

APPLICATION NOTES

PRODUCTS SUPPORTED:

ClearOne CONVERGE[®] Pro VH20 and Cisco[®] Unified Communications Manager (CallManager)

CLEARONE DOCUMENT NTS-0008-001 (REVISION 1.1) April, 2013 CONFIGURING THE CONVERGE PRO VH20 WITH A CISCO CALLMANAGER SYSTEM

Overview

This application note defines the required configuration parameters for configuring the CONVERGE Pro VH20 to register with a Cisco CallManager (CCM). It identifies the necessary information needed to correctly configure a CONVERGE Pro VH20 to register and operate on CCM. The examples used in this document are from CCM 8.6 and CONVERGE versions 3.0.13.3. and 4.X.

Cisco CallManager Setup

Create a Third Party SIP Device (Basic) endpoint for the CONVERGE Pro VH20 with an assigned User and Extension in CCM. Ensure the User has Digest Credentials set. If needed refer to Cisco documentation on how to set up this type of extension. Cisco has a very helpful checklist here:

http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/6_1_1/ccmcfg/611-cmcfg/b09sip3p.pdf

CONVERGE Pro VH20 SIP Settings Using CONVERGE Pro VH20 CCM Information

There are three pieces of user information you used in the Cisco SIP endpoint configuration to setup the CONVERGE Pro VH20 that will also be entered into the CONVERGE Pro VH20 SIP Settings to register it to the CCM. This information is created in the CCM End User Configuration screen.

- 1. User ID and Digest Credentials as entered in the User Information Section. (See Figure 1)
- 2. Primary Extension number as entered in the Directory Number Associations Section. (See Figure 2)
- 3. **Proxy IP address** or **Fully Qualified Domain Name** (FQDN). (Typically this is the address used to log in to the CCM).

User Information				
NOTE: The add and delete function are disabled because the user directory is sync with LDAP.				
(i.e. The Enable Synchronizatio	on From LDAP Server flag on the LDAP System Configuration is che	cked).		
	· · ·	2		
LDAP Sync Status	Active			
User ID*	VH20			
Fassword	••••••	Edit Credential		
Confirm Password	,			
Commin Password	•••••			
PIN	•••••	Edit Credential		
Confirm PIN				
Committee	••••••			
Last name*	SIP			
Middle name				
First name	VH20			
Telephone Number				
Mail ID	VH20@test.local			
Manager User ID				
Department				
User Locale	English, United States			
Associated PC				
Digest Credentials	••••••			
Confirm Digest Credentials	••••••••••••			

Figure 1. User ID and Digest Credentials

Directory Numbe	r Associations		
Primary Extension	1005 in Everyone	•	

Figure 2. Directory Number Associations

Log into the CONVERGE Pro VH20 with CONVERGE Console. For information on how to use the CONVERGE Console and the VH20, consult the CONVERGE Pro manual found at: http://www.clearone.com/resources#professional_audio.

In the VH20 SIP Proxy tab (See Figure 3):

1. Enter the **Local Phone Number** in the dialog box using the Primary Extension from the CCM configuration.

Local Phone Number = Primary Extension from CCM

2. Enter the **Authorization User** and **Authorization Password** in the SIP Credentials dialog boxes using the User ID and Digest Credentials from the CCM configuration.

Authorization User = User ID from CCM

Authorization Password = Digest Credentials from CCM

- 3. Set Proxy type:
 - On CONVERGE 4.X systems, set the SIP Proxy type drop-down to Cisco. (See CONVERGE 4.X Settings in Figure 3.)
 - » If the proxy address is an IP address, set **SIP Domain** drop down to **Proxy** and enter the IP address.
 - » If the proxy address is a Domain name, set to **Domain** and enter the **FQDN** of the CCM into the SIP.
 - For CONVERGE 3.X systems, using the application of your choice, manually set up a telnet connection to the VH20 and then send the command "#.. proxytype 1" to setup the VH20 to work with CCM.
 - » If the proxy address is an IP address, set **SIP Domain** drop down to **Proxy** and enter the IP address.
 - » If the proxy address is a Domain name, set to **Domain** and enter the **FQDN** of the CCM into the SIP.

Converge VH20 Unit Properties - Device ID 0	Converge VH20 Unit Properties - Device ID 0
General Comm SIP	General Comm SIP
Proxy Timers Network Audio Stream Dial Plan	Proxy Timers Network Audio Stream Dial Plan
Phone Number Local Phone Number: 1005 Display Name (Hostname): CONVERGEVH20-0	Proxy Type: Cisco
Proxy 1 Proxy 2	Display Name (Hostname): CONVERGEVH20-90
SIP Authentication Authorization User: VH20 Authorization Password: Clear0ne	Proxy 1 Proxy 2 SIP Authentication Authorization User: VH20 Authorization Password: Clear0ne
SIP Proxy Registration SIP Domain: Proxy Proxy IP Address/URL: 192.168.1.12 Proxy Port: 5060	✓ SIP Proxy Registration SIP Domain: Proxy Proxy IP Address/URL: 192.168.1.12
Voltbound Proxy Proxy IP Address/URL: 192.168.1.12 Proxy Port: 5060	Proxy Port: 5060 Proxy Proxy IP Address/URL: 192.168.1.12 Proxy Port: 5060 Proxy Proxy Port: 5060 Proxy Port: 5060 Proxy Port: 5060 Proxy Proxy Port: 5060 Proxy Proxy Port: 5060 Proxy Proxy Port: 5060 Proxy Proxy Proxy Proxy Proxy Port: 5060 Proxy Prox Proxy Pro
SIP Transport UDP Listen Port: 5060 C TLS Listen Port: 5061 C TLS Listen Port: 5061 C A Certs Private Key: Browse Local Cert: Browse	SIP Transport O UDP Listen Port: 5060 TLS Listen Port: 5061 CA Certs Private Key: Browse Local Cert: Browse
Export Certificates	Export Certificates
SIP Proxy 1 Registration: Disabled OK Cancel	SIP Proxy 1 Registration: Registered OK Cancel

CONVERGE 3.X Settings

CONVERGE 4.X Settings

Figure 3. SIP Settings

In the **Dial Plan** tab, confirm that extension dialing is set correctly for the extension length setup in the CallManager. If the extension length in CallManager is "4" then setting **Extension Dialing** to "4" will dial any "4" digit extension entered (See Figure 4). Select "**OK**" to confirm changes

Converge VH20 Unit Properties - Device ID 0]
Converge VH20 Unit Properties - Device ID 0 ▼ General Comm SIP Proxy Timers Network Audio Stream Dial Plan ♥ Dial Plan ♥ Ewv ● Frowse ● ● ● Manual Configuratio ● ● ● ● ● Dial Plan ● ● ● ● ● Dial Plan Domain Name/IP Address: 192.168.1.12 ● ● Manual Send Key: # ▼ ●	
Image: Sip Proxy 1 Registration: Registered Image: Sip Proxy 2 Registration: Disabled OK Cancel	

Figure 4. Dial Plan Settings

VoIP Worksheet

The ClearOne VoIP/SIP Network Settings Worksheet can be downloaded from here:

http://www.clearone.com/uploads/resource/voip worksheet.pdf

Have the IT representative that will be provisioning the SIP extension fill out the Basic Settings section. The necessary elements are: Phone number, Authorization User/Password and Proxy/Outbound Proxy IP or FQDN. A completed form would be similar to this:

Phone Number/Extension	1005
Authorization User	VH20
Authorization Password	ClearOne
Proxy IP Address/FDQN	192.168.1.12
Outbound Proxy IP/FDQN	192.168.1.12

Port numbers and SIP Transport can usually be left as default.

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