ClearOne.

# APPLICATION NOTE

### **CONVERGE® USB**

PRODUCTS SUPPORTED: CONVERGE<sup>®</sup> Pro models: 880, 880T, 880TA, 840T, 8i, TH20, VH20, SR1212, SR1212A

CLEARONE DOCUMENT NTS-0025-001 (REVISION 1.0) July, 2013 USING THE CONVERGE USB AS AN AUDIO SOURCE/DESTINATION AND AS AN EXPANSION BUS EXTENDER FOR A CONVERGE PRO SYSTEM

## **OVERVIEW**

This document explains how to connect and use a CONVERGE USB as both an audio source/destination to/from a CONVERGE Pro audio system or as an E-bus extender.

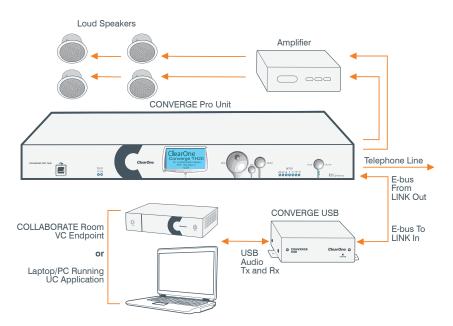
As a USB interface, the CONVERGE USB can receive USB audio signals from any USB connected device (laptop, COLLABORATE<sup>®</sup> Video Conferencing Room system, etc.) and place them on selected channels on the E-bus. Conversely, audio signals on selected E-bus channels can be directed through the CONVERGE USB to the connected USB device.

The CONVERGE USB also can serve as a E-bus (sometimes called G-Link expansion bus) extender. The CONVERGE USB can, for example, be up to 200 feet from the stack, then re-send the signal for up to another 200 feet to the next E-bus component.

**Note:** The CONVERGE USB can only be used with CONVERGE Pro/SR systems operating at version 4.X or higher software and firmware.

#### VIDEO CONFERENCING AND UNIFIED COMMUNICATIONS INTERFACE APPLICATION

The following diagram shows a CONVERGE Pro connected using a CONVERGE USB peripheral to a USB-enabled video conferencing system such as the ClearOne COLLABORATE<sup>®</sup> VC Room system. The CONVERGE USB plug-and-play peripheral connects desktops or laptops running popular UC applications such as such as Skype<sup>™</sup>, Microsoft<sup>®</sup> Lync, Google Talk<sup>™</sup>, etc. to the CONVERGE Pro to achieve professional audio quality in a group room.



#### **USB Interface Link Channel Selection**

Set the CONVERGE USB unit for both Transmit and Receive channels using jumpers across a terminal block that is inserted into the 6-pin Control/Status connector at the back of the CONVERGE USB unit. The channels selected are indicated in the figure below.



#### **Link Channel Routing**

The CONVERGE USB does not appear as a device in the site but you still must use the CONVERGE Console matrix for the site to route the Tx and Rx audio channels for the CONVERGE USB channels selected by the jumpers.

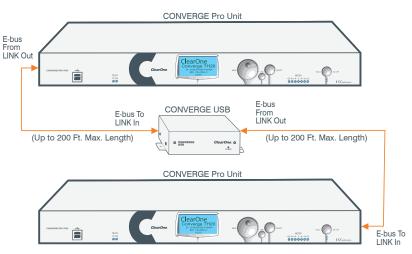
#### **Audio Control**

Audio control for the audio interfaced to the CONVERGE Pro system is applied in the laptop or PC running the UC application or by COLLABORATE VC Room.

In the UC client or COLLABORATE VC Room, set the CONVERGE USB as the microphone and speaker audio devices.

#### **E-BUS EXTENDER APPLICATION**

The following diagram shows a CONVERGE Pro connected using a CONVERGE USB as an E-bus extender to another CONVERGE Pro.



**Note:** Link Channel Selection, Routing and Audio Control are NOT required when the CONVERGE USB is used only as an E-bus extender with no USB connection.

