Cisco Prime Collaboration 10.6

Deliver superior end-user quality of experience and lower operating expenses with simplified, unified management across voice and video collaboration networks.

Enterprise networks are undergoing continuous transformation as organizations invest in next-generation collaboration technologies with integrated voice and video deployments. IT departments must be empowered to effectively manage this transformation and the lifecycle of these networks, services, endpoints, and collaboration architectures. They also must meet demands from end users for anywhere, anytime network access with consistent high quality of service. At the same time, these organizations are under increasing pressure to reduce operating expenses and optimize limited resources.

Traditional siloed, nonintegrated management tools have made it difficult for collaboration network operators to quickly and effectively troubleshoot issues, provision new users, or perform changes. The result is collaboration network management operations that are complex, manual, error prone, and inefficient.

Cisco Prime™ Collaboration addresses these challenges by providing simplified, unified management for voice and video networks. The solution helps ensure a superior end-user quality of experience, lowers operating expenses, and allows enterprises to extract the full value from their unified communications and collaboration technology investment.
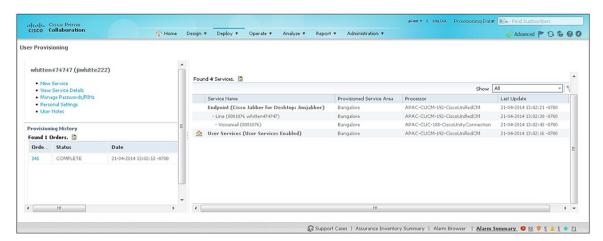
Cisco Prime Collaboration Overview

Cisco Prime Collaboration removes management complexity and provides automated, accelerated provisioning, real-time monitoring, proactive troubleshooting, and long-term trending and analytics in one integrated product. The solution delivers a premier operations experience through an intuitive user interface and optimized operator methodology, including automated workflows that ease implementation and ongoing administration.

Provisioning

Provisioning features include automated processes for Cisco® Unified Communications (UC) and Cisco TelePresence® "day-1" initial deployments and for "day-2" moves, adds, changes, and deletions (MACDs). An intuitive user interface provides a single view of a subscriber and the subscriber's services (see Figure 1) as well as a consolidated view of subscribers across the organization. With these capabilities, Cisco Prime Collaboration significantly accelerates site rollouts and dramatically reduces the time required for ongoing changes, resulting in exceptional productivity gains and lower operating expenses. In addition, by significantly simplifying moves, adds, and changes, the solution facilitates delegation of these tasks - allowing organizations to optimize IT resources and further reduce total cost of ownership.
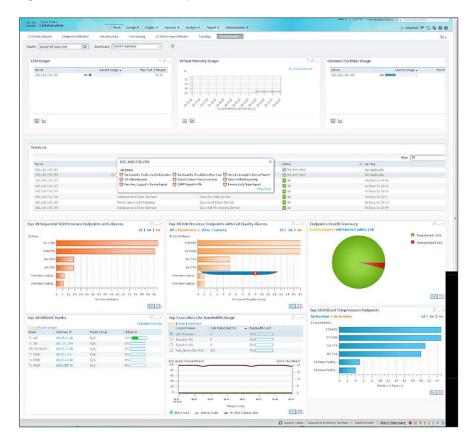
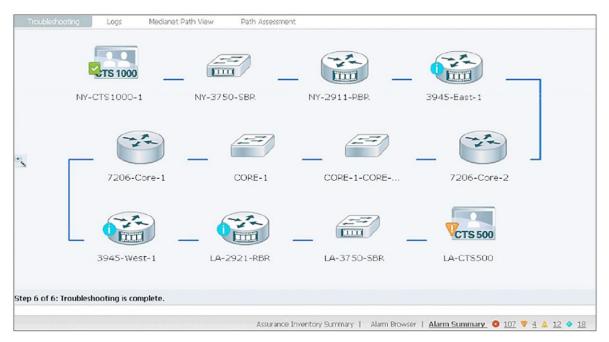**Figure 1.**   User/Subscriber Services View

Assurance

Cisco Prime Collaboration provides efficient, integrated service assurance management through a single, consolidated view of the Cisco voice and video collaboration environment. This includes continuous, real-time monitoring and advanced troubleshooting tools for Cisco Unified Communications and Cisco TelePresence systems including the underlying transport infrastructures, as seen in Figure 2.

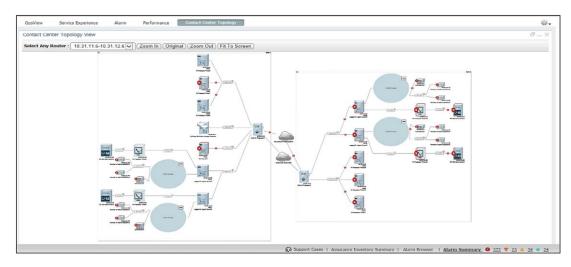**Figure 2.**   User-Defined Summary View

Cisco Prime Collaboration proactively notifies operators of issues and facilitates speedy resolution through proactive fault detection and rapid isolation using purpose-built diagnostic tools. The solution allows operators to view end-to-end session paths over Cisco and third-party devices, and on Cisco routers, memory and CPU statistics that could indicate problems affecting session quality (see Figure 3). As a result, Cisco Prime Collaboration expedites operator resolution of service quality issues before they affect end users - for a superior end-user collaborative experience.

Figure 3. Video End-to-End Session Path Troubleshooting View

As an option to the Assurance module, Cisco Prime Collaboration Contact Center Assurance offers monitoring and diagnostics that help reduce costly Cisco Unified Contact Center Enterprise downtime and promotes agent productivity (see Figure 4).

Figure 4. Contact Center Assurance Topology View

Longer-Term Trending and Analysis

The Analytics module provides historical reporting of key performance indicators (KPIs) and helps enable IT network managers to analyze trends for capacity planning, resource optimization, and quality of service. The solution helps track collaboration technology adoption rates in the network and provides metrics to help analyze how users are actually using the collaboration endpoints daily (see Figure 5). It also provides insights into key collaboration network resource usage trends. With one year's worth of historical data, many options to slice and dice the reports, and easy report customization, Cisco Prime Collaboration provides actionable information to IT managers, planners, and executives both onscreen and through scheduled emails. This information simplifies the long-term planning process, informs ongoing technology investment decisions, and helps optimize the network configuration to improve end-user quality of experience.

Figure 5.   Analytics Technology Adoption View

Features and Benefits

Tables 1 through 4 give a summary of the features and benefits of Cisco Prime Collaboration.

Table 1. Cisco Prime Collaboration Provisioning

Day-1 Voice and Video Provisioning	
Single interface for call control, messaging, presence, and video	Accelerate provisioning tasks
Setup wizard	Accelerate the setup of Cisco Unified Communications applications and Cisco Prime Collaboration Provisioning. The setup wizard collects information about applications, user groups (domains), sites, and users. It will organize the steps, build out a site, and prepare for user provisioning to reduce day-1 setup time. It is intended for greenfield installations but can be used in a brownfield environment when a new cluster is added.
Video infrastructure and endpoint provisioning	Promote greater adoption of Cisco TelePresence through large-scale provisioning of Cisco TelePresence infrastructure and Cisco Unified Communications Manager registered endpoints
Configuration templates	• Create consistent overall network implementation by defining standard configurations that can be used in situations such as rolling out new offices, locations, remote sites, or organizational overlays • Reduce troubleshooting time
Provisioning policy and roles settable at several levels	Provide policy and domain control for administrators handling day-2 provisioning by automating provisioning based on preset policies for services, service areas, and subscriber types. This includes establishment of roles such as MAC administrator for adding MAC addresses during end point creation.
Batch provisioning	Increase operating efficiencies and reduce costs with scheduled scripts and templates for batch provisioning that let an operator rapidly and consistently add or modify a large number of users or a large number of endpoints/device profiles (and the corresponding configuration settings). A single batch can act across an entire unified communications/telepresence network.
Day-2 Voice and Video Provisioning	
Automated processes	• Greatly reduce the time required to move, add, change, or delete voice users and their services • Easily delegate MACD tasks for operational efficiencies and savings • Improve provisioning accuracy
Zero-touch provisioning	Automatically provision services for new users, without prompting, across Cisco Unified Communications Manager, Cisco Unified Communications Manager IM and Presence Service, and Cisco Unity® Connection. This extends the self-provisioning capabilities of Cisco Unified Communications Manager and provides a Lightweight Directory Access Protocol (LDAP) alternative.
Delegation of MACD tasks	• Allow MACD requests to be met without requiring an underlying knowledge of the voice and video applications • Assign domain and service areas to administrators and promote greater operational control by making sure that MACD activities are limited to parameters set for each administrator
Batch operations	• Perform mass user additions or changes using a consistent approach for easier system maintenance - including batch operations across multiple unified communications clusters; for example, user service management can be spread across call control and voicemail in the same batch line • Improve administrator productivity with batch scheduling
Role-based access control (RBAC)	Provide policy and domain control for administrators handling day-2 provisioning by automating provisioning based on preset policies for services, service areas, and user types
End-user policy assignment	Promote greater operational control with policy for services and devices defined by the roles of the user

Operational Tracking for Provisioning	
Order tracking	Provide greater operational control by tracking changes made to infrastructure and user services, including order number, operator placing the order, end user, and date and time
Audit trail	Promote accountability and network security and facilitate troubleshooting by tracking login, logout, IP address, time and date, time logged in, and reason for logout (as well as PIN and password changes)
Northbound Interfaces	
Web services interface	Ease automation of provisioning workflow and query of service inventory
Northbound provisioning API	Integrate easily with custom applications, web service portals, and human resources systems for automated, consistent service provisioning. A Software Development Kit (SDK) is provided with example code.
Localization Support	
Support for multiple languages	Cisco Prime Collaboration Provisioning language support includes English, Simplified Chinese, Korean, Japanese, German, French, Italian and Spanish

Table 2.   Cisco Prime Collaboration Assurance

Fault Monitoring	
At-a-glance and real-time status views of all faults in the collaboration network	Expedite operator resolution of issues
Event correlation that streamlines dependent events into fewer alarms	Reduce alarm clutter
Simplified event customization	Easily customize event thresholds for a device or at the system level from a single screen for improved operating efficiency
Guided alarm diagnosis using contextual actions	Promote operator efficiency by limiting actions to those appropriate to the selected device
View of third-party events created from any syslog, basic MIB 2 device, or Linux/Windows server	Enjoy greater operator flexibility to monitor more device types
Automatic forwarding of alarms as emails (with URL links) to access assurance features directly from the email with device context	Notify operators even when they are not viewing the management system, reducing downtime and helping to ensure that critical alarms are not missed
Automatic forwarding of filtered alarms as traps to other management systems	Integrates the actionable alarms created by the Cisco Prime Collaboration Assurance module into other management systems, providing easy integration with existing operational support systems
At-a-Glance Dashboards	
Device, endpoint, and user 360-degree views such as End-user Impact, Collaboration Infrastructure Summary, and Cisco TelePresence Endpoint Utilization Summary	• Get at-a-glance consolidated information for devices, applications, and endpoints • Visualize all endpoints for a user using a single interface • Quickly determine service experience for all endpoints
Key performance indicator views	• Improve mean time to repair (MTTR) with statistics summary displays that focus the operator on the KPIs for the devices most affected • Promote proactive troubleshooting and efficient operations with information tailored to each operator's preference
Direct launch into troubleshooting best practices and diagnostic screens	• Reduce key clicks • Reduce training requirements
Performance Monitoring	
Monitoring of collaboration resource usage	Enjoy greater visibility into critical performance metrics of each managed element
Graphical views for side-by-side comparison of selected metrics with "zoom-in" capabilities	Reduce troubleshooting time and effort with statistical charts that overlay multiple KPIs for a device with up to one week's worth of data, allowing the operator to zoom in to any part of the display time frame
Export of tabular content in comma-separated value (CSV) format	Promote further data analysis and collaboration among teams

Quality of Service Monitoring	
Mean Opinion Scores (MOSs) that measure and identify jitter, packet loss, and delay and that notify operators of impairments in the network	Improve quality of service by isolating quality issues in each device pool and identify site-level problems
Deployment of the Cisco Prime Network Analysis Module (NAM) to improve the MOS granularity by reporting every 60 seconds	Improve quality of service and sample in multiple locations to reduce the time needed to isolate problems
Video quality measurements during calls and sessions with reporting from Cisco Unified Communications Manager call detail records (CDRs)	Help ensure that each video session is the highest quality
Diagnostics and Testing	
Jitter, packet loss, differentiated services code point (DSCP), and percent utilization information for Cisco IP service-level agreement (IP SLA) and Medianet-equipped Cisco devices	• Quickly and efficiently isolate network impairments in real time with testing and diagnostic features built into Cisco network devices • Easily identify configuration issues that can reduce quality for voice and video endpoints
Scheduled pretesting of key components and circuits using end-to-end site connectivity tests, unified communications application feature tests, and WAN link performance tests	Assure service readiness and the highest quality end-user experience
Automatic display of technology-specific diagnostic views based on the device selected	Reduce time to isolate problems and training expense with guided troubleshooting workflows and smart links to the recommended test or measurement display
KPI charts that display, in a single view, the most important information for the device or device grouping	Expedite troubleshooting by reducing the number of key clicks and open windows needed to collect enough information to identify and resolve a problem
Dynamic statistical overlay charts that allow multiple KPI charts to be overlaid, providing a single time reference	Improve diagnostic efficiency with user-selected statistical overlays that align related measurements in time to make it easier to identify cause and effect
Call path trace and analysis	Easily identify network devices causing call failures and reduce MTTR using a graphical depiction of detailed call log information
Custom trunk group utilization	Create user-defined groups of trunks and monitor the aggregate percent utilization - useful for Cisco Unified Communications Manager Express deployments, SLA verification, and load balancing
Role-based Access Control	
Multilevel RBAC	Control user activity based on role, avoiding unauthorized operations
Multidevice RBAC	Provide granular control for administrators handling assurance functions for specific set of devices or endpoints
Multicustomer Support	
Managing multiple Cisco UC deployments	Reduce total cost of ownership by managing multiple Cisco UC deployments (deployments for multiple customers or internal organizations with dedicated UC applications) with a single instance of Cisco Prime Collaboration Assurance
Static Network Address Translation (NAT) and overlapping IP addresses	Reduce server and operational overhead expenses previously associated with multiple Cisco Prime Collaboration Assurance instances, allowing concurrent use of the same IP addresses across Cisco UC deployments
Single customer and multicustomer filtering, views, and reports	Lower total cost of ownership with the ability to monitor multiple customers, using both aggregate views (with summary fault and deployment information) and single customer dashboards and reports. Views device alarms and events by customer.
Multilevel RBAC	Assign partner admins and resellers one or more deployments to manage using a single instance of Cisco Prime Collaboration Assurance
Northbound Interface	
Northbound alarms in Simple Network Management Protocol (SNMP) trap format based on Cisco Prime Collaboration MIB	Integrate easily with existing operational support systems, providing the same actionable collaboration alarms and events to another network management system
Short-term Reports (up to 7 Days) for Day-to-Day Operations and Troubleshooting	
Complete collaboration inventory of infrastructure and endpoints with serial numbers, firmware versions, locations, and much more	Reduce time spent collecting inventory information by providing flexible reporting from the Cisco Prime Collaboration database
Tracking of patterns with quality history information including call quality measurements and event reports	Improve uptime by reviewing key metrics and event history across the collaboration network in a concise report format

Tracing of Cisco TelePresence usage patterns and resource loading video session utilization	Identify over- or underused endpoints for better capacity planning and to drive efficient usage practices
Provisioning details on the voice users, services, and resource configurations	Quickly generate a services summary to efficiently identify service and asset deployment across the voice part of the collaboration network
Activity details on phone moves and changes	Help manage a large phone deployment by tracking all phone movement in a networkwide report, reducing troubleshooting time and improving overall inventory management

Table 3. Cisco Prime Collaboration Contact Center Assurance

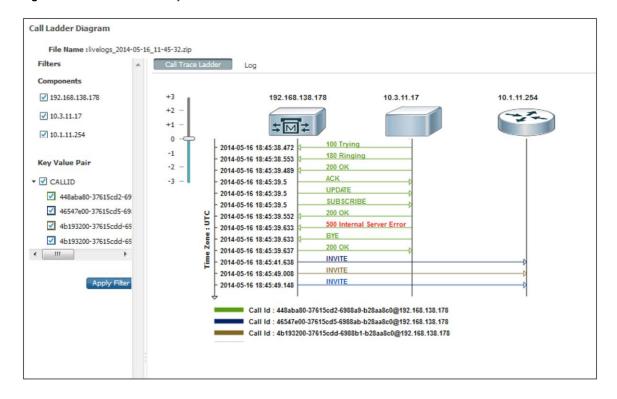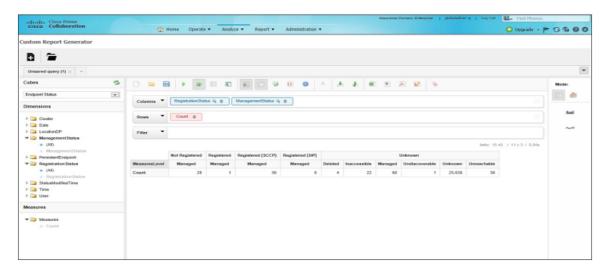| Cisco Prime Collaboration Contact Center Assurance	
Topology	Simplify operations using a real-time visual representation of Cisco Unified Contact Center infrastructure availability, including faults at the device and site level. Operators can easily act on faults from the device 360-degree view.
Event correlation/reduction tailored to the Cisco Unified Contact Center Enterprise deployment	Isolate the root cause of problems using built-in correlation rules specific to Cisco Unified Contact Center Enterprise deployments to correlate event data and generate alarms. Reduce MTTR.
Performance dashboard	Proactively detect and address performance issues with a view of Cisco Unified Contact Center Enterprise-specific critical KPIs, avoiding costly service interruptions.
Call trace and analysis	Easily identify network and Cisco Unified Contact Center Enterprise devices causing call failures and reduce MTTR using a graphic depiction of detailed call log information (see Figure 6).

Figure 6. Call Trace and analysis

Table 4.   Cisco Prime Collaboration Analytics

Cisco Prime Collaboration Analytics - Long-Term Reporting and Analysis	
Technology adoption	Visualize the speed of deployment; track service usage distribution by endpoint model and type; determine voice and video service consumption trends
Asset usage	Analyze trends for least-used endpoints
Traffic analysis	View statistics on dialed numbers, off net calls, call traffic per location, and traffic type (local, internal, external, and more)
Service experience	Help ensure high end-user satisfaction by monitoring call failure trends, service quality distribution by location, and most affected endpoints
Capacity analysis	Track the Average Bouncing Busy Hour to determine traffic load and detect trunk capacity; analyze Call Admission Control (CAC) bandwidth, conferencing multipoint control units (MCUs), and trunk utilization. Customize groupings (trunk groups, route groups, CAC location groups) for focused utilization trend analysis.
UC systems performance	Analyze trends for utilization of key system resources (CPU and memory) for Cisco Unified Communications Manager, Cisco Unity Connection, and Cisco Unified Presence
Custom Report Generator	Create a variety of custom reports by selecting attributes dynamically from a list of available metrics (see Figure 7)

Figure 7.   Custom Report Generator

Cisco Prime Collaboration Standard and Advanced

Cisco Prime Collaboration Standard is included with all Cisco Unified Workspace Licensing and Cisco User Connect Licensing for Cisco Unified Communications (beginning with version 10.0), taking the complexity out of provisioning and monitoring your voice and video deployments. For deployments requiring more advanced management capabilities, Cisco Prime Collaboration Advanced offers additional automation, deeper diagnostics, and long-term reporting.

Cisco Prime Collaboration Advanced Licensing and Ordering Information

Cisco Prime Collaboration is a licensed software product that is secured to the MAC of the host server. Licensing is ordered based on the collaboration management options required (Assurance, Provisioning, or Analytics) and the endpoint type (Phone or Cisco TelePresence) and the quantity of those endpoints.

When ordering Cisco Prime Collaboration, the Assurance, Analytics, and Provisioning modules are options, available separately or in bundles. Cisco Prime Collaboration Analytics requires Cisco Prime Collaboration Assurance to be installed first since it provides all the raw data to the Analytics module.

Upgrade Information

Cisco SoftWare Support Service maintenance plan is required and provides Cisco Technical Assistance Center (TAC) support and access to major and minor updates, upgrades and patches. Minor updates and patches are downloaded from the Cisco.com software download site and major upgrades are ordered from the Product Upgrade Tool (PUT).

For system requirements, please refer to the Cisco Prime Collaboration Quick Start Guide.

To place an order, visit the Cisco Ordering Home Page. To download trial software, visit the Cisco Promotional Software Store.

Service and Support

Using the Cisco lifecycle services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

For More Information

For more information about Cisco Prime Collaboration, visit http://www.cisco.com/go/primecollaboration or contact your Cisco account team or channel partner.