



# **Conferencing Systems**

Video Made Easy

## **VCB VCBPro**

Getting Started Guide

Version 6.0



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# Emblaze-VCON Technical Support

This Getting Started Guide was designed to help you set up and work with your 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 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 Emblaze-VCON distributor, and request assistance from their Emblaze-VCON-trained technical support department. Please describe the problem, device, and PC operating system (if applicable), and any other relevant details.

Also, you may access the Technical Support section of the Emblaze-VCON website (<http://www.emblaze-vcon.com/support/index.shtml>) in order to check its knowledge base or initiate other customer support processes:

<b>Page</b>	<b>Type of support</b>
<b>Support Notes</b>	Troubleshoot or receive technical information about specific Emblaze-VCON products.
<b>Downloads</b>	Download a new software release or a free product evaluation.
<b>Demo Numbers</b>	Test your videoconferencing system.
<b>License Key Requests</b>	Request a permanent license key for your organization's MXM(s).

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# 1 WELCOME TO THE VCB

## 1.1 Introduction

The VCB, Emblaze-VCON's premier Multipoint Conferencing Unit (MCU), 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.
- 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.

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



## 1 Welcome to the VCB

The 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*.

The 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:

<b>Lecture</b>	Showing the Lecturer in full screen mode for all participants. Lecturer see a pre-define Continuous Presence layout of all participants.
<b>Dominant Speaker</b>	Showing the most recent speakers in the conference or from within predefined groups.
<b>Fixed Image</b>	Showing specific views throughout the conference's duration.
<b>Timer Image</b>	Showing a rotation of Continuous Presence views, changing at timed intervals.

The 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.
- 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 4 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.
- Support for sessions including H.323 end points/devices and SIP User Agents (through the MXM's embedded SIP proxy server).
- Multi-point sessions can be joined (cascaded) onto other sessions.

- Applies H.239 support with HD DualStream™, in which both video and data application-sharing may be transmitted to conference participants (whose end points support dual streams). End points that don't support dual streams will receive either the data or video stream, depending on the active VCB Service's configuration.
- H.239 streams may be sent in CIF, 4CIF, VGA, SVGA, or XGA.
- 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 Emblaze-VCON vPoint HD videoconferencing clients.

### 1.2 Package Contents

When you open the 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 Emblaze-VCON representative immediately.

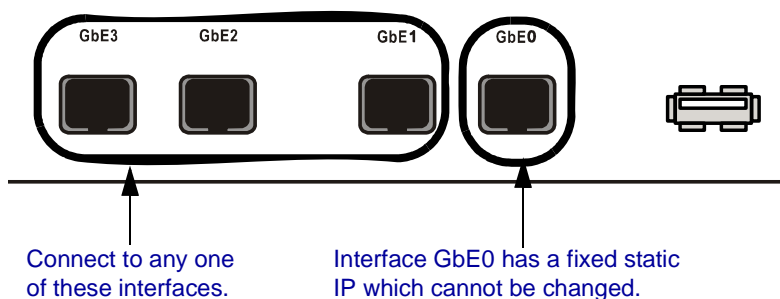
- VCB Server unit
- Power cables (2)
- Network cable
- Crossover cable
- User Guide and Utilities CD-ROM
- Getting Started Guide




## 2 DEFINING THE VCB IP CONFIGURATION

Before you can use the 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 the VCB's initial IP configuration
- Changing the IP configuration to unique settings, such as a static IP address



 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.

### 2.1 Retrieving VCB initial IP configuration

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

- 1 Connect a network cable to any one of interfaces GbE1 to GbE3.
- 2 Turn the VCB unit on. A welcome message appears in the LCD display.



## 2 Defining the VCB IP Configuration

- 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 VCB unit receives an IP address from the DHCP server.

```
Select NIC:  
1  
172.20.21.22
```



If a cable is not connected to the interface, **0.0.0.0** appears in the display.

- 5 Leave the cable connected to the chosen interface.

## 2.2 Assigning a Static IP Address to a VCB with DHCP address

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

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

- 1 Open web browser and in the address field, enter the EVCAdmin URL: <IP Address>/EVCAdmin.
- 2 EVC Home page loads. Click on the EVCAdmin section.
- 3 Enter login name and password. Default name is su and default password is 1234.
- 4 Under the VCB tab, click on Network.
- 5 A list of all network interfaces is displayed.

Adapter Name ↓	IP Mode	IP Address	Subnet Mask	Default Gateway
v0	Static IP	0.0.0.0		
v1	Static IP	172.20.1.56	255.255.0.0	172.20.0.254
v2	DHCP	0.0.0.0		
v3	DHCP	0.0.0.0		

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

Adapter Details

**Adapter Name: Gb1**

Obtain address from DHCP server

IP Address:

Subnet Mask:

Default Gateway:

DNS Server:

Update configuration files

## 2 Defining the VCB IP Configuration

- 7 Assign static IP by entering IP Address, Subnet Mask and Default Gateway. DNS Server is optional.



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

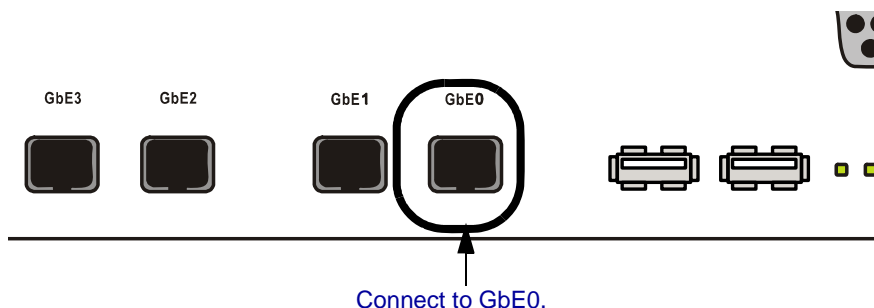
- 8 Check the Aupdate Configuration Files checkbox for all VCB modules to be updated with new IP configuration.
- 9 Click Apply.
- 10 Connect a network cable to the configured NIC. Check the correct IP Address has been set through the LCD display.

## 2.3) Assigning a Static IP Address to the VCB through interface GbE0

This procedure describes how to set static IP Address while connecting to Factory Default GbE0.

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

<b>IP address</b>	10.0.10.10
<b>Subnet mask</b>	255.255.0.0
<b>Gateway IP address</b>	0.0.0.0



- 1 To access the 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.  
Write down the computer's current IP address and subnet mask so that you can restore them later.  
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.
- 2 On the computer, open web browser and in the address field, enter the VCB's IP address.
- 3 EVC Home page loads. Click on the EVCAAdmin section.
- 4 Enter login name and password. Default name is su and default password is 1234.
- 5 Under the VCB tab, click on Network.
- 6 A list of all network interfaces is displayed.
- 7 Select NIC interface. Click on its name to open the configuration page.

- 8** Assign static IP by entering IP Address, Subnet Mask and Default Gateway. DNS Server is optional.
- 9** Click Apply.
- 10** Connect a network cable to the configured NIC. Check the correct IP Address has been set through the LCD display.

## 3 LOGGING INTO THE VCB

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

Emblaze-VCON's Media Xchange Manager® (MXM) provides gatekeeper functions for the VCB. The MXM manages the videoconferencing environment among end points registered in it, including multipoint conferencing managed by the VCB.

### ► To log in to the VCB

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

#### *Logging Into the VCB*

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

<b>User Name</b>	su
<b>Password</b>	1234

- 3 If necessary, define the following:

<b>Remember Login Name and Password</b>	Select to allow the system to use the same login values in the future.
---	--

<b>Language</b>	Language of the management program.
-----------------	-------------------------------------

<b>Force Login</b>	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**.

### 3 Logging into the VCB

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

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

Settings	Services	Network	System
MCU details		Licens	
<b>General:</b>			
Description:	<input type="text" value="VCB_ON_VCB_13607"/>		
Location:	<input type="text"/>		
Network Address:	172.20.1.56		
<b>Product info:</b>			
Vendor ID:	88;0;1		
Product ID:	VCB:H323:VCB2500		
Version ID:	420		
Build number:	6.0.M08.D08.Y07.VCB2500		
<b>Licensing:</b>			
Licensed ports:	12		
<b>Status:</b>			
Last log on:	08/09/2007 14:24:35		
Last log out:	None		
<b>Gatekeeper:</b>			
Gatekeeper address:	<input type="text" value="172.20.1.31"/>		
<b>Port Configuration:</b>			

*VCB Settings - MCU Details*

### 3 Logging into the VCB

- 6 When you have more than one VCB registered to the MXM running on the server you are currently connected to, these VCB's are listed in the left pane of the page. clicking on a specific 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 VCB server can be done only by connecting directly to this specific VCB server.



*VCB Settings - MCU Details*

### 3 Logging into the VCB

# 10 SSH COMMANDS

This chapter defines the commands available when you access the VCB unit through a Secure Shell (SSH), Hyperterminal, or similar application connected to the Console port.

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

## ► To run the PuTTY program

- 1 Insert the 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.

## ► To connect to the VCB

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

<b>User Name</b>	VCBAdmin
<b>Password</b>	evc123\$

## 10.1 Descriptions of SSH Commands

<b>Command</b>	<b>appupgrade</b>
<b>Syntax</b>	appupgrade <path>
<b>Description</b>	Upgrade to a new version of the VCB. <b>Path</b> - location of the install file. For example: <b>appupgrade vcb/install.exe</b>

## 10 SSH Commands

<b>Command</b>	<b>changeservicestartmode</b>
<b>Syntax</b>	changeservicestartmode <Service Name><Mode>
<b>Description</b>	Change the specified service's starting mode.
<b>Parameters</b>	<input type="checkbox"/> <b>Automatic</b> <input type="checkbox"/> <b>Manual</b> <input type="checkbox"/> <b>Disabled</b>
	For example:
	<b>TermService</b> , 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.
	<pre>changeservicestartmode TermService Manual</pre>
<b>Command</b>	<b>clearevents</b>
<b>Syntax</b>	
<b>Description</b>	Delete all entries from the application, security, and system event log.
<b>Command</b>	<b>exec</b>
<b>Syntax</b>	exec <command>
<b>Description</b>	Execute the specified shell command. Only VCBSupport-level users are allowed to execute this command.
<b>Command</b>	<b>getevents</b>
<b>Syntax</b>	getevents <substring>
<b>Description</b>	Display application, security, and system event log. If a substring is specified, only events related to the substring will be listed.

<b>Command</b>	<b>getparam</b>
<b>Syntax</b>	<code>getparam &lt;param&gt;</code>
<b>Description</b>	Retrieve the specified parameter.
<b>Parameters</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>appver</b> - Display the VCB/MXM application version.</li> <li><input type="checkbox"/> <b>dhcp &lt;0-3&gt;</b> - Display DHCP-defined IP configuration of the specified NIC, and if it's enabled or disabled.</li> <li><input type="checkbox"/> <b>hwserial</b> - The first NIC's MAC address.</li> <li><input type="checkbox"/> <b>machinename</b> - The name of the node.</li> <li><input type="checkbox"/> <b>sshver</b> - Display the SSH Server version.</li> <li><input type="checkbox"/> <b>time</b> - Display the current system date and time.</li> </ul>

<b>Command</b>	<b>getvcbadminparam</b>
<b>Syntax</b>	<code>getvcbadminparam &lt;/&gt; &lt;param&gt;</code> .
<b>Description</b>	Retrieve the specified VCB Admin parameter.
<b>Parameters</b>	<p>Name and password of the administrator.</p> <p>For example:</p> <p><b>getvcbadminparam 1 password 1234</b></p>

<b>Command</b>	<b>getvcbridgeparam</b>
<b>Syntax</b>	<code>getvcbridgeparam &lt;param&gt;</code>
<b>Description</b>	<p>Retrieve the specified VCB parameter.</p> <p>To display a list of parameters, type only the command and press &lt;Enter&gt;.</p>

<b>Command</b>	<b>getvcbsessionparam</b>
<b>Syntax</b>	<code>getvcbsessionparam &lt;service number&gt; &lt;param&gt;</code> .
<b>Description</b>	<p>Retrieve the specified VCB Session parameter.</p> <p>To display a list of parameters, type only the command and press &lt;Enter&gt;.</p>

## 10 SSH Commands

<b>Command</b>	<b>healthcheck</b>
<b>Syntax</b>	
<b>Description</b>	Displays system information about the VCB's host computer, such as CPU usage, virtual memory usage.
<b>Command</b>	<b>help</b>
<b>Syntax</b>	
<b>Description</b>	Lists all SSH commands and their possible syntaxes.
<b>Command</b>	<b>killprocess</b>
<b>Syntax</b>	killprocess < <i>process identity</i> >
<b>Description</b>	Aborts the specified process.
<b>Command</b>	<b>listip</b>
<b>Syntax</b>	listip <0-3>
<b>Description</b>	Displays the IP address of the specified NIC.
<b>Command</b>	<b>ping</b>
<b>Syntax</b>	ping < <i>hostname or IP address</i> >
<b>Description</b>	Check if a connection to the specified computer is online.
<b>Command</b>	<b>processes</b>
<b>Syntax</b>	processes <substring>
<b>Description</b>	Display a list of processes. If a substring is specified, only processes containing the substring will be listed.
<b>Command</b>	<b>restart</b>
<b>Syntax</b>	
<b>Description</b>	Restart the VCB unit.
<b>Command</b>	<b>restartservice</b>
<b>Syntax</b>	restartservice < <i>Service Name</i> >
<b>Description</b>	Restarts the specified service.

<b>Command</b>	<b>services</b>
<b>Syntax</b>	services <service substring>
<b>Description</b>	Lists the services that start with the substring and displays their status.  <b>services VCON</b> will list only VCON services. For example, <ul style="list-style-type: none"> <li>• VCON VCB AGENT_1</li> </ul>
<b>Command</b>	<b>setgkaddress</b>
<b>Syntax</b>	setgkaddress <IP address>
<b>Description</b>	Define an IP address to the associated MXM.
<b>Command</b>	<b>setmcpuaddress</b>
<b>Syntax</b>	setmcpuaddress <IP address>
<b>Description</b>	Define an IP address to this VCB.
<b>Command</b>	<b>setparam</b>
<b>Syntax</b>	setparam <param>
<b>Description</b>	Define the specified parameter.
<b>Parameters</b>	<input type="checkbox"/> <b>dhcp</b> <0-3> - Enable DHCP to define the IP configuration of the specified NIC. <input type="checkbox"/> <b>ipstatic</b> <0-3><IP address><Subnet><Gateway> - Define a static IP configuration of the specified NIC. <input type="checkbox"/> <b>machinename</b> - Define the name of the node. <input type="checkbox"/> <b>time</b> - Set the current system date and time.
<b>Command</b>	<b>setpassword</b>
<b>Syntax</b>	setpassword <user name>
<b>Description</b>	Defines the user password. If a user name is specified, the password change applies to that user name only.

## 10 SSH Commands

<b>Command</b>	<b>setvcadminparam</b>
<b>Syntax</b>	setvcadminparam <number> <param>.
<b>Description</b>	Define the specified VCB Admin parameter.
<b>Parameters</b>	Name and password of the administrator.
<b>Command</b>	<b>setvcbridgeparam</b>
<b>Syntax</b>	setvcbridgeparam <param>
<b>Description</b>	Define the specified VCB parameter.
<b>Command</b>	<b>setvcsessionparam</b>
<b>Syntax</b>	setvcsessionparam <service number> <param> <value>.
<b>Description</b>	Define the specified VCB Session parameter.
<b>Command</b>	<b>shutdown</b>
<b>Syntax</b>	
<b>Description</b>	Shut down the VCB unit and turn its power off.
<b>Command</b>	<b>startservice</b>
<b>Syntax</b>	startservice <Service Name>
<b>Description</b>	Starts the specified service.
<b>Command</b>	<b>stop service</b>
<b>Syntax</b>	stopservice <Service Name>
<b>Description</b>	Stops the specified service.
<b>Command</b>	<b>upgrade</b>
<b>Syntax</b>	
<b>Description</b>	Upgrade to a new version of the SSH Server.