Test Bed 2: Cisco Unified Contact Center Express Test Bed

This Cisco Unified Contact Center Express (Unified CCX) test bed, used to complete testing for the Cisco Collaborative Systems Release 10.5(1), is designed to simulate a medium-sized inbound and outbound contact center with local and remote agents using Unified CCX for call treatment and queuing and Cisco Unified Communications Manager (Unified CM) for call control.

The test bed is designed to simulate a medium-sized inbound and outbound contact center with local and remote agents using Unified CCX with Cisco Finesse, Microsoft Exchange 2010, and Unified CM for call control.

This test bed is designed to implement and test some of the design considerations and guidelines of the Cisco Collaboration Systems Release 10.x Solution Reference Network Designs, and Cisco Unified Contact Center Express Solution Reference Network Design (SRND).

For information about how to install and configure these and other Contact Center components, see Components Installation and Configuration Guides at:

Cisco Collaboration Systems for Contact Center Release 10.5(1)

Additional configuration information for contact center call flows and components is available at: Unified Communications System Implementation

This topic contains the following sections:

- Unified CCX Deployment Model
- General Deployment Options

Unified CCX Deployment Model

This Unified CCX test bed is designed to replicate a 400 agent inbound and outbound contact center in multiple sites where agents are located locally, as well as in remote sites. The test bed design has two data centers separated across a WAN. Agents use Cisco Finesse, Cisco Unified IP Phones, and video endpoints TelePresence EX60, and EX90.

The entire deployment uses two data centers connected through a high speed WAN for redundancy. All solution components are designed for high availability (HA) wherever possible. The topology is shown in Figure 1.

Figure 1 **Unified CCX Test Bed Topology**
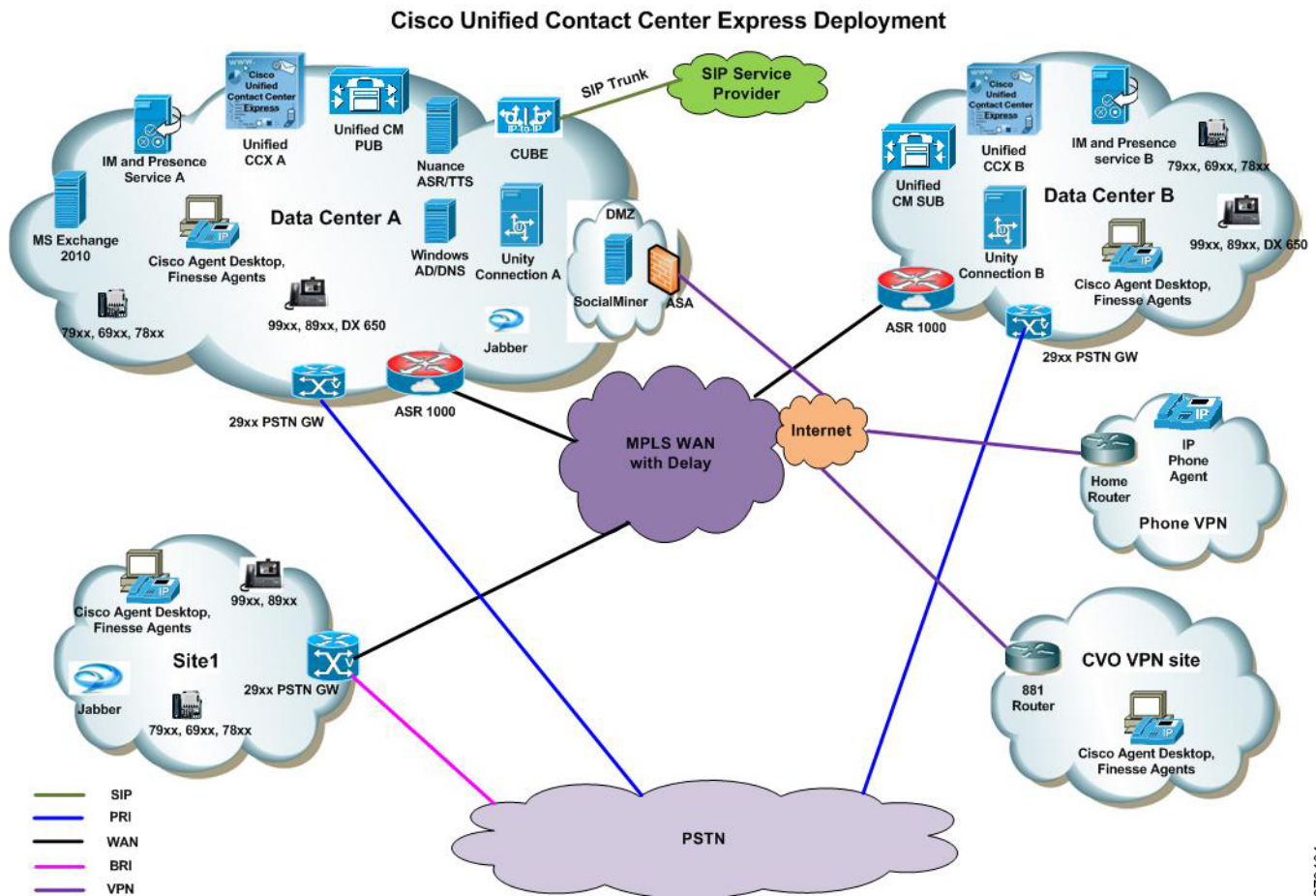
General Deployment Options

Cisco Unified Contact Center Express provides a secure, highly available, and easy to deploy customer interaction management solution for up to 400 agents. This integrated "contact center in a box" is intended for both formal and informal contact centers.

Unified CCX provides options to address multiple contact center functional areas such as:

- Inbound voice
- Outbound campaign
- Agent email
- Inbound web chat

Other components included are:

- Web-based reports
- Social Miner user licenses for social forum activity monitoring and follow-up
- Cisco desktops

- Web-based Finesse desktops
- Cisco Agent and Supervisor desktop

You can deploy these options on Cisco Unified Computing Systems (UCSs) or any other equivalent specification-based third-party virtual servers with the supported deployment models.

The following features were tested by GB:

Cisco Finesse (Finesse)

Finesse is the next generation browser-based agent and supervisor desktop for Unified CCX. Finesse is an alternative to Cisco Agent Desktop, Cisco Supervisor Desktop, and Cisco Desktop Administrator. Finesse is available with Enhanced and Premium license packages and provides typical inbound voice contact center functionality. It supports Unified Communications Manager-based silent monitoring and workflow-based recording with Cisco MediaSense (MediaSense) and Work Force Optimization (WFO).

Unified CCX Home Agent

Extend and Connect allows Unified CCX agents to work from a remote location using devices such as public switched telephone network (PSTN) phones and private branch exchange (PBX) devices. Agents are configured with a Computer Telephone Interface (CTI) remote device (instead of a physical phone) and the agent's PC has Cisco Jabber (Jabber) installed in Extend mode. The agents can set their phone devices as the agent phone through the Jabber interface.

To reduce media setup time and enhance caller experience, a persistent connection call is placed to the agent's phone device, which the agent should not disconnect. Routed calls are delivered to the agent seamlessly over the persistent call, and the agent hears a notification when the call comes in.

Routed calls are delivered to the agent seamlessly over the persistent call, and it can be configured so that the agent hears notifications when the persistent connection call is established, as well as a separate notification as each customer care call is delivered to the agent.

E.164 Support

E.164 is supported for agent extensions, route point directory numbers, editor steps and phone book dialing. Organizations can integrate their numbering plan across the enterprise using E.164.

Unified CCX Multi-session Web Chat

Unified CCX Premium provides the facility for end users to initiate a chat session with the agent from a website, typically the public website of the organization using the Unified CCX. Unified CCX provides separate agent and supervisor web applications.

Unified CCX Multi-session Chat offers contact center chat solution wherein a Finesse Agent can take multiple chat requests from customers (max 5 per agent) along with voice calls.

Unified CCX Predictive and Progressive Agent Outbound

The Outbound feature provides Outbound dialing functionality in addition to existing Unified CCX inbound capabilities. This feature allows agents who are not busy with inbound calls to handle outbound calls.

With the Outbound feature, customer calls are placed using the Cisco Unified Communications by way of the Unified CM for call control.

Agent Predictive/Progressive Dialer is developed to leverage call control and Answering Machine Detection (AMD) capability of SIP Gateway Interface to perform dialing, call control, and Call Progress Analysis for Outbound campaigns. This offloads call control off the Unified CM since the calls that need not be treated by an agent such as no answers, busy tones, and so on are not sent to Unified CM.

Unified CM Based MediaSense Recording in Unified CCX

On Demand Unified CCX MediaSense Recording Feature was introduced as part of Cisco Collaboration Systems Release 10.0. It allows calls to be recorded for all the Unified CCX Finesse agents in a team on a MediaSense Server(s).