Introduction

Contact center solutions have been front and center since the start of the Covid-19 pandemic in 2020 as businesses worldwide have been forced to make significant changes to customer service operations. First, most enterprises were forced to quickly adopt agent-at-home models. Second, with stores, offices, and branches closed, the contact center became even more critical for businesses to communicate with customers. Thus, while the pandemic may have caused the changes, they are expected to endure for some time — and so the distributed, agent-at-home model has proven to be advantageous.

All of this amplified the importance of contact center as a service (CCaaS) as not just a valid but a critical solution model for distributed agent-at-home contact center operations. The CCaaS sector, which is experiencing rapid growth, is a cloud-native category of software services that generally leverages the web browser as its primary agent endpoint. CCaaS enables businesses of all sizes to deliver mission-critical customer service.

While CCaaS is a relatively new category, the contact center is not. The sector emerged in the ’60s with specialized telecommunications hardware. The servers eventually moved to the cloud, and headset-connected desktop computers have largely replaced telephones.

CCaaS providers today offer state-of-the-art technologies for customer interactions. The model is about more than cloud deployment — it brings together artificial intelligence, Workforce Experience Management (WEM), scalability, and automation. CCaaS aligns with numerous IT and communications trends — for example, integrated collaboration tools, thin clients, and work-from-anywhere.

Cisco entered this growing CCaaS market in 2020 with Webex Contact Center to address the increased demand. Leveraging years of experience as a contact
center leader, Webex Contact Center was built from the ground up with a microservices-based architecture. This cloud-native solution, designed for customers of all sizes, offers a unified agent experience and a powerful, centralized administrative portal for operational efficiency.

Webex Contact Center offers a native, Chrome-based experience, providing a robust CCaaS solution directly through the browser. Additionally, Google has recognized Webex Contact Center as a Chrome Enterprise Recommended partner, meaning that the solution has met Google’s high technical and support bar to be considered optimized for Chrome OS. It’s not just about the use of Chrome OS as a preferred endpoint. The program also recognizes partners that value the extensive management features of Chrome Enterprise. The intuitive, customizable Webex Contact Center agent desktop plus Chrome OS makes it quick and easy to deploy and manage, allowing agents to work from anywhere and improve productivity, all while ensuring an unprecedented level of security for sensitive customer and business data.

According to a Gartner survey, 70% of customer service and support employees want to continue working from home after the pandemic ends. Distributed and remote work introduces several challenges, but agents interact primarily with people who aren’t at the office. In terms of logistics, extending conversations to remote agents isn’t particularly difficult; the challenge lies in operational matters such as performance monitoring, support, and security. These are areas where Webex Contact Center, Chrome OS, and Chrome Browser shine.

**Webex Contact Center Focus: Customer Experience, Agents, Customizable Platform**

In 2020, Cisco rebuilt its CCaaS solution, Webex Contact Center, delivering a new, intuitive agent desktop and digital-first customer engagement utilizing an out-of-the-box service that is customizable through a series of APIs. Webex Contact Center is an extension of Cisco’s unified communications leadership with its Webex Application. The four core values of Webex Contact Center are:

1. **A digital-first customer experience** allows customers to connect how and when they want via chat, text, social, email, or call. For Cisco, developing a digital-first customer experience embodies not just omnichannel but 24/7 self-service and customer experience management. Cisco’s digital-first experience — married with cloud-native Chrome OS that can support voice, video, and textual communications, including chat, email, and social networking, all without specialized software — is a big advantage.

   - An omnichannel approach allows customers to connect on their own terms via their preferred method: chat, voice call, text,
social, or email. Digital-first customer support enables customers to reach out through whatever platform suits their lifestyle. Cisco has added new text and social channel support to Webex Contact Center.

- Customer experience management includes closing the feedback loop with post-support surveys (Webex Experience Management) delivered via text, email, or interactive voice response (IVR) to capture immediate feedback and proactively manage and monitor customer sentiment.
- 24/7 self-service is administered through natural, AI-powered voice and chat that allows virtual agents to provide support at any time.

2. Intelligence helps create super agents (both virtual and live agents augmented with AI) to provide a more responsive service for Webex Contact Center. Cisco has built super agents based on intuitive agent experiences through AI-powered assistance and a modular agent desktop. Market-leading Google Cloud Contact Center AI (CCAI) is an important part of Cisco’s efforts in this area. The agent interface allows for full visibility into customer interactions regardless of the channel. Agents have real-time visibility into previous customer survey responses to personalize current interactions.

- With all the tools available, Webex Contact Center enables super agents through AI-powered assistance and a new modular agent desktop that provides a complete customer history consolidated into a single view, ensuring agents are always context-aware in order to best tailor client interactions. Customer interaction history and information are integrated into the agent desktop through a widget-based approach that allows third-party application data to be displayed in the desktop. This modular, widget-based approach provides native components like interaction history and allows for extension to customize to specific business use cases, which makes agents more productive.

- Super agent intelligence, leveraging Google CCAI, provides AI-powered chat and voice virtual agents to deflect routine interactions and provide a baton pass to human agents. Remote agent support provides a seamless experience no matter where agents sit.

- Webex Contact Center’s agent desktop experience includes omnichannel task view, customer information, customer experience journey, mid-call features, and the agent profile. The benefits of Webex Contact Center’s desktop interface include:
  - Single view for all inbound channels
  - Seamless handoff, including virtual agent (IVR) transcript
  - Customer experience insights, including analytics view
  - Context-relevant information from external sources via third-party widgets
  - Customizable desktop — choose between light or dark mode

- Webex Contact Center empowers agents to work anywhere, allowing businesses to offload expanding call volume or accommodate agents that need to work from home. Webex Contact
Center can be quickly deployed to scale up new agents to take calls anywhere, giving staff a seamless experience regardless of location.

3. While Webex Contact Center is ready out of the box, it is also a **highly customizable platform** for maximum flexibility through both an integrated communications platform as a service (CPaaS) (Webex Connect) and a set of open APIs that allow even deeper customization. The CCaaS service is based on a microservices architecture that provides flexibility and feature innovation. Omnichannel routing simplifies interaction handling regardless of underlying queues, agents, channels, and skills. The platform intelligently distributes calls across any number of sites and locations, with ease of integration that lets businesses work with the channels that match their business.

- Webex Contact Center’s drag-and-drop flow control builder, which comes from Webex Connect, puts customization in the hands of the user. Open APIs allow for customization of AI, data, media, and desktop capabilities. Businesses can integrate the solution with CRM and business applications, including Salesforce, MS Dynamics, and Zendesk.
- The CCaaS solution is fully customizable through an API-first platform. The Webex Contact Center API gateway allows customization for agents by embedding third-party gadgets and customizing the agent desktop; for media by retrieving media captures for a specific interaction (voice, email, chat); for data through retrieving tasks, agent activities, queue details, and reporting statistics; for AI through real-time speech-to-text transcription; and for UI/Platform through customization of notifications and shortcuts.

4. While Webex Contact Center is a CCaaS solution, it is also a **collaborative contact center** that supports multiple communication modalities for agents or enterprise-wide use, including integration of the Webex App in the agent desktop for calling, messaging, and meetings. Or combine Webex with Google Workspace for email, calendaring, messaging, and video collaboration. Either way, Cisco’s intuitive hardware, including devices and headsets, is compatible with Webex and Workspace. Having an integrated CCaaS and UCaaS solution allows agents to have a unified solution for communicating with the larger organizations.

**Chrome Enterprise for CCaaS**

When Google launched Chrome back in 2008, it was the first internet browser that actively optimized for cloud-delivered applications and data. Over the years, administrative controls were added, such as admin controls, kiosk and managed guest
modes, active directory integration, and Linux container support. These controls now fall under the Chrome Enterprise umbrella.

The solution track for Contact Center in the Chrome Enterprise Recommended program assures enterprise customers that these provider applications, including Webex Contact Center, are verified to meet Chrome Enterprise criteria. Additionally, the Chrome Enterprise Recommended designation signals that Google and each CCaaS partner are working together on growth and innovation and share a mutual commitment to an optimized support experience.

Before CCaaS, most contact center applications used legacy client/server architecture. This approach required specialized software on each agent desktop and often required the agents to be near the servers. The desktop browser changed everything. It eliminated the complexity of software management, ensured all agents had the same software, and freed agents to work in different locations.

The Chrome Enterprise Recommended program recognizes applications such as Webex Contact Center and Webex Meetings that work well with both the Chrome browser and Chrome OS built-for-purpose devices. A Chromebook is a laptop-style, all-in-one device that includes a display, camera, keyboard, and of course, the Chrome OS operating system. A Chromebox is similar but requires a separate monitor, keyboard, and mouse.

Chrome Enterprise brings the benefits of the web and web browser to the enterprise. It offers security, worry-free management, and tailored solutions. The Chromebook, powered by Chrome OS, delivers Chrome in a cloud-optimized device that is practically built for contact center agents. It’s inexpensive and capable of supporting multiple communication channels. Chrome Enterprise adds the necessary management tools for a scalable, secure solution for agents regardless of where they choose to work.

Chrome OS was built for the cloud and provides quick and easy access to contact center solutions. As a familiar UI, it offers an intuitive, clutter-free experience that allows agents to onboard quickly and focus on delivering better customer support. Chromebooks are fast to start and operate, can be shared, and are easy to deploy and manage. They offer strong, seamless security, and software upgrades don’t get in the way.

While there are some different opinions regarding where agents will work post-pandemic, Chrome Enterprise combined with CCaaS makes a lot of sense. The Chrome Enterprise Recommended badge unlocks a new set of features and support.
Chrome and Chrome OS offer a number of value propositions for the contact center environment, including:

### 1. Deployment Ease

Whether it’s Chrome or Chrome OS, Chrome is a universal client for all websites and web apps. The user experience on Chrome is identical, whether it’s a browser on a PC or built into a Chromebook. Chrome Enterprise adds additional back-end features optimized for enterprise deployments.

When work-from-home became a strategic imperative during the pandemic, many organizations discovered how quickly Chromebooks could be deployed. According to a technical review by ESG (July 2020), Chrome OS devices deploy 76% faster than Windows 10, and businesses can redeploy them 96% faster*. In addition to quick configuration, Chrome OS devices also support zero-touch enrollment. They can be shipped directly to employees and configured remotely. They are cloud-optimized devices, though they also support offline use cases.

Over 80 certified Chromebook devices are available from multiple vendors in a range of configurations. Most units have a full QWERTY keyboard, webcam, and USB port, and some also have Bluetooth and cellular options. Enterprise-grade Chromebooks are typically purchased for about $500-$700 US each. The Chrome browser can be installed on Windows, Macintosh, and Linux computers.

### 2. Versatility

Chrome OS endpoints, including Chromebook, Chromebox, Chromebase, and tablets, are highly versatile desktop devices. They can run traditional and progressive web apps, as well as most Android and Linux apps. And because Chrome OS endpoints feature the full desktop version of Chrome, they can also access Chrome Store extensions. Chrome extensions are often critical in enterprise communications and workflows.

Chrome OS endpoints can also run Windows applications in two different ways: VDI and Parallels. A VDI platform, such as Citrix or VMware, allows organizations to serve Windows and other applications to Chromebooks regardless of location. Chrome Enterprise also offers the Parallels Desktop, which locally installs a full copy of Windows on the Chrome OS device. Chrome OS can even redirect specific Windows file types directly to the Parallels instance to ensure an intuitive experience.

For organizations looking to migrate to Chrome OS, Google supports CloudReady. Based on Google’s open-source Chromium, CloudReady is an OS that optimizes existing Windows and Apple computers for the cloud. When paired with the Chrome Enterprise Upgrade, CloudReady devices can be enrolled alongside other Chrome OS devices in the Google Admin console, yielding control and visibility to manage a unified endpoint fleet quickly and seamlessly. This allows customers to leverage existing investments in endpoints while unlocking the benefits of Chrome OS in their contact center environments.

Most CCaaS applications are browser-ready, and many specify Chrome already. If the client runs in the browser, including the softphone, it likely runs on a Chrome OS endpoint. If not, then an Android or Windows version of the app could likely be
accessed from a Chrome OS endpoint. Chrome OS endpoints meet the application requirements for Webex Contact Center.

Chrome and Chrome OS are multitasking endpoints that can run multiple tabs and support voice, video, chat, and more. Most cloud-delivered CRMs, communications and collaboration apps, and office productivity apps run natively in the browser, making the platform a natural fit for contact center workers.

**Webex Contact Center and Chrome Enterprise**

Cisco and Google, through their respective Webex and Chrome initiatives, are committed to and facilitate important contact center requirements:

**Hybrid working:** Today, most service organizations are adopting or accelerating their work-from-anywhere programs and, as such, need contact center solutions that allow agents maximum flexibility. Many contact center leaders are increasing investments in solutions that support employee and management needs independent of location, including cloud-optimized, secure, and portable desktops. Chromebooks support leading CCaaS solutions, including the ones in Chrome Enterprise Recommended, and enterprise workloads. Cisco recognizes that hybrid work spans a wide variety of employees and is an important focus for its entire family of Webex solutions, including Webex App, Webex Suite (its collaboration and communications solution), and Webex Contact Center. Organizations can utilize the Webex Suite integrated into Webex Contact Center to provide an end-to-end solution across their complete employee base.

**Omnichannel communications:** The contact center isn’t just about voice anymore. Solutions also need to support chat, text, email, and social. In addition to voice, Chromebooks can support video and textual communications, including chat, email, and social networking, all without specialized software. Chromebooks also work with a variety of third-party peripherals, such as headsets and cameras. Webex Contact Center is fully omnichannel-capable, with the ability to customize the platform through APIs that allow for third-party application integration and widgets.

**Enterprise portals for management:** IT departments are faced with the challenge of a dispersed workforce and multiple electronic communication and collaboration tools. Managing a multitude of applications and devices with agents spread across remote and home offices is challenging for most IT departments. Webex’s Control Hub is a web-based portal that provides a single administrative dashboard to manage all Webex devices and services, including Contact Center. Beyond managing Webex services and users, Control Hub is a key component for security of the Webex platform. Once devices, such as Chromebooks, are onboarded for Webex Contact Center agents, administrators have visibility into the details and states of the devices, regardless of location.
**Security:** Security is of utmost importance when dealing with customer interactions and privacy, and Google and Cisco have both put security at the forefront of their solutions. Administrators can unlock devices with AD credentials and direct policies from Group Policy Objects. Every Chrome OS device comes with a Google Security Module, a tamper-resistant chip that enables encryption of user data on the device. Chromebooks have encrypted, read-only firmware to eliminate virus threats. It’s no wonder that Chrome OS devices have never been compromised in a ransomware attack. Chrome OS devices offer client-side encryption services. CCaaS providers can strengthen the confidentiality of data while addressing a broad range of data sovereignty and compliance requirements. Google even takes the extra step of giving its enterprise customers direct control of encryption keys and the option to select their preferred identity service. Cisco has a long history of placing security at the center of its solutions, which includes the full Webex suite of products. Webex follows Cisco’s security principles of privacy, security, and transparency as part of the Cisco Secure Development Lifecycle (SDL). Cisco Webex secures users and identity through a host of capabilities, including active directory synchronization, multi-factor authentication, support for SSO with customer choice of identity provider, and OAuth 2.0-based standardized authorization. Webex’s Control Hub management portal allows Cisco partners, developers, and customers to provision users, including agents, in a secure mode.

**24/7 support:** Increasingly, businesses need to support customers 24/7, and contact center solutions need to be able to meet that need. Chromebooks simplify the challenges of both getting remote employees productive and keeping them productive with ongoing support. Browser-based CCaaS solutions should automatically update, providing a consistent user experience across all devices. Chromebooks support roaming profiles so that users can continue their work where they left off on any device. Chromebooks don’t suffer from the version control issues that plague other operating systems. If a Chromebook does fail, recovery is fast and possible without the need for IT to configure a new or replacement device. And Chrome Enterprise includes 24x7 technical support. With Webex Contact Center, businesses can have agents working anywhere rather than being tied to a formal support center. Having a cloud-delivered CCaaS solution allows contact center operations to provide support around the clock on a global basis while diversifying the risk of having centrally located agents.

**Final Thoughts**
Webex Contact Center is a CCaaS solution that has been designed for the next-generation agent experience with intuitive desktop tools and enhanced productivity features. The service is fully browser-based, with web components requiring no client-side installation, which frees agents from having to be in a set location and is ideal for remote work requirements. Webex Contact Center can support small service operations while scaling up to large contact centers, which gives companies flexibility as they expand or contract.

While Webex Contact Center is ready out of the box, custom layouts and widgets incorporating tools such as Webex Experience Management help
agents have a better context around customer relationships and engage appropriately. Webex Contact Center extends functionality through APIs that can integrate multiple applications into a single agent desktop, improving productivity and, by extension, customer experience.

Chrome Enterprise provides a consistent and managed experience across multiple devices, regardless of location. The Chrome Enterprise Recommended program gives Contact Center providers and their customers an endpoint strategy that delivers advanced management, low costs, and improved security.

The powerful combination of Google and Cisco extends beyond just the Chrome Enterprise Recommended solution track and Webex Contact Center, including the following complementary areas:

1. Chrome Enterprise Recommended validation also includes Webex Meetings and Cisco Duo Security, making it the only Google partner to have three solutions validated under CER.
2. Cisco Webex works with Google CCAI for additional AI functionality.
3. Cisco Webex devices, including Webex Boards, Webex Room Devices, and Webex Desktop Devices, work seamlessly with Google Meet through one button to push functionality.

Lastly, both Cisco and Google, as enterprise technology vendors, put significant value into service management and security across their platforms and solutions. Chrome Enterprise adds extensive management capabilities, particularly for distributed agents, along with security. The same can be said for Webex Contact Center through Webex Control Hub and its extensive security measures — making the combination of Google and Cisco for contact center and collaboration solutions a strong combination for enterprises to consider.

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