Cisco Prime Collaboration 12

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 a 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 management tools have made it difficult for collaboration network operators to quickly and effectively troubleshoot problems, provision new users, and make 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.

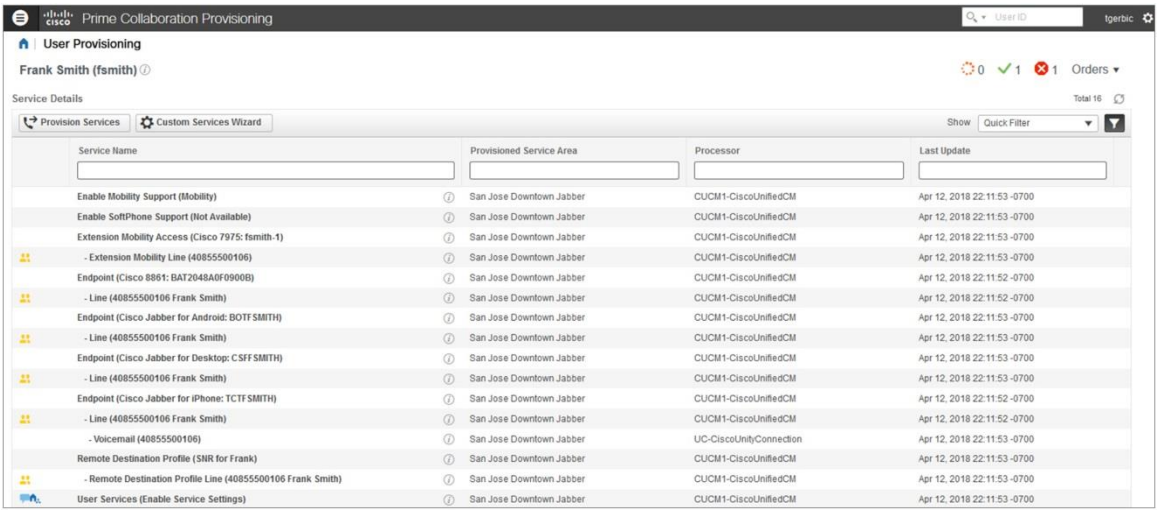
Cisco Prime Collaboration overview

Cisco Prime Collaboration removes management complexity and provides automated, accelerated provisioning, real-time monitoring, proactive troubleshooting, and long-term trending and analytics. 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. Cisco Prime Collaboration is made up of three functional modules; Provisioning, Assurance and Analytics.

Provisioning

Features of the Provisioning module include automated processes for Cisco® Unified Communications and Cisco TelePresence® “day-1” initial deployments and for “day-2” Moves, Adds, Changes, and Deletions (MACDs). In addition, an automatic service provisioning function allows the Provisioning server itself to add a new user and, based on company policies and location, automatically provision the new user’s common services. An intuitive user interface provides a single view of an end user and the end user’s services (Figure 1) as well as a consolidated view of end users 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. By significantly simplifying MACDs, the solution also facilitates delegation of these tasks, allowing organizations to optimize IT resources and further reduce total cost of ownership.

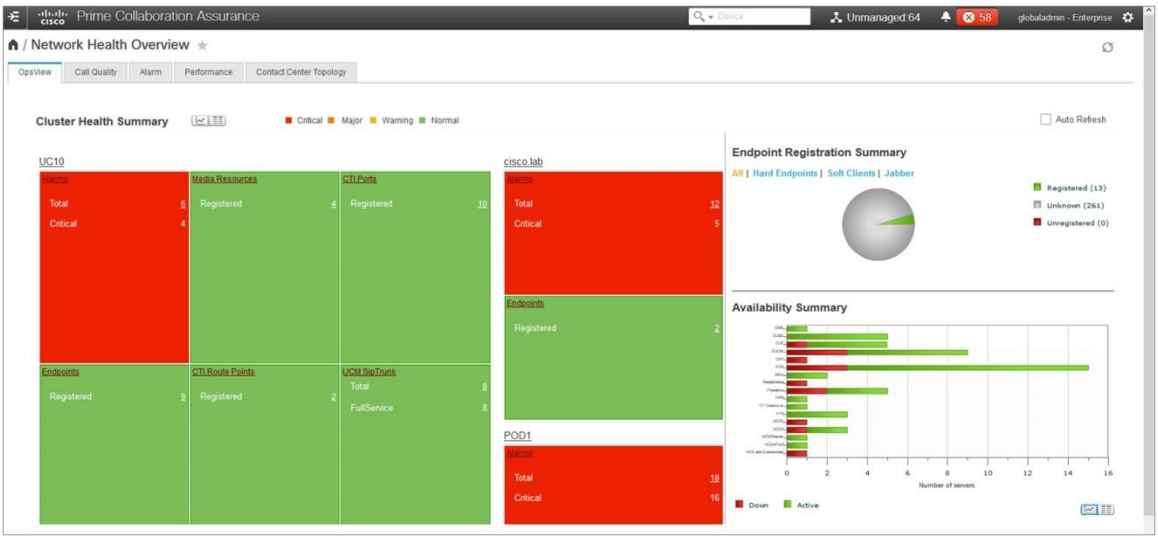
Figure 1. User services view



Assurance

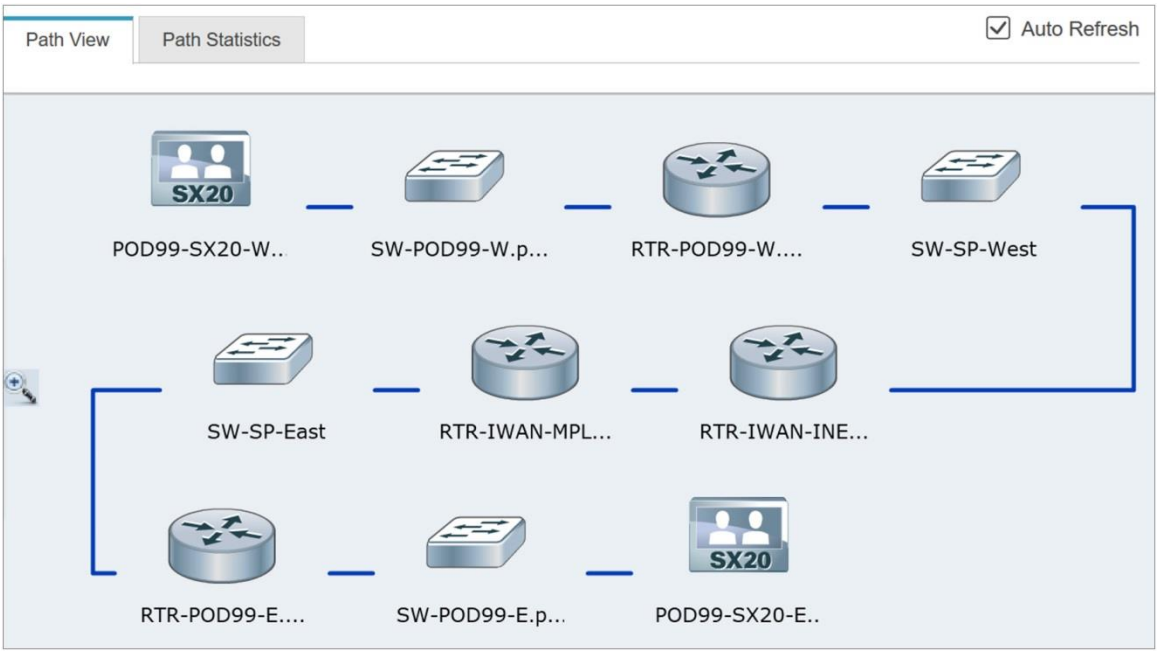
Cisco Prime Collaboration provides efficient, integrated service-assurance management through a single, consolidated view of the Cisco voice and video collaboration environment. Management capabilities include continuous, real-time monitoring and advanced troubleshooting tools for Cisco Unified Communications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

Figure 2. System view



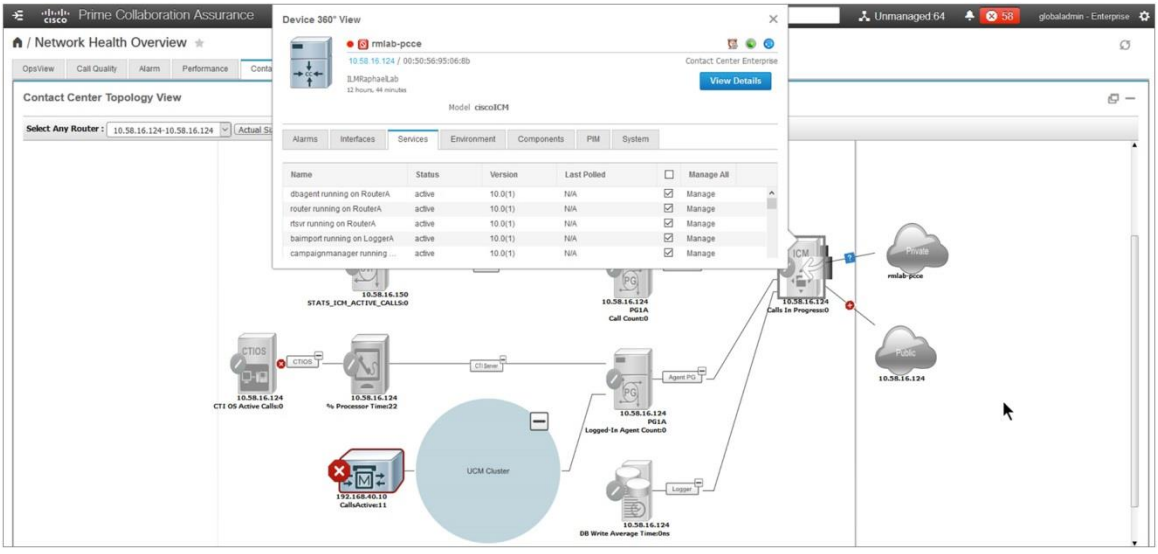
Cisco Prime Collaboration proactively notifies operators of problems and facilitates speedy resolution through proactive fault detection and rapid isolation, using purpose-built diagnostic tools. The solution allows operators to view end-to-end session paths over Cisco and third-party devices. On Cisco routers, it displays memory and CPU statistics that could indicate problems affecting session quality (Figure 3). As a result, Cisco Prime Collaboration expedites operator resolution of service-quality concerns 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 promote agent productivity (Figure 4).

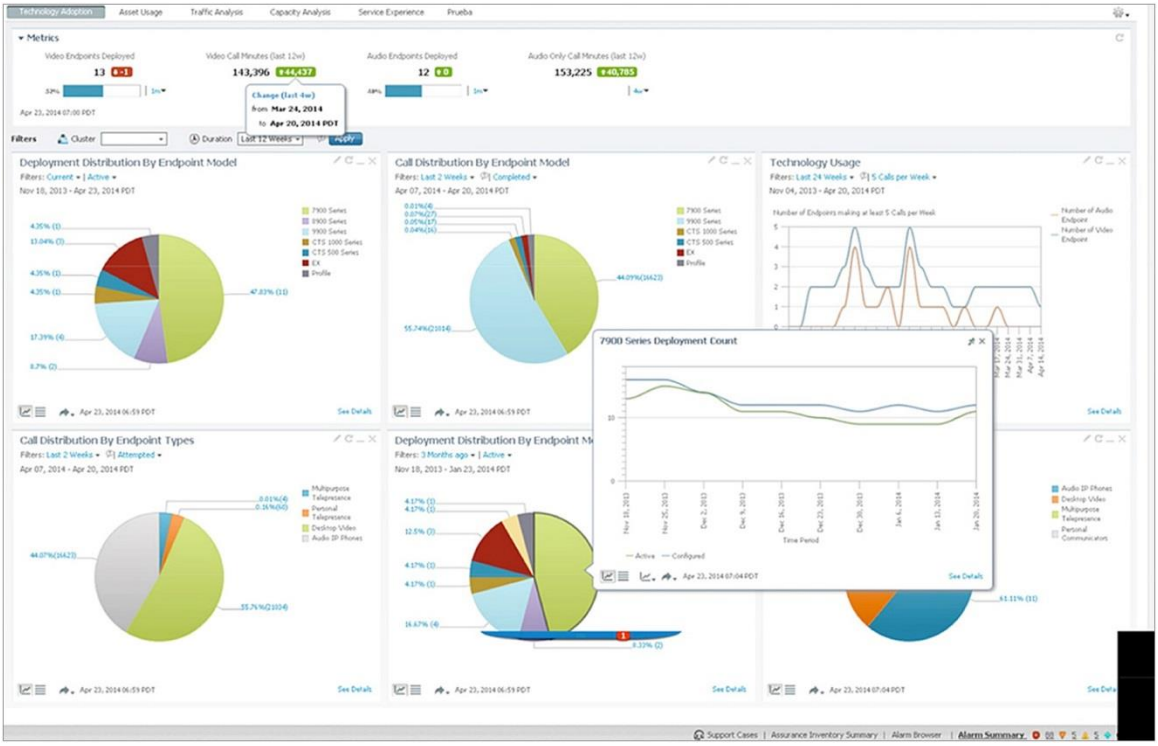
Figure 4. Contact Center Assurance topology view



Analytics

The Analytics module provides historical reporting of Key Performance Indicators (KPIs) and enables IT network managers to analyze trends for capacity planning, resource optimization, and quality of service. The solution helps track adoption rates for collaboration technology in the network and provides metrics to help analyze how users are actually using the collaboration endpoints daily (Figure 5). It also provides insights into key usage trends for collaboration network resources. With one year's worth of historical data, many options to thoroughly examine the reports, and easy report customization, Cisco Prime Collaboration provides actionable information to IT managers, planners, and executives, both onscreen and through scheduled email messages. This information simplifies the long-term planning process, informs you about 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 summarize the features and benefits of Cisco Prime Collaboration.

Table 1. Features and benefits of the Cisco Prime Collaboration Provisioning module

Feature	Benefits
Day-1 voice and video provisioning	
Single interface for call control, messaging, presence, and video	Accelerates provisioning tasks.
Setup wizard	Accelerates the setup of Cisco Unified Communications applications and Cisco Prime Collaboration Provisioning. It collects information about applications, user groups (domains), sites, and users. It organizes the steps, builds out a site, and prepares for user provisioning to reduce day-1 setup time. The wizard is for small business greenfield installations.
Video infrastructure and endpoint provisioning	Promotes greater adoption of the Cisco TelePresence application through large-scale provisioning of Cisco TelePresence infrastructure and Cisco Unified Communications Manager registered endpoints.
Configuration templates	• Enables consistent overall network implementation by defining standard configurations that you can use in situations such as rolling out new offices, locations, remote sites, or organizational overlays. • Universal and family service templates reduce the number of templates to manage and choose from at ordering time. • Powerful keyword functionality allows templates to create custom configurations at provisioning time. • The service templates provide consistent settings and can reduce troubleshooting time.
Provisioning policy and roles settable at several levels	Enables the creation of user roles that define what endpoints and services an administrator is allowed to provision for an end user, effectively enforcing company policy. These roles can also define the endpoint and services automatically assigned to an end user during automatic service provisioning.
Batch provisioning	• Increases operating efficiencies and reduces costs with scheduled 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 or device profiles (and the corresponding configuration settings). A single batch can act across an entire unified communications or telepresence network. • Batches can contain keywords that allow creation of template batches and used repeatedly. Keywords can be user defined or can use built-in Lightweight Directory Access Protocol (LDAP) imported keywords.
Role-Based Access Control (RBAC)	• Enables you to assign user groups to different administrators for delegated user management. • Promotes greater operational control by making sure that MACD activities are limited to parameters set for each administrator for a given user group. • Enables the creation of custom roles assignable to administrators. • Includes establishment of administration roles such as an end-user manager, MACD administrator, dial plan administrator, or system administrator.
Day-2 voice and video provisioning	
Automated processes	• Wizard-based processes greatly reduce the time required to move, add, change, or delete voice users and their services. • Endpoints of different complexities use the same provisioning process, so adding a complex telepresence endpoint is as easy as adding a simple IP phone. • Easily delegate MACD tasks for operating efficiencies and savings. • Improve provisioning accuracy. • Allow nontechnical personnel to handle MACD requests.
Automatic service provisioning	Enables automatic provisioning of services for new users, without prompting, across Cisco Unified Communications Manager, Cisco Unified Communications Manager IM and Presence Service, and Cisco Unity® Connection. This capability extends the self-provisioning capabilities of Cisco Unified Communications Manager and provides an LDAP alternative.

Feature	Benefits
Batch operations	• Permits mass user additions or changes using a consistent approach for easier system maintenance, including batch operations across multiple unified communications clusters; for example, you can spread user service management across call control and voicemail in the same batch line. • Eases repetitive site creation by using keywords, and by provisioning unified communications apps and site routers (Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unified Border Element, or Survivable Remote Site Telephony settings) within the same batch job. • Batches can contain keywords that allow creation of template batches and used repeatedly. Keywords can be user defined or can use built-in LDAP imported keywords. • User provisioning can be done from batch templates when provisioning requires many custom tasks to be performed along with normal service provisioning. • A scheduler is available for batch jobs.
End-user policy assignment	• You can assign employee roles that allow filtering of service settings at ordering time. • End-user policy assignment provides enforcement of company policies for endpoint types and services allowed for different employee types (for example, contractors vs. directors). • Settings for the end user are also used to define the automatic assignment of services during quick provisioning and automatic service provisioning.
Operational tracking for Provisioning	
Order tracking	• Provides greater operational control by tracking changes made to unified communications infrastructure and user services, including order number, operator placing the order, end user, and date and time.
Audit trail	• Promotes accountability, provides network security, and facilitates troubleshooting. • Activity tracking for administrator, system, and end-user changes such as login/logout, password changes, Provisioning server settings, and adding, modifying, or deleting end users. • Filtering and exporting for security analysis or audit reporting.
Northbound interfaces	
Web services interface	Eases automation of the provisioning workflow and queries of service inventory.
Northbound provisioning API	Allows for easy integration with custom applications, web service portals, and human resources systems for automated, consistent service provisioning. A Software Development Kit (SDK) providing example code.
Localization support	
Support for multiple languages	Language support includes English, Simplified Chinese, Korean, Japanese, German, French, Italian, and Spanish.

Table 2. Features and benefits of the Cisco Prime Collaboration Assurance module

Feature	Benefits
Fault monitoring	
At-a-glance and real-time status views of all faults in the collaboration network	Expedites operator resolution of problems or concerns.
Event correlation that streamlines dependent events into fewer alarms	Reduces alarm clutter.
Simplified event customization	Enables easy customization of event thresholds for a device or at the system level from a single screen for improved operating efficiency.
Guided alarm diagnosis using contextual actions	Promotes 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 or Windows server	Provides greater operator flexibility to monitor more device types.
Automatic forwarding of alarms as email messages (with URL links) to access assurance features directly from the email messages with device context	Notifies 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 Assurance module into other management systems, providing easy integration with existing operating support systems.

Feature	Benefits
At-a-glance dashboards	
Device, endpoint, and user 360-degree views such as end-user impact, collaboration infrastructure summary, and Cisco TelePresence endpoint usage summary	• Provides at-a-glance consolidated information for devices, applications, and endpoints. • Displays all endpoints for a user in a single interface. • Quickly determine service experience for all endpoints.
KPI views	• Reduces Mean Time To Repair (MTTR) with statistics summary displays that focus the operator on the KPIs for the devices most affected. • Promotes proactive troubleshooting and efficient operations with information tailored to each operator's preference.
Direct launch into troubleshooting best practices and diagnostic screens	• Reduces the number of key clicks. • Reduces training requirements.
Unified communications operations dashboard	• Provides a general display of alarm count, Cisco Unified Communications Manager server statistics, calls in progress, and unregistered devices from up to 20 clusters spread across up to 10 separate Assurance servers. • Offers a single view of overall clusters when using multiple Assurance servers.
Performance monitoring	
Monitoring of collaboration resource usage	Provides greater visibility into critical performance metrics of each managed element.
Graphical views for side-by-side comparison of selected metrics with "zoom-in" capabilities	Reduces 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	Promotes further data analysis and collaboration among teams.
Quality-of-Service (QoS) monitoring	
Severely Concealed Seconds Ratio (SCSR)	Identifies potential quality problems; many endpoints now use this feature as a means to notify operators of impairments in the network. It improves quality of service by isolating these quality problems in each device pool and identifies site-level problems. Cisco endpoints are migrating away from Mean Opinion Scores (MOS) to rely on SCSR to notify operators about quality events. MOS scores will be displayed in Call-Detail-Record (CDR) reports for the endpoints that provide them.
Deployment of the Cisco Prime Network Analysis Module (NAM) to improve the SCSR granularity by reporting every 60 seconds	Improves quality of service and samples 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 CDRs	Helps ensure that each video session is the highest quality possible.
Diagnostics and testing	
Jitter, packet loss, Differentiated Services Code Point (DSCP), and percentage usage information for Cisco IP Service-Level Agreement (IP SLA) and APIC-EM-managed Cisco devices	• Quickly and efficiently isolates network impairments in real time with testing and diagnostic features built into Cisco network devices. • Enables easy identification of configuration problems that can reduce quality for voice and video endpoints. • Interoperates with Software-Defined Networking (SDN) Application Policy Infrastructure Controller Enterprise Module (APIC-EM). APIC-EM provides hop-by-hop quality statistics without an installed agent on the network device.
Scheduled pretesting of key components and circuits using end-to-end site connectivity tests, unified communications application feature tests, and WAN link performance tests	Helps assure service readiness and the highest-quality end-user experience.
Automatic display of technology-specific diagnostic views based on the device selected	Reduces 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	Expedites troubleshooting by reducing the number of key clicks and open windows needed to collect enough information to identify and resolve a problem.

Feature	Benefits
Dynamic statistical overlay charts that allow multiple KPI charts to be overlaid, providing a single time reference	Improves 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	Enables easy identification of network devices causing call failures and reduces MTTR using a graphical depiction of detailed call log information.
Custom trunk group usage	Enables the creation of user-defined groups of trunks and monitoring of the aggregate percentage usage. This feature is useful for Cisco Unified Communications Manager Express deployments, Service-Level Agreement (SLA) verification, and load balancing.
Role-based access control	
Multilevel RBAC	Controls user activity based on role, avoiding unauthorized operations.
Multidevice RBAC	Provides granular control for administrators handling assurance functions for a specific set of devices or endpoints.
Multicustomer support	
Managing multiple Cisco Unified Communications deployments	Reduces total cost of ownership by managing multiple Cisco Unified Communications deployments (deployments for multiple customers or internal organizations with dedicated Cisco Unified Communications applications) with a single instance of Cisco Prime Collaboration Assurance.
Static Network Address Translation (NAT) and overlapping IP addresses	Reduces server and operating overhead expenses previously associated with multiple Assurance instances, allowing concurrent use of the same IP addresses across Cisco Unified Communications deployments.
Single-customer and multicustomer filtering, views, and reports	Lowers 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. This feature views device alarms and events by customer.
Multilevel RBAC	Enables you to assign partner administrators and resellers one or more deployments to manage using a single instance of Assurance.
Northbound interface	
Northbound alarms in Simple Network Management Protocol (SNMP) trap format based on Cisco Prime Collaboration MIB	Integrates easily with existing operating 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	Reduces 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	Improves uptime by reviewing key metrics and event history across the collaboration network in a concise report format.
Tracking of Cisco TelePresence usage patterns and resource-loading video session usage	Enables you to identify overused or underused endpoints for better capacity planning. Promotes efficient usage practices.
Provisioning details about voice users, services, and resource configurations	Quickly generates a services summary to identify service and asset deployment across the voice part of the collaboration network.
Activity details about phone moves and changes	Helps manage a large phone deployment by tracking all phone movement in a network wide report, reducing troubleshooting time and improving overall inventory management.
Redundancy: Included	
Local VMware High Availability redundancy	Eliminates concern about OS or VMware faults with local high availability powered by VMware High Availability. With a shared drive configuration, VMware activates a snapshot of the live process on a second server to help ensure operating continuity if a server or virtual machine fails.
Geographic remote redundancy	Reduces the administration of a parallel standby server. Geographic remote redundancy helps ensure a standby current database that is brought online by activating the virtual machine and the Cisco Prime Collaboration Assurance application. Although it is a manual activation, the system is a current snapshot, ready to take over management of the network.

Table 3. Features and benefits of the Cisco Prime Collaboration Contact Center Assurance module

Feature	Benefits
Event correlation and reduction tailored to the Cisco Unified Contact Center Enterprise deployment	Isolates 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. Reduces MTTR.
Performance dashboard	Enables you to proactively detect and address performance problems with a view of critical KPIs specific to Cisco Unified Contact Center Enterprise, avoiding costly service interruptions.
SIP call trace and analysis	Enables easy identification of network and Cisco Unified Contact Center Enterprise devices causing call failures and reduces MTTR using a graphic depiction of detailed call log information (Figure 6).

Figure 6. Call trace and analysis in Cisco Prime Collaboration Contact Center Assurance

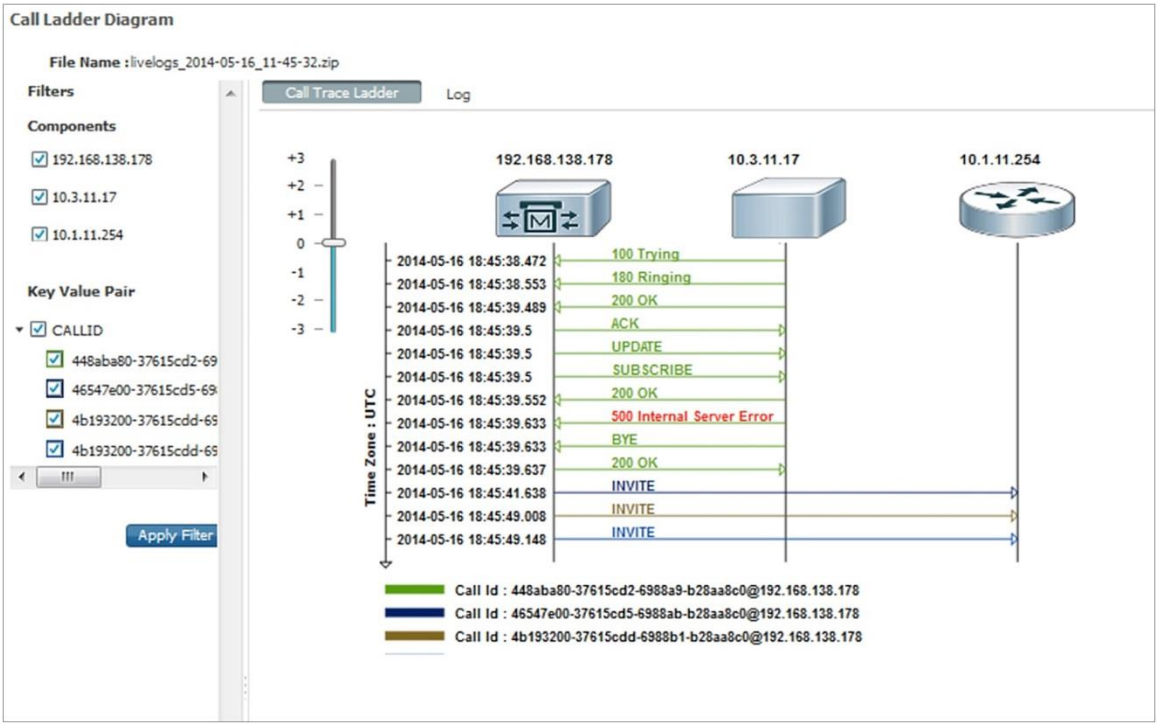
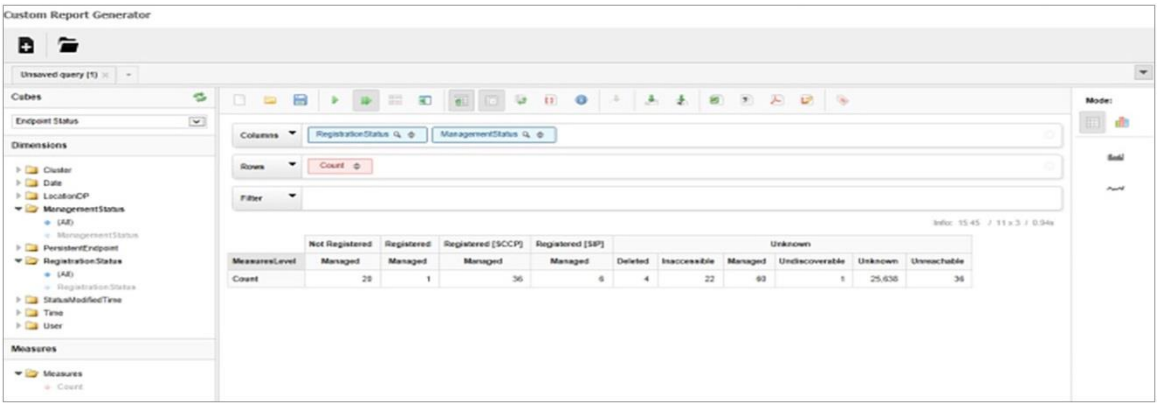


Table 4. Features and benefits of the Cisco Prime Collaboration Analytics module: Long-term reporting and analysis

Feature	Benefits
Technology adoption	Enables you to visualize the speed of deployment; track service usage distribution by endpoint model and type; and determine voice and video service consumption trends.
Asset usage	Provides the ability to analyze trends for least-used endpoints, no-show telepresence endpoints, telepresence room use, and video use of conference devices.
Traffic analysis	Displays statistics on dialed numbers, off-net calls, call traffic per location, and traffic type (local, internal, external, and more).
Service experience	Helps ensure high end-user satisfaction by monitoring call-failure trends, service-quality distribution by location, and most-affected endpoints.
Capacity analysis	Enables you to 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), gateway Digital Signal Processor (DSP), and trunk usage; and customize groupings (trunk groups, route groups, and CAC location groups) for focused usage trend analysis.

Feature	Benefits
Unified communications systems performance	Provides analysis of trends for use of key system resources (CPU and memory) for Cisco Unified Communications Manager, Cisco Unity Connection, and Cisco Unified Presence applications.
Custom report generator	Enables creation of a variety of custom reports by selecting attributes dynamically from a list of available metrics (Figure 7).
Video conferences	Displays statistics about video conference types and the top N video conference locations.

Figure 7. Custom report generator



Cisco Prime Collaboration licensing and ordering information

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

When ordering Cisco Prime Collaboration, you have the option of purchasing the Assurance, Analytics, and Provisioning modules, separately or in bundles. Cisco Prime Collaboration Analytics and Contact Center Assurance require that you install Cisco Prime Collaboration Assurance first because it provides all the raw data to the Analytics module and provides the foundational support for Contact Center Assurance.

Upgrade information

A 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. Download minor updates and patches from the Cisco.com software download site, and order major upgrades 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.

Service and support

Using the Cisco lifecycle services approach, Cisco and our partners provide a broad portfolio of end-to-end services and support that can help increase the business value of your network and your 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.

Cisco Capital

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Cisco Capital® can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. Learn more.

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