

Cloud Collaboration

The cloud is an enabler and an accelerator for collaboration capabilities. Cloud technologies enable the delivery of collaboration services in an "as-a-service" model, making advanced collaboration capabilities accessible to businesses while minimizing the requirements for upfront investments and for building deep expertise in these technologies. In addition, the use of collaboration services from the cloud can accelerate rollouts, improve business agility, lower ongoing maintenance and utility costs, and continuously deliver new capabilities without the need for lengthy and expensive upgrade projects.

Cloud collaboration with the Cisco® Hosted Collaboration Solution (HCS) delivers the advantages of Cisco's collaboration solutions, with the financial, operational, and strategic benefits associated with cloud services.

Cisco HCS Enables Cisco Partners to Deliver Cisco Collaboration Capabilities from Their Own Clouds

Cisco HCS packages Cisco's collaboration products for service providers who intend to deliver their own branded unified communications and collaboration (UC&C) cloud services for enterprises.

HCS offers a productized architectural solution accompanied by a compelling commercial model and joint go-to market partnership. As part of the Cisco HCS proposition, partners can benefit from a:

- Productized solution with industry-leading collaboration applications, reference architectures, a comprehensive management toolset, and an optimized platform
- Roadmap and strategy influenced by partners and customers
- · Portfolio of professional services spanning design, build, support, maintenance, and operations
- · Tailored commercial model and licensing terms that are aligned with how partners go to market and sell their solutions
- · Joint go-to-market commitment through a branded partner designation and joint selling

A number of leading telecom service providers and systems integrators are using Cisco HCS to deliver collaboration services such as unified communications, contact center, and telepresence from the cloud. They are creating innovative services packages that build on the Cisco platform that HCS provides by adding other services of their own.



Cisco HCS Delivers Value for Collaboration Customers

By consuming collaboration services from the cloud, organizations can decouple the feature sets for their users from their locations. This enables IT to provide differentiated collaboration solutions for users based on their role in the organization, regardless of location. They can choose simple-to-consume packages or "as-a-service" solutions to be deployed wherever and whenever they are required. These solutions can be turned on at the customer's pace and scaled as required. In addition they can be managed efficiently through the HCS management platform. This flexibility and agility helps safeguard investments while providing IT agility that enables efficient resource management. Existing Cisco cloud collaboration customers are realizing these benefits:

- Accelerated transition to collaboration (customer journey)
- Optimized resources and capital (predictability and annuity based)
- IT agility (standardized/consolidated services and management)
- Evergreen applications and services (features and capabilities)
- Ability to ramp service up or down (flexibility)

Cisco HCS Components

The Cisco HCS solution comprises four integrated components (Figure 1).



Figure 1. Cisco Hosted Collaboration Solution

Cisco's market-leading collaboration applications are delivered within a highly secure, cloud-ready, virtualized platform that is made available on a scalable and resilient network. The entire environment is managed through a centralized management system that provides fulfillment and assurance capabilities as well as billing mediation, with role-based access control for delegated administration.



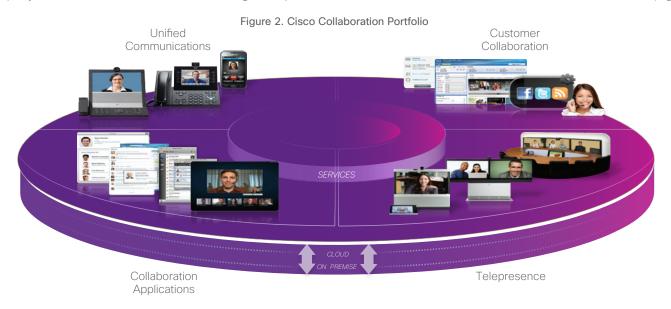
Cisco HCS Unified Communications and Collaboration Applications

Cisco offers the industry's broadest portfolio of unified communications and collaboration applications and services. Central to Cisco HCS is the availability of this portfolio in a hosted environment. Users can enjoy the same rich collaboration feature set, whether the application resides on the customer's premises, in a service provider's data center, or a combination of the two.

With HCS, partners can offer the following UC&C applications to their end customers:

- · Cisco Unified Communications Manager (call control for voice and video)
- Cisco Unity® Connection (voicemail)
- Cisco Jabber™ (instant messaging/presence and soft endpoint)
- · Cisco Unified Mobility for Nokia, iPhone, and Google Android clients
- · Cisco Unified Enterprise Attendant Console
- Cisco Contact Center Enterprise (customer collaboration)
- Cisco WebEx® (web conferencing)
- · Cisco TelePresence® (point-to-point and multipoint videoconferencing)

In addition to collaboration solutions from Cisco, the flexibility and interoperability provided by Cisco HCS enable Cisco partners to incorporate their own or third-party solutions into their own service offering. This promotes further innovation and differentiation to benefit the market (Figure 2).



Each customer is served by dedicated virtual applications in the service provider's data center, enabling the customer to achieve the benefits of dedicated software while the service provider makes full use of hardware, with carrier-class flexibility and resiliency. The optimized virtualization platform is based on Cisco Unified Service Delivery, our next-generation integrated data center system, including the Cisco Unified Computing System™. In Cisco HCS, this data center environment has been optimized and characterized for real-time collaboration applications and can provide new levels of performance, lower total cost of ownership (TCO), and increased operational productivity. Through a combination of the Cisco Unified Computing System, VMware software, Fibre Channel SAN storage, and Cisco Nexus® switching platforms, service providers can offer collaboration services while reducing CapEx and OpEx. Installations and upgrades are easier to perform, and security and redundancy are improved.

Scalable and Resilient Network

The HCS reference architectures provide guidelines for a highly secure, scalable, and resilient network architecture that enables Cisco partners to provide collaboration services with a high quality of service (QoS) and an excellent user experience. The Session Initiation Protocol (SIP)-based architecture is tightly integrated with the provider's transit infrastructure to support rich collaboration services across the WAN and deliver those services with end-to-end control and security. The architecture includes session border control integrated into the routing infrastructure and an optional centralized call-control element to enable both on-network routing between customers and off-network interworking with the public switched telephone network (PSTN), other SIP networks, and third-party software-as-a-service (SaaS) clouds. HCS also provides integration into IMS (IP Multimedia System) mobility networks via the ISC (IP multimedia Service Control) interface, enabling service providers to extend unified communications and collaboration capabilities to endpoints on their IMS network through a simple one-time integration.



Centralized Management System

The management environment is focused on operational efficiency and customer service, from initial implementation and services activation to ongoing provisioning and service assurance. It combines best-in-class domain-level management tools with aggregated fulfillment and assurance views for optimal control and advanced automation. All domains can be centrally managed with a high degree of automation, and many subscriber services can be self-administered by local administrators and end users. The solution provides a built-in capability to integrate with custom or existing operation support system (OSS) and business support system (BSS) components, designed to enable a management environment that best suits the service provider's needs.

The management platform also includes system-level utilities for managing installations, upgrades, and backup/restore tasks; license management; billing mediation; and infrastructure provisioning.



Cisco HCS Management Architecture

Figure 3 HCS Management Architecture

Existing Partner Systems (OSS/BSS, Ticketing, or other Northbound)

Service Fulfillment

Service Assurance

Cisco Prime™ Central for HCS Root Cause & Service Impact Analysis

InfoVista*

Service Impact Analysis

TP/Video

CCE

Mobility/FMC

Cisco UC

Cisco UC

Cients

Data Center

UCS

SAN

33/46 Mobility/FMC

Cisco UC

Cients

Cisco

Figure 3. Delivering Platform Depth

Summary

The Cisco Hosted Collaboration Solution enables the delivery of Cisco's industry-leading collaboration applications from Cisco partner clouds in "as-a-service" models. Its architectural framework allows the creation of differentiated service bundles by HCS partners, providing partners with the opportunity to create additional revenue streams, and end customers with a rich portfolio of cloud collaboration options to choose from.

For more information, please visit www.cisco.com/go/hcs.

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