Simple Conference Room



Overview

Pacificom is a mid-sized technology company in southern California. They are expanding their facilities and adding a multimedia conference room. The conference room will seat up to 10 people. They will need the ability to view presentations from the room's dedicated PC, the presenter's laptop, or a Blu-ray player. They would also like the ability to watch the national news and financial networks.

Room Needs Assessment

Staffing	The AV system needs to be able to be operated with little or no training. The staff is not AV savvy and relies on their service agreement to service and maintain the AV system. Additionally, the conference room will be used by multiple clients and vendors who will not be trained on how to use the AV system. It MUST be easy to operate.
Source Inputs	There is one PC in the system and two input jacks for laptops (one at either end of the conference room table). There is one Blu-ray player that will handle Blu-ray and standard DVDs. There is one HDTV Tuner.
Displays	There are two 1080p High Definition flat panel displays. The displays will be video only. All audio will play through overhead speakers.
Control System	There needs to be a central control system that uses a touchscreen controller to control the video sources, source selection, audio levels, and video displays. The touchscreen must be simple to operate and easy to understand.
Network	The office has a 100BaseT Ethernet network. Network access needs to be provided for the system PC and the laptop inputs.
Documentation	The dealer needs to supply an operations manual for the remote control system and train the office manager on the operations of the AV system.
Functional Requirements	The users of the AV system must be able to easily power up the AV system, send sources to the display, control the AV sources and volume levels, and shut down the system. The system must automatically shut down after a period of inactivity. Also, they would like to be able to show unique content on each display.

System Design Solution

Control System Configuration

This system requires the basic capabilities of Global Configurator 3, including: Certified Drivers, User Defined Serial Commands, Monitors.

GUI Configurator will be used for the TouchLink Touchpanel design.

Control System

The AV system will be controlled by an **IPL 250** IP Link control processor, and a **TLP 1000TV** Tabletop TouchLink Touchpanel. The IPL 250 will control the HDTV tuner and Blu-ray player via IR, both LCD displays and the volume control module via RS-232, and the switcher via Ethernet.

Displays

The system will feature two 42-inch 1080p high definition LCD displays.

Sources

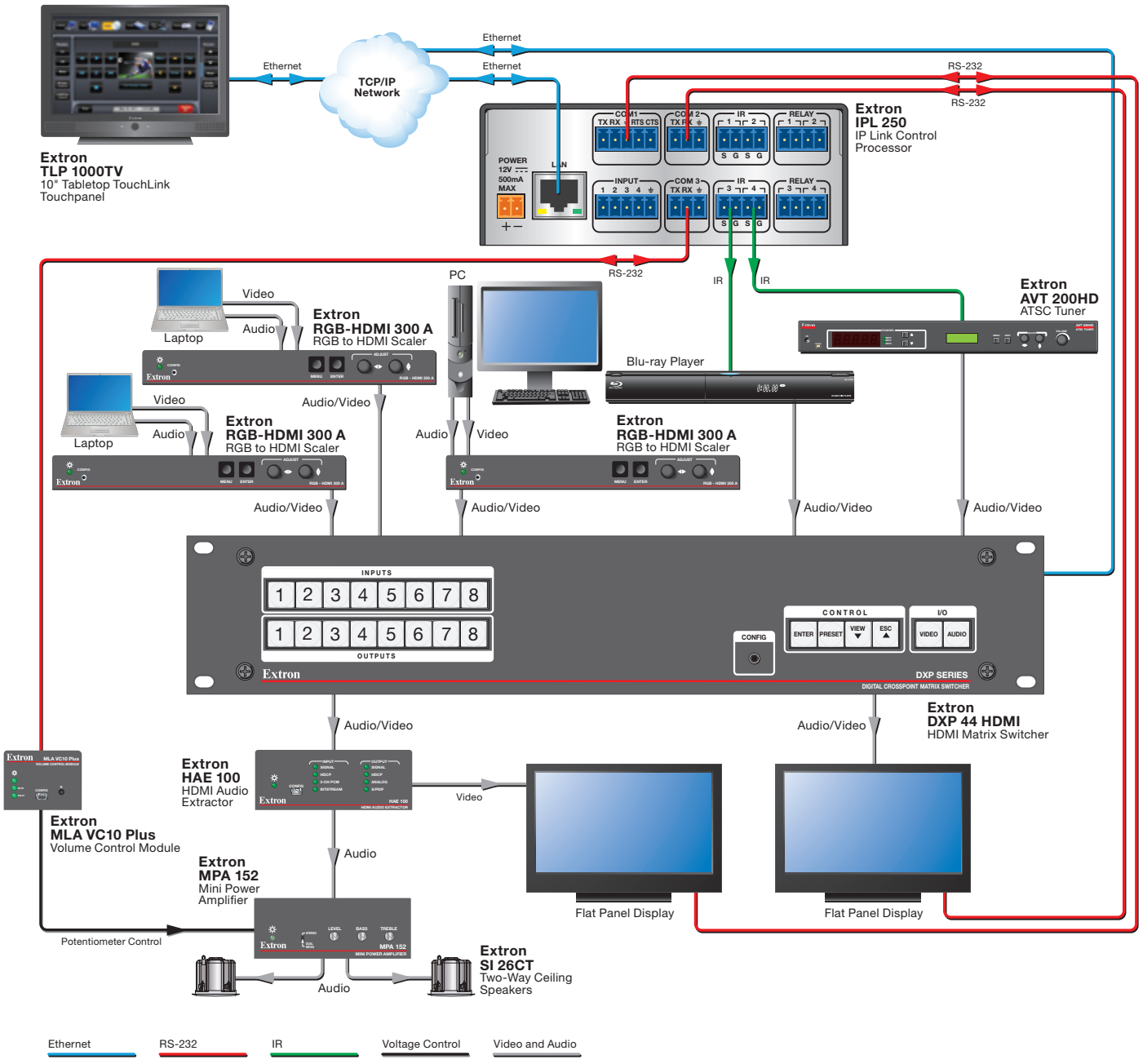
The system has a resident PC as well inputs for two laptops and a Blu-ray player. Additionally, the system has an Extron **AVT 200HD** HDTV Tuner. Routing will be handled by the matrix noted below.

Switching System

The system will feature an Extron **DXP 44 HDMI** Matrix Switcher that will handle all of the audio and video routing in the system.

Audio

The matrix noted earlier will have a designated output for audio, which will then be fed to an Extron **HAE 100** HDMI Audio De-Embedder whose output will then go to an Extron **MPA 401** Mini Power Amplifier and two Extron **SI26CT** Ceiling Speakers.


Extron
TLP 1000TV
10" Tabletop TouchLink
Touchpanel
Ethernet
TCP/IP
Network
Ethernet
Ethernet
RS-232
RS-232
Extron
IPL 250
IP Link Control
Processor
POWER
12V
500mA
MAX
LAN
COM 1
COM 2
COM 3
INPUT
IR
RELAY
RS-232
IR
IR
Extron
AVT 200HD
ATSC Tuner
PC
Blu-ray Player
Laptop
Video
Audio
Extron
RGB-HDMI 300 A
RGB to HDMI Scaler
Laptop
Video
Audio
Extron
RGB-HDMI 300 A
RGB to HDMI Scaler
Audio
Video
Extron
RGB-HDMI 300 A
RGB to HDMI Scaler
Audio/Video
Audio/Video
Audio/Video
Audio/Video
INPUTS
1 2 3 4 5 6 7 8
OUTPUTS
1 2 3 4 5 6 7 8
CONTROL
ENTER
PRESET
VIEW
ESC
I/O
VIDEO
AUDIO
CONFIG
Extron
DXP SERIES
DIGITAL CROSSPOINT MATRIX SWITCHER
Audio/Video
Audio/Video
Extron
DXP 44 HDMI
HDMI Matrix Switcher
Extron
MLA VC10 Plus
Volume Control Module
Extron
HAE 100
HDMI Audio
Extractor
Video
Audio
Extron
MPA 152
Mini Power
Amplifier
Potentiometer Control
Audio
Extron
SI 26CT
Two-Way Ceiling
Speakers
Flat Panel Display
Flat Panel Display
Ethernet
RS-232
IR
Voltage Control
Video and Audio