Cisco Prime Collaboration 11.X

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 management tools have made it difficult for collaboration network operators to quickly and effectively troubleshoot problems, 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. 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 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 (refer to 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. Provisioning also provides an automatic service provisioning function that allows you to add a new user and, based on company policies and location, automatically provision the new user's common services.

Figure 1.   User Services View
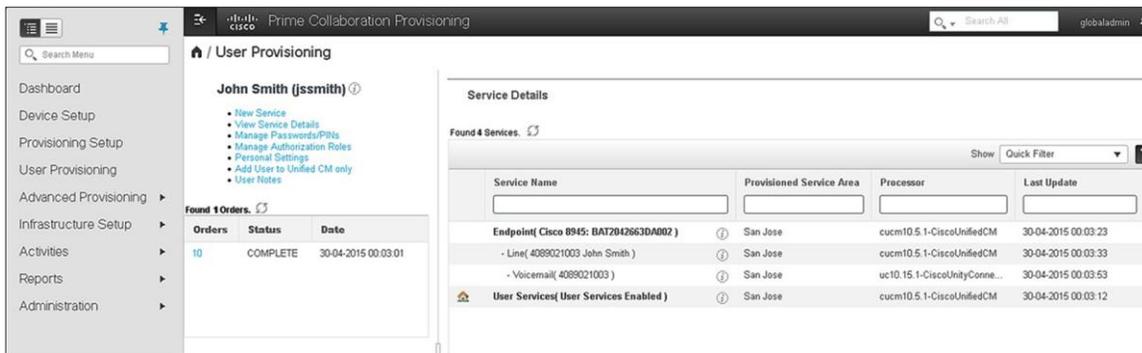

Assurance

Cisco Prime Collaboration provides efficient, integrated service-assurance management through a single, consolidated view of the Cisco voice and video collaboration environment. This management 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.   System View
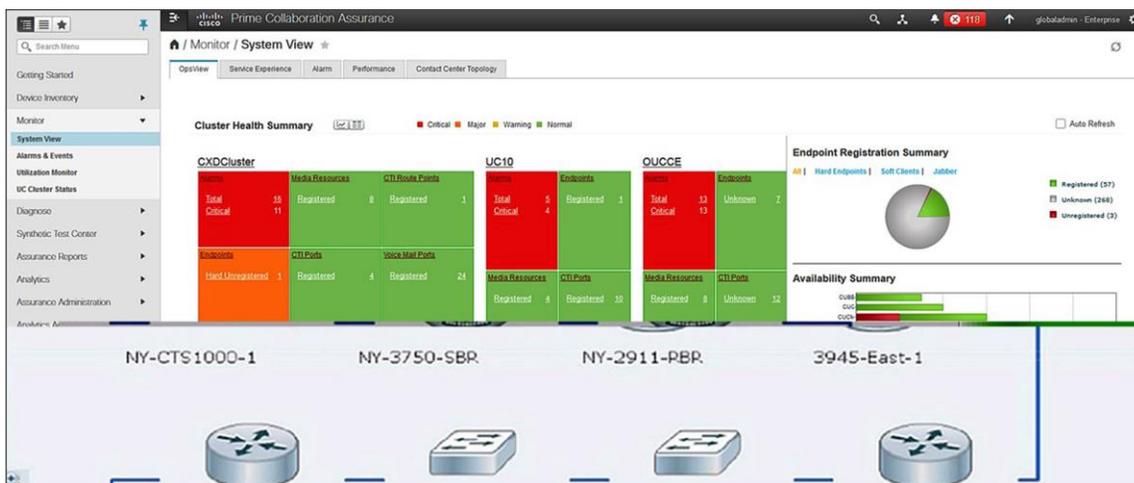
Cisco Prime Collaboration proactively notifies operators of problems and facilitates speedy resolution through proactive fault detection and rapid isolation, using purpose-built diagnostic tools. The solution allows operators to view end-to-end session paths over Cisco and third-party devices. On Cisco routers, it displays memory and CPU statistics that could indicate problems affecting session quality (refer to 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
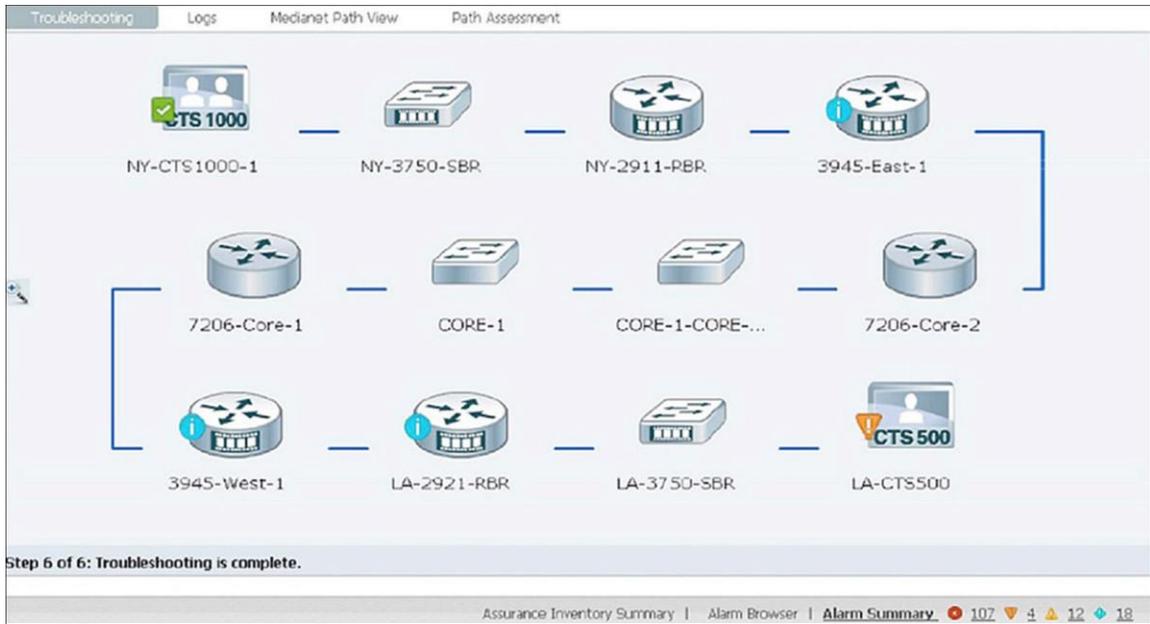
As an option to the Assurance module, Cisco Prime Collaboration Contact Center Assurance offers monitoring and diagnostics that help reduce costly Cisco Unified Contact Center Enterprise downtime and promote agent productivity (Figure 4).

Figure 4.   Contact Center Assurance Topology View
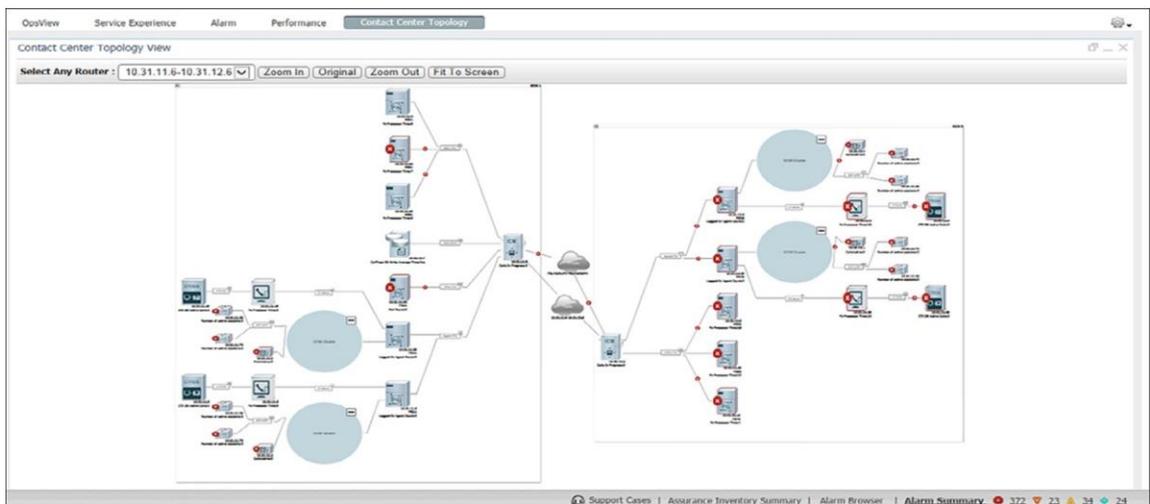
Longer-Term Trending and Analysis

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 collaboration technology adoption rates 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 collaboration network resource usage trends. 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
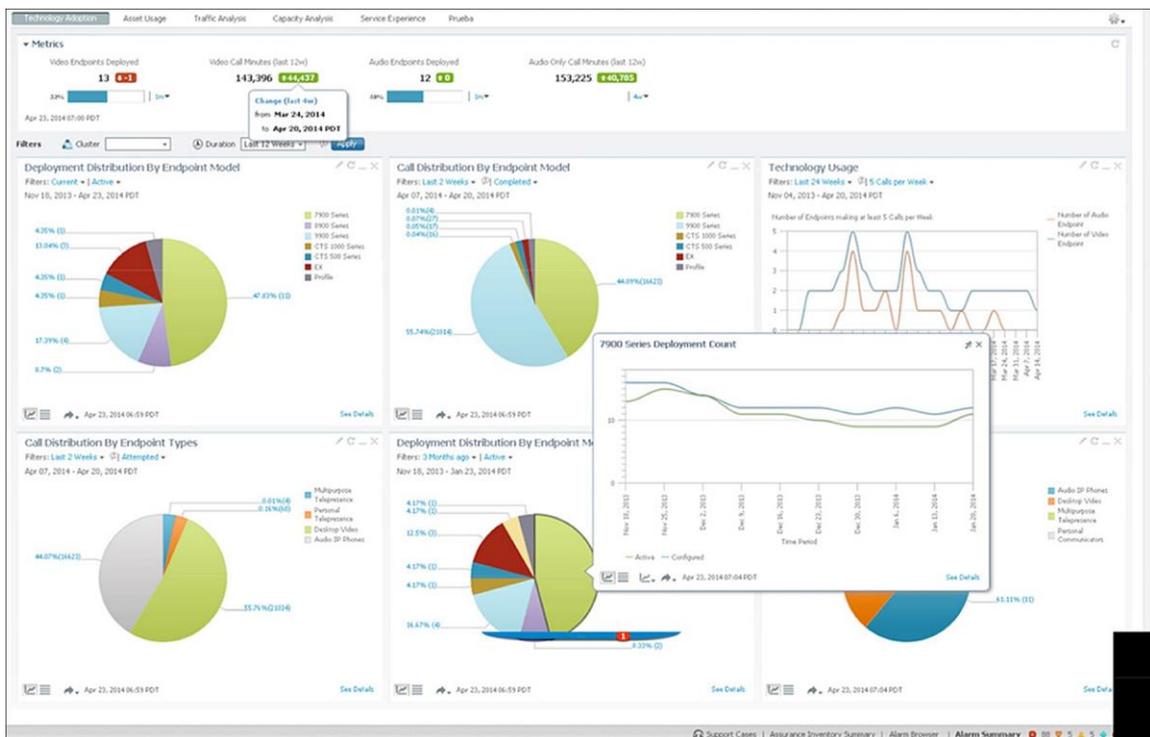
Features and Benefits

Tables 1 through 4 summarize the features and benefits of Cisco Prime Collaboration.

Table 1.   Cisco Prime Collaboration Provisioning

Day-1 Voice and Video Provisioning	
Single interface for call control, messaging, presence, and video	This feature accelerates provisioning tasks.
Setup wizard	This 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 intended for small business greenfield installations but you can use it in a brownfield environment or when you add a new cluster.
Video infrastructure and endpoint provisioning	Promote greater adoption of the Cisco TelePresence application 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 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 order time. • The service templates provide consistent settings and reduce troubleshooting time.
Provisioning policy and roles settable at several levels	Provide policy and delegated management of user groups for administrators handling day-2 provisioning by automating provisioning based on preset policies for services, service areas, and subscriber types. Provisioning includes establishment of roles such as MAC address administrator for adding MAC addresses during endpoint creation.
Batch provisioning	• Increase operating efficiencies and reduce 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 template batches to be created and used repeatedly. Keywords can be user defined or can use built-in Lightweight Directory Access Protocol (LDAP) imported keywords.
Day-2 Voice and Video Provisioning	
Automated processes	• These wizard based processes greatly reduce the time required to move, add, change, or delete voice users and their services. • You can easily delegate Moves, Adds, Changes and Deletes (MACD) tasks for operating efficiencies and savings. • The processes help improve provisioning accuracy. • Endpoints of different complexities use the same provisioning process, so adding a complex telepresence endpoint is as easy as adding a simple IP phone. • You can allow MACD requests to be met without requiring an underlying knowledge of the voice and video applications.
Automatic service 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 provisioning extends the self-provisioning capabilities of Cisco Unified Communications Manager and provides a Lightweight Directory Access Protocol (LDAP) alternative.
Role-based access control (RBAC)	• You can assign user groups to different administrators for delegated user management. • RBAC promotes greater operational control by making sure that MACD activities are limited to parameters set for each administrator for a given user group. • Custom roles can be created and assigned to admins.
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, you can spread user service management across call control and voicemail in the same batch line. • Batches can contain keywords which allow template batches to be created and used repeatedly. Keywords can be user defined or can leverage built in LDAP imported keywords. • You can improve administrator productivity with batch scheduling on an improved user interface.

End-user policy assignment	● You can assign employee roles that allow filtering of service settings at order time.
	● End-user policy assignment provides enforcement of company policies for endpoint types and services allowed for different employees types (for example, contractors vs. directors).
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 Personal Identification Number [PIN] and password changes).
	Audit trail can be filtered and exported for security analysis or audit reporting.
Northbound Interfaces	
Web services interface	This interface eases automation of provisioning workflow and query of service inventory.
Northbound provisioning application programming interface (API)	This interface allows for easy integration 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 problems or concerns.
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 or Windows server	Enjoy 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	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	This feature integrates the actionable alarms created by the Cisco Prime Collaboration Assurance module into other management systems, providing easy integration with existing operating 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 usage 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 the number of 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	
Severely Concealed Seconds Ratio (SCSR)	This feature 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 severely concealed seconds to notify operators about quality events. MOS scores will still 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	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 CDRs	Help ensure that each video session is the highest quality possible.
Diagnostics and Testing	
Jitter, packet loss, differentiated services code point (DSCP), and percent usage 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 problems that can reduce quality for voice and video endpoints. - Medianet technology is no longer being developed and is being replaced by Software-Defined Networking (SDN) Application Policy Infrastructure Controller - Enterprise Module (APIC-EM). APIC-EM support is planned for a future release of Cisco Prime Collaboration Assurance and will provide 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	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 usage	Create user-defined groups of trunks and monitor the aggregate percent 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	Control user activity based on role, avoiding unauthorized operations.
Multidevice RBAC	Provide granular control for administrators handling assurance functions for a specific set of devices or endpoints.
Multicustomer Support	
Managing multiple Cisco Unified Communications deployments	Reduce 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	Reduce server and operating overhead expenses previously associated with multiple Cisco Prime Collaboration Assurance instances, allowing concurrent use of the same IP addresses across Cisco Unified Communications 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. This feature views device alarms and events by customer.
Multilevel RBAC	Assign partner administrators 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 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	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 usage	Identify over- or underused endpoints for better capacity planning and to promote efficient usage practices.
Provisioning details about 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 about 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.
Redundancy: Included	
Local VMware High Availability redundancy	Eliminate 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.
Geographically remote redundancy	Reduce the administration of a parallel standby server with this new feature in Cisco Prime Collaboration Assurance 11.0. Geographic remote redundancy helps ensure a standby current database and 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.   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 levels. Operators can easily act on faults from the device 360-degree view.
Event correlation and 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 problems with a view of Cisco Unified Contact Center Enterprise-specific critical KPIs, avoiding costly service interruptions.
SIP 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 (refer to Figure 6).

Figure 6. Call Trace and Analysis
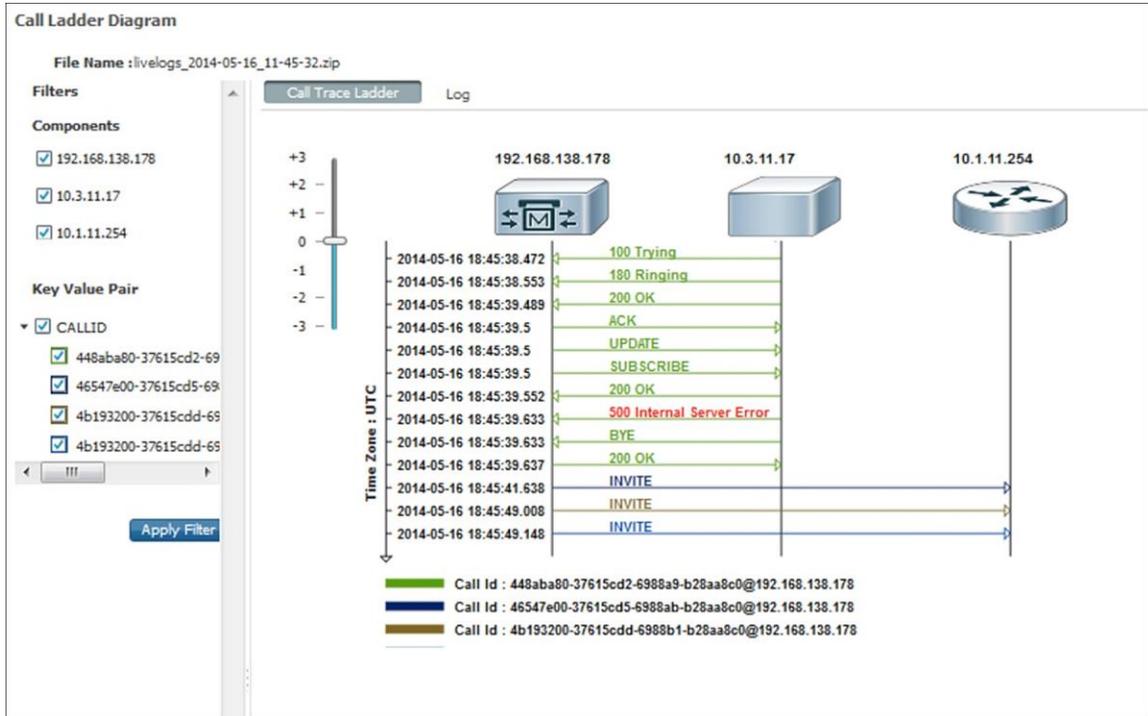
Table 4. Cisco Prime Collaboration Analytics

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; and determine voice and video service consumption trends.
Asset usage	Analyze trends for least-used endpoints, no-show telepresence endpoints, telepresence room use, and video use of conference devices.
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), gateway digital signal processor (DSP), and trunk usage. Customize groupings (trunk groups, route groups, and CAC location groups) for focused usage trend analysis.
Unified communications systems performance	Analyze 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	Create a variety of custom reports by selecting attributes dynamically from a list of available metrics (refer to Figure 7).
Video conferences	View statistics about video conference types and top N video conference locations.

Figure 7. Custom Report Generator
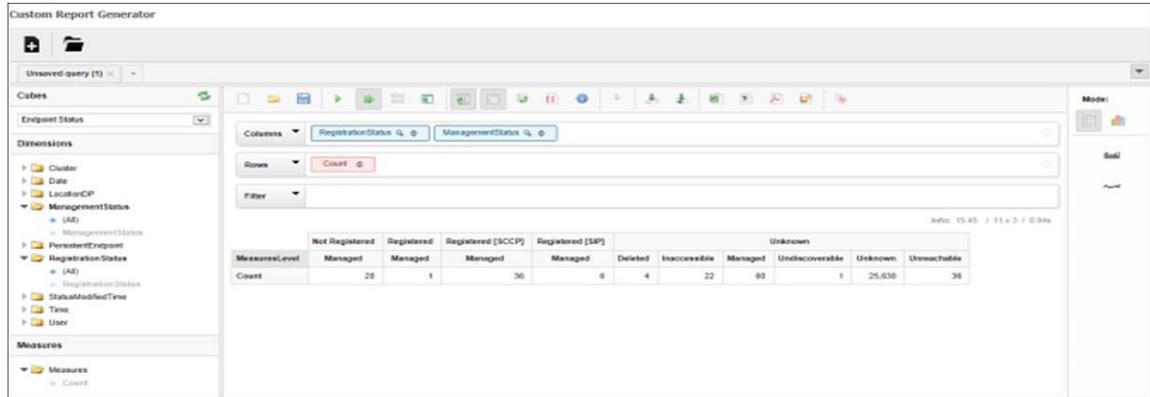
Cisco Prime Collaboration Standard and Advanced

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. For more information about the features of Cisco Prime Collaboration Standard and Advanced, view the latest white paper on the Cisco.com Prime Collaboration product website at: http://www.cisco.com/c/en/us/products/cloud-systems-management/prime-collaboration/white-paper-listing.html.

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 quantity.

When ordering Cisco Prime Collaboration, the Assurance, Analytics, and Provisioning modules are options, available separately or in bundles. Cisco Prime Collaboration Analytics and Cisco Prime 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. To download trial software, visit the Cisco Promotional Software Store.

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

Financing to Help You Achieve Your Objectives

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.

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.

Printed in USA EDCS-1498615

C78-734833-03   11/16