	R-UPM-8.7-K9=
Cisco Prime Unified Provisioning Manager B 500 Add-On Phone License	L-CUPM-B-500LIC
Cisco Prime Unified Provisioning Manager B 1000 Add-On Phone License	L-CUPM-B-1K-LIC
Cisco Prime Unified Provisioning Manager B 2000 Add-On Phone License	L-CUPM-B-2K-LIC
Cisco Prime Unified Provisioning Manager B 5000 Add-On Phone License	L-CUPM-B-5K-LIC
Cisco Prime Unified Provisioning Manager B 10,000 Add-On Phone License	L-CUPM-B-10KLIC
Cisco Prime Unified Provisioning Manager B 20,000 Add-On Phone License	L-CUPM-B-20KLIC
Cisco Prime Unified Provisioning Manager B 30,000 Add-On Phone License	L-CUPM-B-30KLIC
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 500 Phones	L-CUPM-B-500UPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 1000 Phones	L-CUPM-B-1K-UPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 2000 Phones	L-CUPM-B-2K-UPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 5000 Phones	L-CUPM-B-5K-UPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 10,000 Phones	L-CUPM-B-10KUPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 20,000 Phones	L-CUPM-B-20KUPG
Cisco Prime Unified Provisioning Manager Upgrade 1.x to 2.0 Maximum 30,000 Phones	L-CUPM-B-30KUPG
Cisco Prime Unified Provisioning Manager API Feature License	L-CUPM-B-API-FL

Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services enhances your technology experience to accelerate true business advantage. For more information about Cisco services, visit Cisco Technical Support Services or Cisco Advanced Services.

For More Information

For more information about Cisco Prime Unified Provisioning Manager, please visit http://www.cisco.com/go/cupm, contact your local account representative, or send an email to the Cisco product marketing group at ask-UCMS@cisco.com.