

# TECH NOTE

## **PRODUCTS AFFECTED:**

CONVERGE<sup>®</sup> Pro 2 DSP mixers, CONVERGE Huddle, UNITE<sup>®</sup> Cameras, BMA CT, Ceiling Mic Array Analog X, Datapoint

CLEARONE DOCUMENT NTS-0098-001 (REVISION 1.1) November 2019 INTEGRATING CLEARONE PRODUCTS WITH MICROSOFT TEAMS

## **OVERVIEW**

Explains integration of ClearOne products with Microsoft Teams

### **INTEGRATION**

Microsoft Teams is a PC-based media collaboration platform that can be used in a wide variety of meeting spaces from huddle rooms to large conference rooms. Whatever the configuration, ClearOne products can be easily added to the system by simply connecting a USB cable between a computer running the Microsoft Teams application and ClearOne conferencing system components. In Figure 1 below, the CONVERGE® Pro 2 48VT is integrated into the Teams system to add expanded audio conferencing functions to the meeting space. In Figure 1, the device running Microsoft Teams is a NUC small form factor computer.

During initial system setup, the A/V integrator should have a USB hub, keyboard, and mouse to place the MS Teams user interface in the correct location, and to set up various Windows preferences and settings. After the system has been set up and configured, a touch panel USB monitor, like the Mimo Monitors UM-1080C-G, can be used to control the system and make calls: https://www.mimomonitors.com/products/mimo-vue-hd-display-um-1080c-usb-capacitive-touch?\_pos=1&\_sid=a4c18e446&\_ss=r

The USB touch panel monitor acts as a second display for the computer. The Microsoft Teams user interface is displayed on the touch panel monitor to allow easy control of the Microsoft Teams user interface.

When the Mimo monitor is connected to a PC with Windows 10 operating system for the first time Windows will automatically install the necessary drivers for the touch panel. It will take a moment for the process to complete and then the Display Settings screen will appear.



# Steps to configure Windows:

1. In the Multiple Displays section, confirm that Extend desktop to this display is shown.

		_		X
Dicplay				
Display				
1920 × 1080 (Recommended) $\sim$				
Orientation				
Landscape $\checkmark$				
Multiple displays	3			
Multiple displays				
Multiple displays				
Extend desktop to this display				
Make this my main display				
Connect to a wireless display				
Advanced display settings				
Craphics settings				
Graphics settings				
Sleep better				
Night light can help you get to sleep by displaying warmer cold	ors at nio	ht. Sele	ct Niah	t
light settings to set things up.				
Get help setting it up				



- 2. Next click on the Windows Start button and search for Control Panel
- 3. Select Tablet PC Settings

🔝 All Control Panel Items - 🗆 🗙					
← → ✓ ↑ 🖾 > Control Panel > All Control Panel Items > ✓ ♂					,p
Adjust your computer's settings				View by: Small icons 🔻	
Administrative Tools	E AutoPlay	🚯 Backup and Restore (Windows 7)	🏘 BitLocker Drive Encryption		
💶 Color Management	Credential Manager	😬 Date and Time	Default Programs		
😂 Dell Audio	Power Manager Lite	📩 Device Manager	R Devices and Printers		
Ease of Access Center	File Explorer Options	lie History	Flash Player (32-bit)		
🔀 Fonts	🔒 Indexing Options	🖉 Infrared	📴 Intel® Graphics Settings		
🛜 Intel® PROSet/Wireless Tools	😥 Intel® Rapid Storage Technology	😒 Internet Options	🚮 Java (32-bit)		
Keyboard	LiveUpdate (32-bit)	(a) Mail (32-bit)	Mouse		
Network and Sharing Center	🛃 NVIDIA Control Panel	Pen and Touch	Phone and Modem		
Power Options	Programs and Features	Recovery	🔗 Region		
1 RemoteApp and Desktop Connections	r Security and Maintenance	N Sound	Speech Recognition		
Storage Spaces	Sync Center	🔜 System	Tablet PC Settings		
Taskbar and Navigation	Troubleshooting	& User Accounts	Windows Defender Firewall		
🔄 Windows Mobility Center	🏪 Windows To Go	Work Folders			

4. Select Setup. A white screen will appear on all monitors. Follow the instructions on screen to setup your monitor as a touch device.

Once these steps have been completed return to Display settings and switch from Extended Display to Duplicate Displays for best performance. Setup should now be complete.

If the touch panel monitor is to be connected to a PC that is located farther from the monitor than a normal USB cable will reach, ClearOne offers 10 meter and 30 meter USB extension cables that can be connected between the components. The Mimo Touch Panel has 2 USB connections that allow for an extra power source to be added to ensure proper functioning of the touch panel monitor.

There are 2 options for providing additional power to the display.



Option 1: Use the Y adapter on the Mimo Monitor cable to add a USB wall wart to supply power to the monitor as shown below:



Option 2: Attach one end of the USB A to USB micro A cable supplied with the ClearOne 10 meter and 30 meter USB extender cables to the slot on the side of the main USB A connector, and connect the other end of that cable to a standard USB wall wart power supply.



**ClearOne** 



Figure 1. A wiring diagram showing a way to integrate ClearOne conferencing products with Microsoft Teams. The Microsoft Teams application runs on the NUC computer. Audio and video processing is provided by ClearOne devices that are connected to the NUC via USB.

The ClearOne DataPoint USB to HDMI interface allows a user to share laptop content with the Microsoft Teams meeting.

http://www.clearone.com/sites/default/files/COLLABORATE\_DataPointHD\_DS.pdf

ClearOne also offers a line of video cameras with a variety of features and capabilities that integrate with the Teams system for video conferencing. Figure 1 shows a ClearOne UNITE 150 PTZ camera. http://www.clearone.com/ professional-cameras

In addition, the CONVERGE Pro 2 48VT shown in Figure 1 allows a user to bridge in audio from a caller on a VoIP or Telco line into a Teams call by installing and configuring the ClearOne Windows Dialer to run on the NUC computer. Note that in order to do this, the 48VT and the computer running Microsoft Teams must both be on the same VLAN.

![](_page_5_Picture_0.jpeg)

All ClearOne conferencing hardware components are easily connected to a PC running Microsoft Teams by means of USB ports, which keeps cabling simple.

Figure 2 shows the use of a ClearOne Ceiling Microphone Array Analog X instead of a BMA CT as the microphone for the system. Other alternative microphone options include:

wired table microphones (http://www.clearone.com/other-microphones-1)

and/or wireless microphones (http://www.clearone.com/dialog-20)

![](_page_5_Figure_5.jpeg)

Application Diagram - NUC with CMA Analog X

V

Figure 2. A wiring diagram showing connection of ClearOne audio and video peripherals to a NUC computer running Microsoft Teams. In this drawing, the microphone is a Ceiling Microphone Array Analog X.

![](_page_6_Picture_0.jpeg)

In Figure 3, a Versa Pro CT solution provides the DSP mixer and BMA CTH microphone functionality and a UNITE 50 4K provides video input.

![](_page_6_Figure_2.jpeg)

Figure 3. A wiring diagram showing connection of ClearOne audio and video peripherals to a NUC computer running Microsoft Teams.

When adding a Vera Pro CT, be sure to check Sound Settings in Windows to ensure that the Huddle is set as the default audio device. Microsoft Teams will then use these default Settings. See Figure 4

# ClearOne.

	-	×
Sound		
Choose your output device		
Speakers (ClearOne Converge Pro 🗸		
Some apps are using custom output settings. You can customize these in advanced sound settings.		
Device properties		
Volume		
⊲, 30		
▲ Troubleshoot		
Manage sound devices		
Input		
Choose your input device		
ConvergePro 2 USB Audio Input ( \vee		
Some apps are using custom input settings. You can customize these in advanced sound settings.		
Device properties		
Test your microphone		

Figure 4. Windows Sound Settings

Another option for integrating ClearOne Converge Pro 2 or Converge Huddle with Microsoft Teams is the HP Elite Slice G2

https://www8.hp.com/h20195/V2/GetPDF.aspx/4aa7-3688eee

This system is described as audio ready and only requires a USB connection for the Converge Pro 2 or Converge Huddle to add room conferencing to a Microsoft Teams collaboration system.

The HP Elite Slice G2 has a simple setup wizard that allows you to select the Converge Pro 2 or Converge Huddle as the default audio system during initial configuration.

You can also use one of ClearOne's Unite video cameras with the system. During initial setup it is not necessary to select the Unite camera as there is an issue with the HP system that will prevent it from being used when selected. If the selection is left blank the Unite camera will be used by default.

Setup		Software build 4.2.4.0 Provisioning version 8 Windows build 10.0.17134.648
User Account Features	Auto Screen Sharing Your screen will automatically be shared in the online meeting when you plug in your device.	Microphone for Conferencing ConvergePro 2 USB Audio Input (ClearOne Converge ) Speaker for Conferencing Speakers (ClearOne Converge Pro 2 48V USB Audio)
Theming Windows Settings	Hide Meeting Names Hides meeting titles on the room calendar.	Default Speaker Speakers (ClearOne Converge Pro 2 48V US8 Audio)
	Dual Monitor Mode The meeting will display across two monitors. on Swap Screens	Send Logs with Feedback Logs and feedback will be sent to this email address.
Reset Device		C off Save and Exit Exit without saving

### **CLEARONE LOCATIONS**

#### HEADQUARTERS:

Salt Lake City, UT USA 5225 Wiley Post Way Suite 500 Salt Lake City, UT 84116

Tel: 801.975.7200 Toll Free: 800.945.7730 Fax: 801.977.0087 e-mail: sales@clearone.com EMEA Tel: 44 (0) 1189.036.053 e-mail: global@clearone.com APAC Tel: 852.3590.4526 e-mail: global@clearone.com LATAM Tel: 801.974.3621 e-mail: global@clearone.com MIDDLE EAST Tel: 852.3590.4526 e-mail: global@clearone.com TechSales Tel: 800.707.2103 e-mail: techsales@clearone.com

Technical Support Tel: 800.283.5936 e-mail: tech.support@clearone.coM

© 2019 ClearOne. All rights reserved. Other product names may be trademarks of their respective owners. Specifications subject to change without notice. NTS-0098-001 Rev. 1.0 - November 2019.