ClearOne®

COLLABORATE VCB
GETTING STARTED GUIDE

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Collaborate VCB

GETTING STARTED GUIDE

WARNING: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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ClearOne Technical Support

This Getting Started Guide was designed to help you set up and work with your Collaborate VCB easily so that you can enjoy its many features.

This User's Guide was designed to help you set up and work with your Collaborate VCB easily so that you can enjoy its many features.

If a situation occurs that is not covered by the supplied documentation, contact your local ClearOne distributor, and request assistance from their ClearOne trained technical support department. Please describe the problem, device, and PC operating system (if applicable), and any other relevant details.

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Page	Type of support
Support Notes	Troubleshoot or receive technical information about specific ClearOne products.
Downloads	Download a new software release or a free product evaluation.
Demo Numbers	Test your videoconferencing system.
License Key Requests	Request a permanent license key for your organization's Collaborate Central(s).

Table of Contents

Chapter 1:   Welcome to the Collaborate VCB

IN THIS CHAPTER

This chapter introduces the Collaborate VCB and includes the following sections:

- Introduction
- Package Contents

INTRODUCTION

Collaborate VCB, ClearOne's premier Multipoint Conferencing Unit (VCB), enables:

- Initiation and management of multipoint conferences, including both scheduled and ad-hoc conferences, which are multipoint sessions that were expanded from point-to-point calls.
- High definition video resolution.
- Recording and streaming live conferences
- Wide range of rich, dynamic layouts for the simultaneous viewing of several participants. Up to 25 users may be displayed at the same time.
- Web-based management/configuration, videoconference scheduling/moderating and reporting applications.
- Simultaneous multicast streaming of active conferences and multimedia to multiple passive participants.

Collaborate VCB includes advanced features, such as video and audio transcoding, support of high definition video resolutions, conference recording and streaming, advanced cascading, as well as basic features such as continuous presence, presenter mode, password-protected conferences and voice-activated switching.

Collaborate VCB includes the Conference Moderator, which provides administrators and users with the ability to schedule conferences in advance, also from within MS Outlook, and to manage them remotely. At the appointed time, the Conference Moderator initiates the conference and connects the conference participants. Conference hosts can also control when participants join or exit sessions, and transmit video and data streams to the participants. For more details, see the *Conference Moderator Help*.

Collaborate VCB's robust Chair Control provides several options for displaying conference participants. A rich selection of predefined layouts expands on the traditional methods of Continuous Presence and Voice-activated Switching. Additionally, conference organizers can choose among the following view switching modes for each session:

- **Lecture** – Showing the Lecturer in full screen mode for all participants. Lecturer sees a pre-defined Continuous Presence layout of all participants.

- **Dominant Speaker** – Showing the most recent speakers in the conference or from within predefined groups.

- **Fixed Image** – Showing specific views throughout the conference's duration.

- **Timer Image** – Showing a rotation of Continuous Presence views, changing at timed intervals.

The Collaborate VCB supports the following:

- H.261/H.263/H.263+/H.263++/H.264 video transcoding support in Voice- activated Switching and in Continuous Presence.

- High definition (1080p) resolution.

- Conference recording and streaming and archive management.

- G.711, G.722 and G.722.1 Annex C, G.723.1, G.728, G.729 and AAC-LD audio algorithms with audio transcoding, allowing users to participate in a multipoint conference using different audio standards.

- Up to 6 Mbps data rate per participant in Voice-activated Switching and in Continuous Presence.

- Dial-in conference initiation.

- Password protected conferences.

- Voice notifications in different languages.

- Handles calls connecting up to 48 concurrent users.

- Advanced cascading of multiple Collaborate VCBs for large conferences.

- Support for sessions including H.323 end points/devices and SIP User Agents (through the Collaborate Central's embedded SIP proxy server).

- Data (H.239) transcoding.

- Mode switching, allowing participants to choose the type of viewing mode (Dominant Speaker, Fixed Image or Timer Mode) during a conference.

- Symmetric bandwidth usage during Continuous Presence calls.

- Protection of calls using H.235 (AES) encryption.

- Optional deployment of ClearOne Collaborate Desktop videoconferencing clients.

PACKAGE CONTENTS

When you open the Collaborate VCB shipping package for the first time, check that the following items are included. If any of the items (according to your Customer Order) are missing or damaged, contact your ClearOne representative immediately.

- Collaborate VCB Server unit

- Power cables (2)

- Network cable

- Crossover cable

- User Guide and Utilities CD-ROM

- Getting Started Guide

Chapter 2: Defining the Collaborate VCB IP Configuration

IN THIS CHAPTER

This chapter provides instructions for configuring the Collaborate VCB IP address and includes the following sections:

- Collaborate VCB IP Configuration

- Retrieving Collaborate VCB initial IP configuration

- Assigning Static IP Address to Collaborate VCB with DHCP Address

- Assigning a Static IP Address to Collaborate VCB through interface GbE0

COLLABORATE VCB IP CONFIGURATION

Before you can use Collaborate VCB for the first time, you have to define a unique IP configuration for it. This task is made up of the following procedures:

- Retrieving Collaborate VCB's initial IP configuration

- Changing the IP configuration to unique settings, such as a static IP address
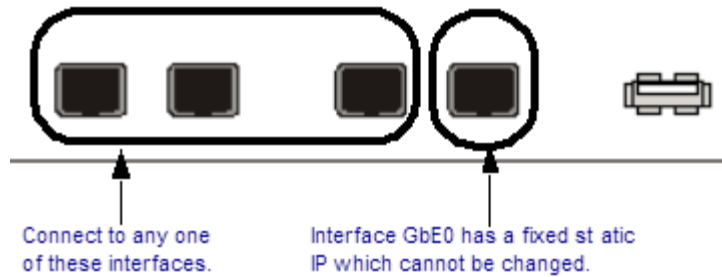
  > **NOTE: For standard operation, we recommend that you connect one NIC/one interface. However, if you require connection through more than one NIC, each NIC must belong to a different subnet.**
  >
  > **Connect a network cable to the interface you configured, only after completing the configuration.**

- For server with 2 LAN ports

Connect to GbE1.

- For server with 4 LAN port

Connect to any one of these interfaces.

Interface GbE0 has a fixed static IP which cannot be changed.

NOTE: For standard operation, we recommend that you connect one NIC/one interface. If nevertheless, you require connection through more than one NIC, each NIC must belong to a different subnet.

Connect a network cable to the interface you configured only after completing the configuration.

RETRIEVING COLLABORATE VCB INITIAL IP CONFIGURATION

The following procedure describes how to get the IP address from the Collaborate VCB unit's front panel.

To retrieve the initial IP configuration:

1. Connect a network cable to any one of interfaces GbE1 to GbE3.

2. Turn the Collaborate VCB unit on. A welcome message appears in the LCD display.

Welcome>

3. In the LCD display, press an arrow button until the **GET IP** command appears. Press the **Enter** button.

4. Press an arrow button again until the connected network card and interface appears (**NIC 1** to **NIC 3** = GbE1 to GbE3) and press the **Enter** button. The Collaborate VCB unit receives an IP address from the DHCP server.

    Select NIC:
    1
    172.20.21.22

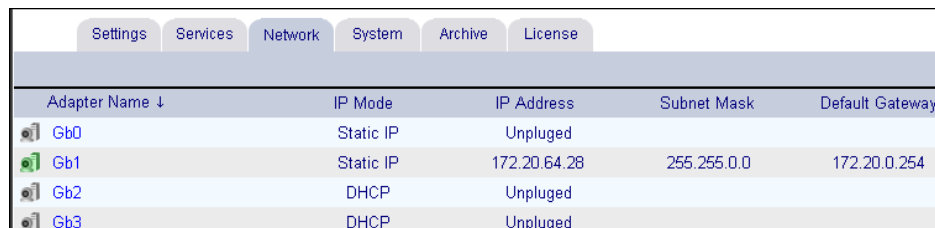5. Leave the cable connected to the chosen interface.

ASSIGNING STATIC IP ADDRESS TO COLLABORATE VCB WITH DHCP ADDRESS

This procedure describes how to set a static IP address when Collaborate VCB is connected to the network and has acquired a DHCP address.

From a remote computer connected to the network, connect to the Collaborate VCB Configuration application, EVCAdmin, using a web browser.

To set a static IP address with DHCP address:

1. Open a web browser and in the address field, enter the EVCAdmin URL: <IP Address>/EVCAdmin.

2. Enter your login name and password. The default name is **su** and the default password is **1234**.

3. Under the Collaborate VCB tab, click **Network**. A list of all network interfaces is displayed.

Settings	Services	Network	System	Archive	License		
Adapter Name ↓		IP Mode		IP Address	Subnet Mask	Default Gateway	
Gb0		Static IP		Unpluged			
Gb1		Static IP		172.20.64.28	255.255.0.0	172.20.0.254	
Gb2		DHCP		Unpluged			
Gb3		DHCP		Unpluged			

4. Select a different NIC than the one you are currently connected to. Click its name to open the configuration page.

Adapter Name: Gb2

☐ **Obtain address from DHCP server**

IP Address:	172.20.20.121
Subnet Mask:	255.255.0.0
Default Gateway:	172.20.0.254
DNS Server:	172.20.0.115

5. Assign a static IP address by entering IP Address, Subnet Mask and Default Gateway. DNS Server is optional, however, if configured it will allow you to switch between ClearOne web applications with no need to login each time.

NOTE: The configured NIC has to be different than the one you are currently connected to.

6. Click **Apply**.

7. Connect a network cable to the configured NIC. Check the correct IP address has been set through the LCD display.

ASSIGNING A STATIC IP ADDRESS TO COLLABORATE VCB THROUGH INTERFACE GBE0

This procedure describes how to set a static IP Address while connected to the Factory Default GbE0.

To set a static IP address through GbE0:

1. Connect a crossover cable between interface GbE0 and a computer. This interface's IP configuration is:

   IP address – 10.0.10.10
   Subnet mask – 255.255.0.0
   Gateway IP address – 0.0.0.0

   • For server with 2 LAN ports

Connect to GbE0.

   • For server with 4 LAN ports

Connect to GbE0.

2. To access the Collaborate VCB unit from another computer initially, the two systems must, at least temporarily, belong to the same network segment. That is, the first three fields of the address and the subnet mask must be identical.

3. Write down the computer's current IP address and subnet mask so that you can restore them later.

4. Change the remote computer's IP configuration temporarily to the same IP address segment (10.0.10.x) and subnet mask listed in step 1.

5. On the computer, open a web browse and in the address field, enter the Collaborate VCB's IP address.

6. Enter your login name and password. The default name is **su** and the default password is **1234**.

7. Under the Collaborate VCB tab, click on **Network**. A list of all network interfaces is displayed.

8. Select NIC interface. Click its name to open the configuration page.

9. Assign a static IP by entering the IP address, Subnet Mask and Default Gateway. DNS Server is optional, however, if configured it will allow you to switch between ClearOne web applications with no need to login each time.

10. Click **Apply**.

11. Connect a network cable to the configured NIC. Check that the correct IP address has been set through the LCD display.

Chapter 3: Logging into Collaborate VCB

IN THIS CHAPTER

This chapter provides Collaborate VCB log in information and includes the following section:
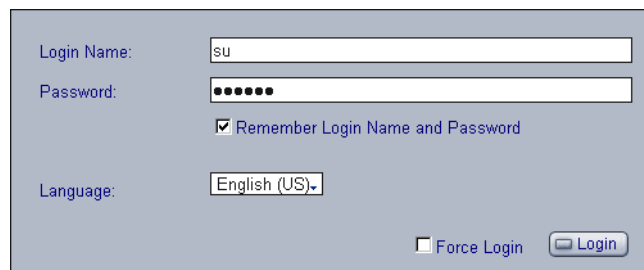
• Logging in

LOGGING IN

When you start the Collaborate VCB program, you must first log in.

ClearOne's Collaborate Central provides gatekeeper functions for Collaborate VCB. Collaborate Central manages the videoconferencing environment among end points registered in it, including multipoint conferencing managed by Collaborate VCB.

To log into Collaborate VCB:

1. In your web browser, enter the URL of your Collaborate VCB. The Login page appears.

2. Enter your login name and password. The factory-defined login configuration is:

   User Name – su
   Password – 1234

3. If necessary, define the following:

   • **Remember Login Name and Password** – Select to allow the system to use the same login values in the future.

   • **Language** – Language of the management program.

   • **Force Login** – If a user with the same Login Name is already connected from a different location, this login attempt will succeed, disconnecting the other user.

4. Click **Login**.

5. Click the **Collaborate VCB** tab to enter the Collaborate VCB Configuration pages.

    Collaborate VCB Configuration is divided into Settings, Services, Network, System, and Archive.

6. When you have more than one Collaborate VCB registered to the Collaborate Central running on the server you are currently connected to, these Collaborate VCB's are listed in the left pane of the page. clicking on a specific Collaborate VCB will show its details and will allow you to configure it.

7. Network settings like IP address, Date, and Time and also recovery of the Collaborate VCB server can be done only by connecting directly to this specific Collaborate VCB server.
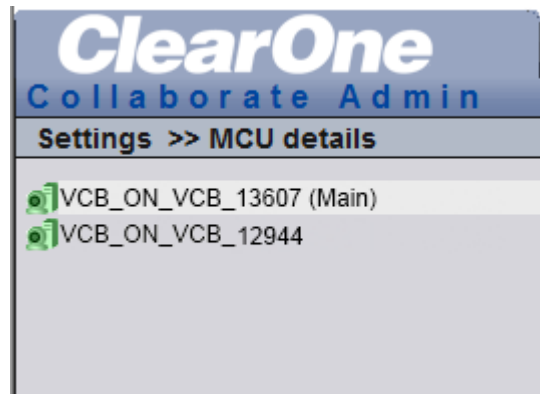
Chapter 4: Cascading VCBs

IN THIS CHAPTER

The cascading option enables you to extended the number of VCB ports. By registering another VCB server to a Management gatekeeper (Collaborate Central) you add more ports to a Collaborate Central server. This allows your Collaborate Central to support large conferences.
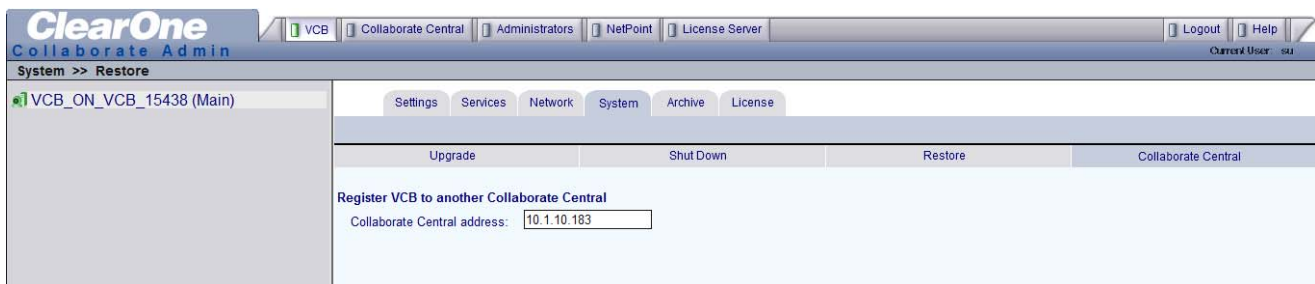
This chapter the following section:

* Registering VCBs to Another Collaborate Central
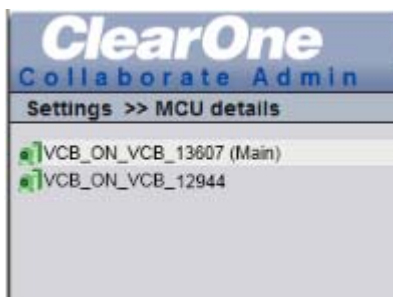
REGISTERING VCBS TO ANOTHER COLLABORATE CENTRAL

To register VCBs to another Collaborate Central:

1. Click **EVCAdmin >VCB > System> Collaborate Central** tab.
2. In the Collaborate Central address field, enter the main Collaborate Central IP address.

3. Click **Apply**.

After you register the VCB, you will see another VCB listed in the EVC admin.

Chapter 5: SSH Commands

IN THIS CHAPTER

This chapter defines the commands available when you access the Collaborate VCB unit through a Secure Shell (SSH), Hyperterminal, or similar application connected to the Console port and includes the following sections:

- Running PuTTY
- Connecting to Collaborate VCB
- Descriptions of SSH Commands

RUNNING PUTTY

A Secure Shell application, PuTTY, is included on the CD-ROM supplied in your Collaborate VCB package.

To run the PuTTY program:

1. Insert the Collaborate VCB compact disc to your computer's CD drive.
2. Browse to the Utilities folder's *putty.exe* program.
3. Copy the *putty.exe* file to your desktop or another location.
4. Double-click the file's icon to run the program.

CONNECTING TO COLLABORATE VCB

To connect to Collaborate VCB:

1. In the **Host Name** box, type the Collaborate VCB host computer's IP address.
2. Click **Open**.
3. Log in using the following parameters:

   User Name – VCBAdmin
   Password – evc123$

DESCRIPTIONS OF SSH COMMANDS

Command	`changeservicestartmode`
Syntax	`changeservicestartmode <Service Name><Mode>`
Description	`Change the specified service's starting mode.`
Parameters	• `Automatic` • `Manual` • `Disbled`

For example:

remotedesktopservice, a service allowing remote desktop connection, is disabled by default. To enable it, set the service start mode to Manual, and then start the service using the "startservice" command.

`changeservicestartmode remotedesktopservice Manual`

Command	`clearevents`
Description	Delete all entries from the application, security, and system event log.

Command	`getevents`
Syntax	`getevents <substring>`
Description	Display application, security, and system event log. If a substring is specified, only events related to the substring will be listed.

Command	`getparam`
Syntax	`getparam <param>`
Description	Retrieve the specified parameter.

Parameters	• `appver` – Display the Collaborate VCB/Collaborate Central application version.
	• `dhcp <0-3>` – Display DHCP-defined IP configuration of the specified NIC, and if it's enabled or disabled.
	• `hwserial` – The first NIC's MAC address.
	• `machinename` – The name of the node.
	• `sshver` – Display the SSH Server version.
	• `time` – Display the current system date and time.
Command	**healthcheck**
Description	Displays system information about the Collaborate VCB's host computer, such as CPU usage, virtual memory usage.
Command	**help**
Description	Lists all SSH commands and their possible syntaxes.
Command	**listip**
Syntax	`listip <0-3>`
Description	Displays the IP address of the specified NIC.
Command	**ping**
Syntax	`ping <hostname or IP address>`
Description	Check if a connection to the specified computer is online.
Command	**processes**
Syntax	`processes <substring>`
Description	Display a list of processes. If a substring is specified, only processes containing the substring will be listed.

Command	**restart**
Description	Restart the Collaborate VCB unit.

Command	**restartservice**
Syntax	`restartservice <Service Name>`
Description	Restarts the specified service.

Command	**services**
Syntax	`services <service substring>`
Description	Lists the services that start with the substring and displays their status. `services clearone` will list only ClearOne services. For example: `CLEARONE EVCS`ʟᴛ `AGENT_1`

Command	**startservice**
Syntax	`startservice <Service Name>`
Description	Starts the specified service.

Command	**stopservice**
Syntax	`stopservice <Service Name>`
Description	Stops the specified service.

Command	**upgrade**
Description	Upgrade to a new version of the SSH Server.