

INTERIOARCH SOLUTIONS



AUDIO VIDEO SYSTEM

SOLUTIONS

- PRO AV AND HOME AV SYSTEMS
- AV AUTOMATION AND CONTROL
- VIDEO AND AUDIO CONFERENCING
- DIGITAL SIGNAGE
- INTERACTIVE AND LEARNING TECHNOLOGIES
- PROJECTION
- LED, LCD AND PLASMA DISPLAY
- DIGITAL AUDIOVISUAL



SERVICES

- SITE ASSESSMENTS
- CONSULTANCY AND DESIGN
- PROJECT MANAGEMENT
- PREVENTATIVE MAINTENANCE
- INSTALLATION AND COMMISSIONING
- SERVICE AND SUPPORT

Pro-AV Systems-Introduction

- Professional AV systems are designed to facilitate presentations and briefings in rooms of various sizes, from small meeting rooms to large operations centers.
- These systems consist of complex assemblies that facilitate video teleconferencing and distribution of audio, video, data and more.
- Systems are fully integrated, have multiple components and provide switching and control capabilities. Every system can be customized to meet an organization's unique need

Pro-AV Systems

- **Some of the types of systems we design and build include---**
- Auditoriums
- Boardrooms, Classrooms & Training Rooms
- Conference Centers
- Digital Signage and Video Walls
- Large Screen Displays
- Training Facilities
- Network Operations Centers
- Video Conferencing

Boardroom Overview

- To provide seamless audiovisual technology .
- Ability to route any of the AV sources to the displays.
- Control solution allows all the AV devices to be controlled from a very intuitive and simple to use graphical user interface.
- The AV system needs be able to be operated with little or no training. It **MUST** be easy to operate.

Boardroom Need Assessment

- Source Inputs-- Includes AV connections at the table to support presenter's laptop, with HDMI, VGA and stereo audio. Additionally there can be one Video conferencing codec, one document camera and one blu ray player. A matrix switcher interfaces all sources with the projector and LED displays.
- Displays - There are two high definition LED displays and a high definition ultra short throw projector. All displays are required to show the same image at all times.
- A distribution amplifier is required and since the projector and displays are located at a larger distance, twisted pair transmitters and receivers will be required for that.
- Audio- All the audio from the sources is fed into a digital matrix processor for audio mixing and level control before going to the audio amplifier and speaker system.

Boardroom Need Assessment

- Control System -There needs to be a centralized, table integrated control system that uses a touchscreen controller to control the video sources, source selection, audio levels, and video displays. An added benefit would be if the controller housing offered additional connectivity for laptops, power, etc. The touchscreen must be simple to operate and easy to understand. A secondary point of control is also required, which needs to be a wall-mount touchscreen.
- Network-Network access needs to be provided for the system PC and the laptop inputs.
- Encoding and Streaming Capability-The encoder must be compatible with various source signal formats and integrated into an existing system without the need for extra AV.
- 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 audio levels, and shut down the system. The system must also automatically shut down after a user specified period of inactivity.



Preliminary AV Scheme- Boardroom

The following systems are proposed in the 40 seater board room.

- Motorized Screen and Projector
- LED Displays on side walls
- DSP, Amplifier, Wall mount/ceiling speakers
- Wired and Wireless presentation system
- Retractable Monitor for Chair person
- Audio/Video Conference
- Multi format Matrix switcher, Lighting & Touch control system
- Streaming and recording

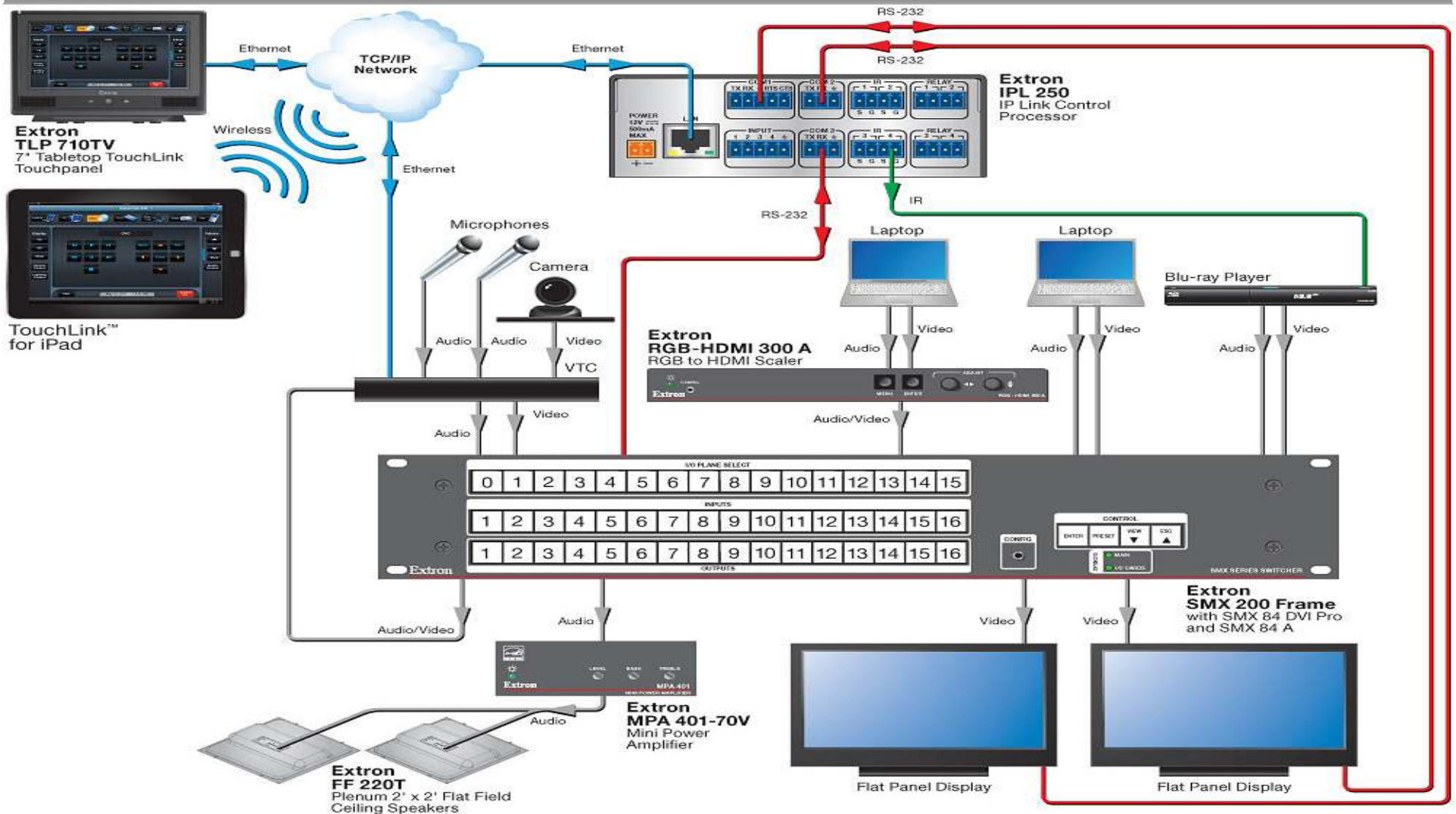


Preliminary AV Scheme Small Conference Room

The following systems are proposed in the 20 seater conference room-

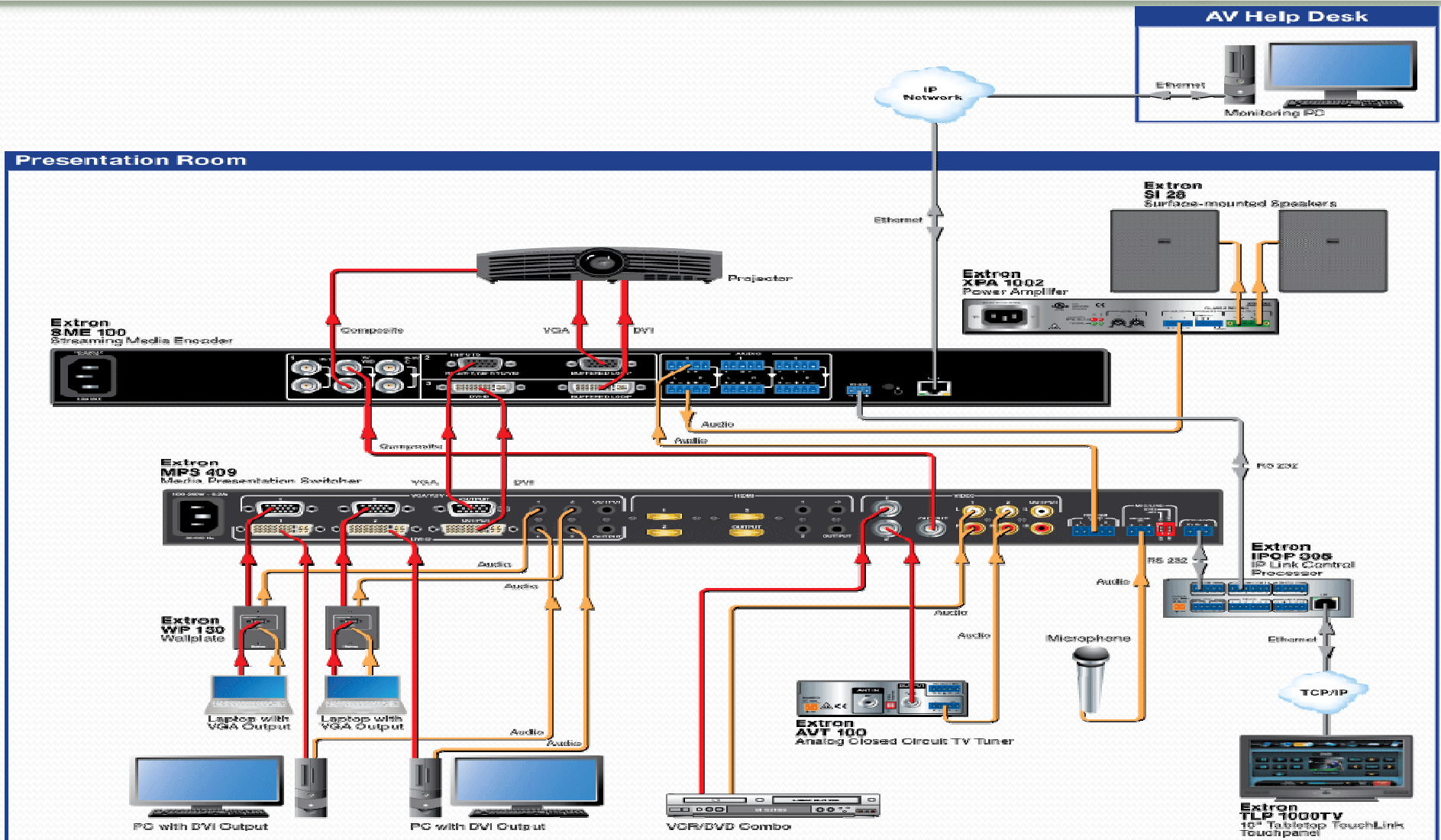
- LED Display
- DSP, Amplifier, Wall mount/ceiling speakers
- Wired and Wireless presentation system
- Audio/Video Conference
- Multi format Matrix switcher, Lighting & Touch control system
- Wireless Microphone
- Streaming and recording

Boardroom- Sample Design 1



— Ethernet
 — RS-232
 — IR
 — Voltage Control
 — Video and Audio

Boardroom- Sample Design 2



Boardroom Automation

A sort of products connected together to make boardroom smart in:

- Lighting control
- Climate (air condition) control
- Saving energy and automation
- Curtain and motorization
- Music control and audio players
- Security and safety
- Remote control

Boardroom Automation Components

- Throw Relay (switch)
- Dimmers
- Changing color using LED Driver
- Infrared Control
- Thermostat / Temperature sensors



Video Wall Overview

- Video walls or multi-display systems are often employed to conduct and monitor real-world events or experiments in which the content displayed can be a combination of real-time sources such as simulators, various data acquisition and measurement systems, remote cameras, live television broadcasts or Webcasts, and more.
- The ability to record, document, and replay such presentations can be highly valuable for analysis, training, or insurance purposes, since re-creating the event or experience is impractical or too expensive. A solution is needed that allows personnel to re-experience the visual and audible event as it originally happened.

Video Wall Need Assessment

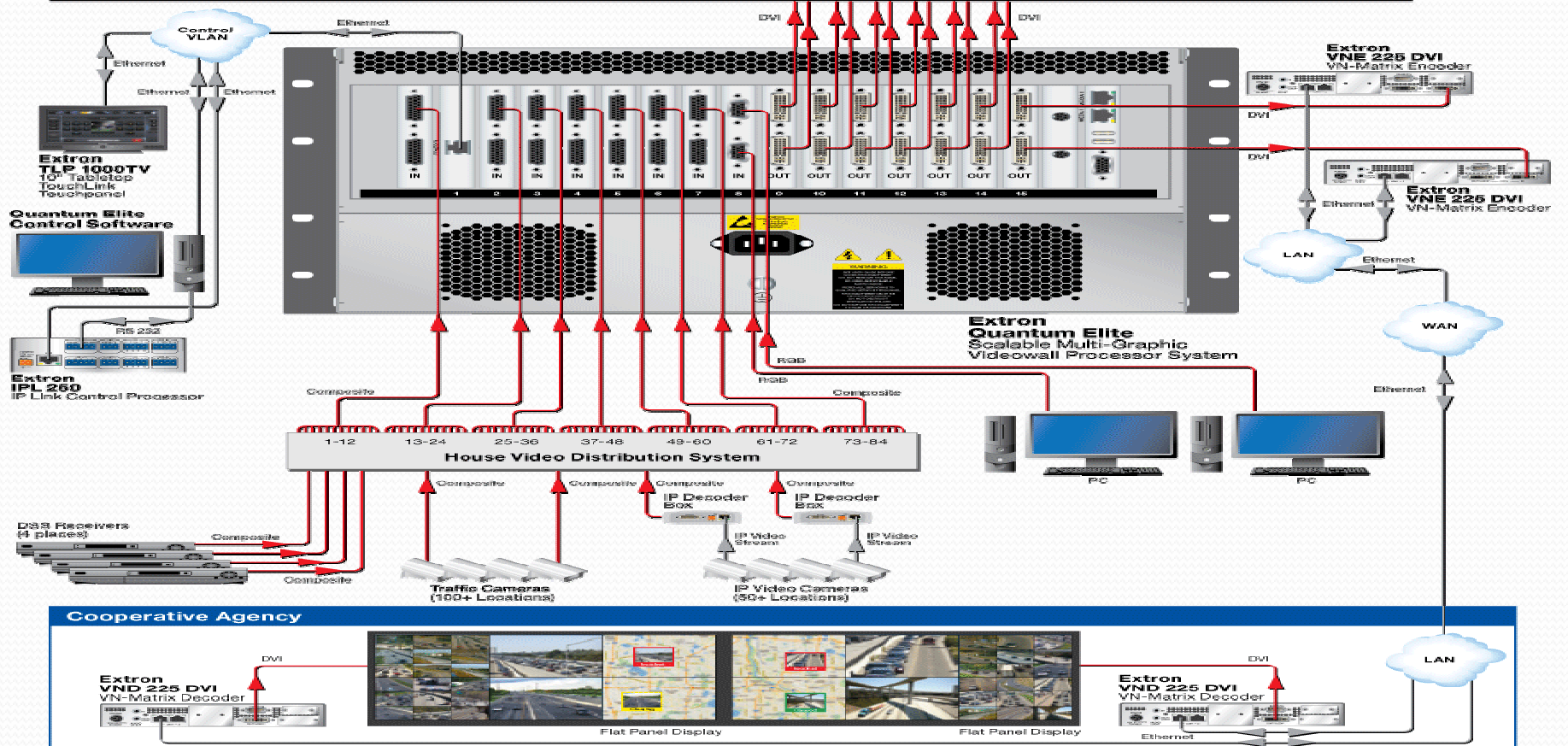
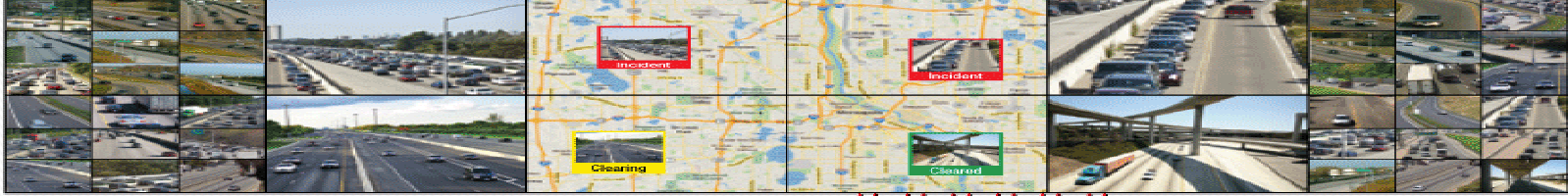
- Source Inputs– PCs outputs/Laptop outputs generate real-time visualizations, data and maps. Additionally there can be satellite receivers with outputs.
- Displays - The display system is a 3x3 video wall with 1080p native resolution per display. The video wall processor should present multiple sources on the displays in a variety of windowing arrangements.
- Presentation Control System-A touchpanel control provides a user-friendly interface to select different window and source arrangements. Simple presentation recording and playback control is also required
- Analytical Recording Controls- For analysis and examination purposes, the recording system must provide a means to efficiently move forward or backward through the content, quickly, slowly, or frame-by-frame.

Video Wall Need Assessment

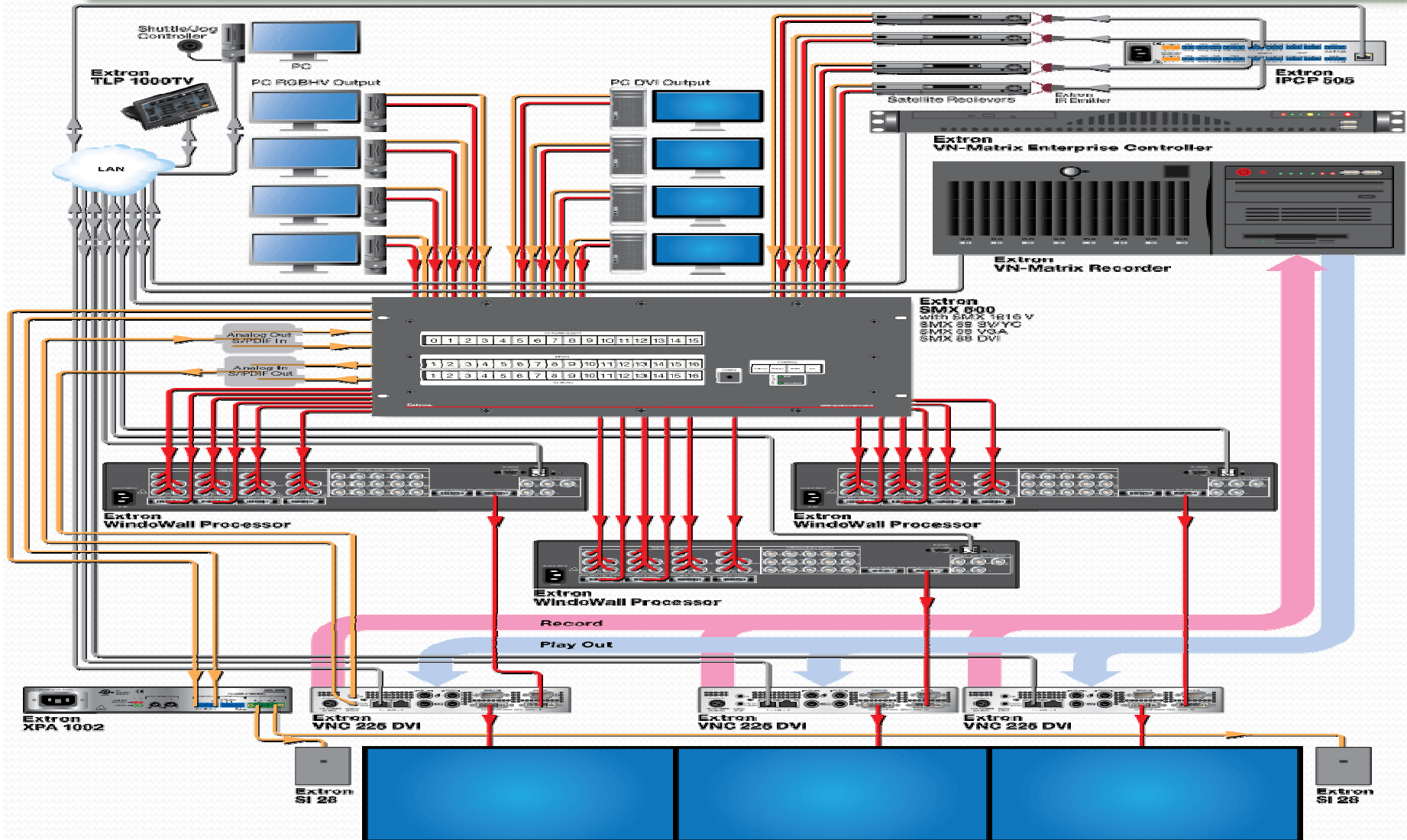
- Audio Analog stereo audio from any of the PC or satellite TV sources can be played through the audio system. Select audio sources will be recorded and played back with the videowall content.
- Network IP streaming-based recording will require a LAN with a Gigabit Ethernet switching backbone.
- Recording and Playback Requirements- The image compression for recording must encode at very high quality so that fine spatial and motion details in high resolution graphics are maintained. The recorder must be capable of playing back recordings at the original quality, and maintain tight frame synchronization between the streams to the video wall. It should support up to 30 hours of recording, and include tools for exporting the video for use in video production systems or viewing on PCs.

Video Wall System Design-1

Local Videowall



Video Wall System Design-2



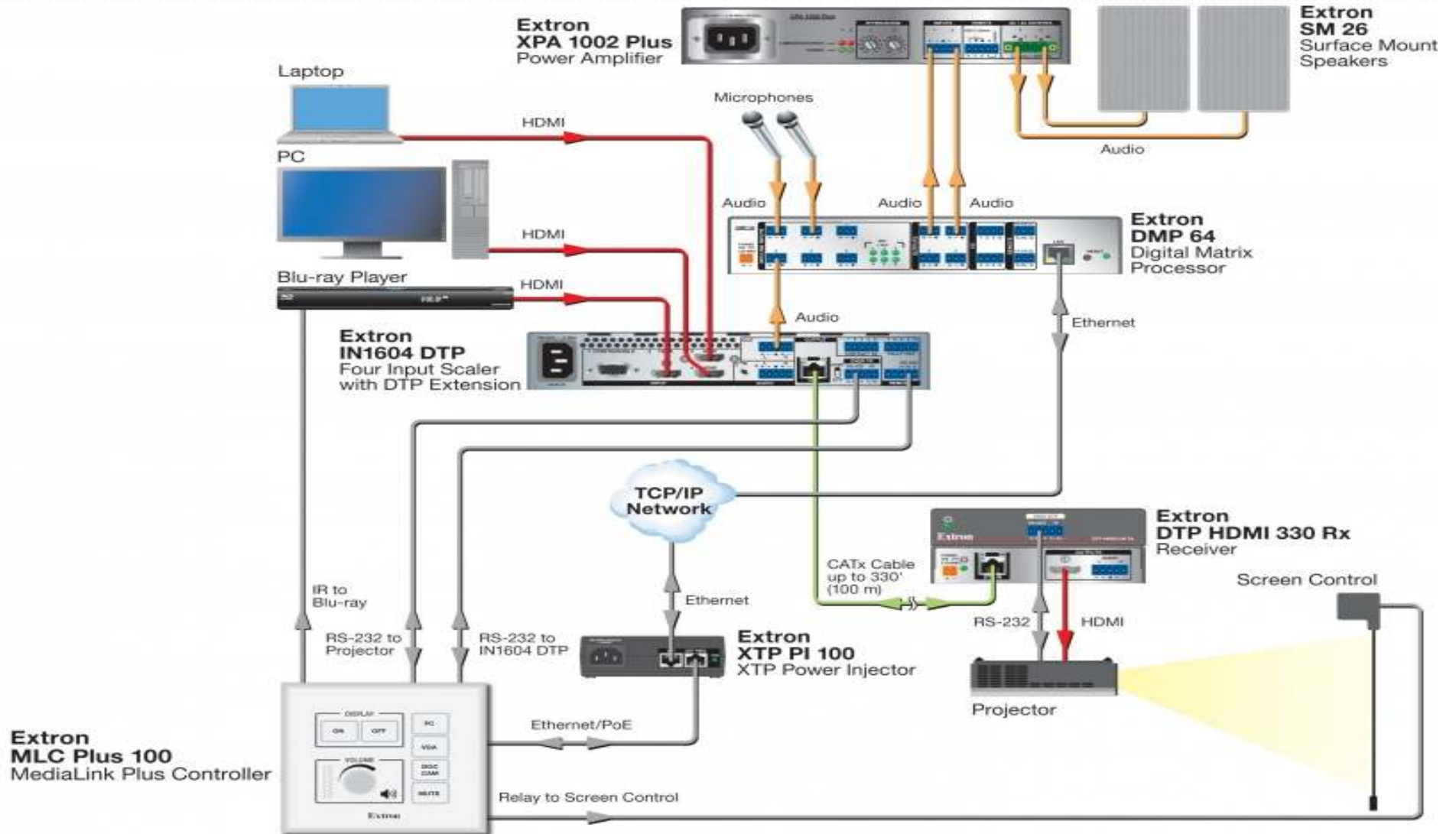
Smart Classroom Overview

- A smart, digital classroom is a technology-leveraged teaching-learning system wherein the teacher is empowered to teach interactively and student is inspired to learn with a quest for excellence.
- A smart classroom solution is based on interactive, rich multimedia content-enabled education system which illuminates abstract & difficult concepts with crystal clarity. It bridges the learning gaps between teacher & students and helps them realize their true potential.
- A smart classroom solution uses in-built content bank comprising of 2D-3D images and multimedia content of almost all subjects which makes the learning process more interactive, student-centered & enjoyable. It completely replaces traditional teaching system of blackboard & chalk in the most economical way.

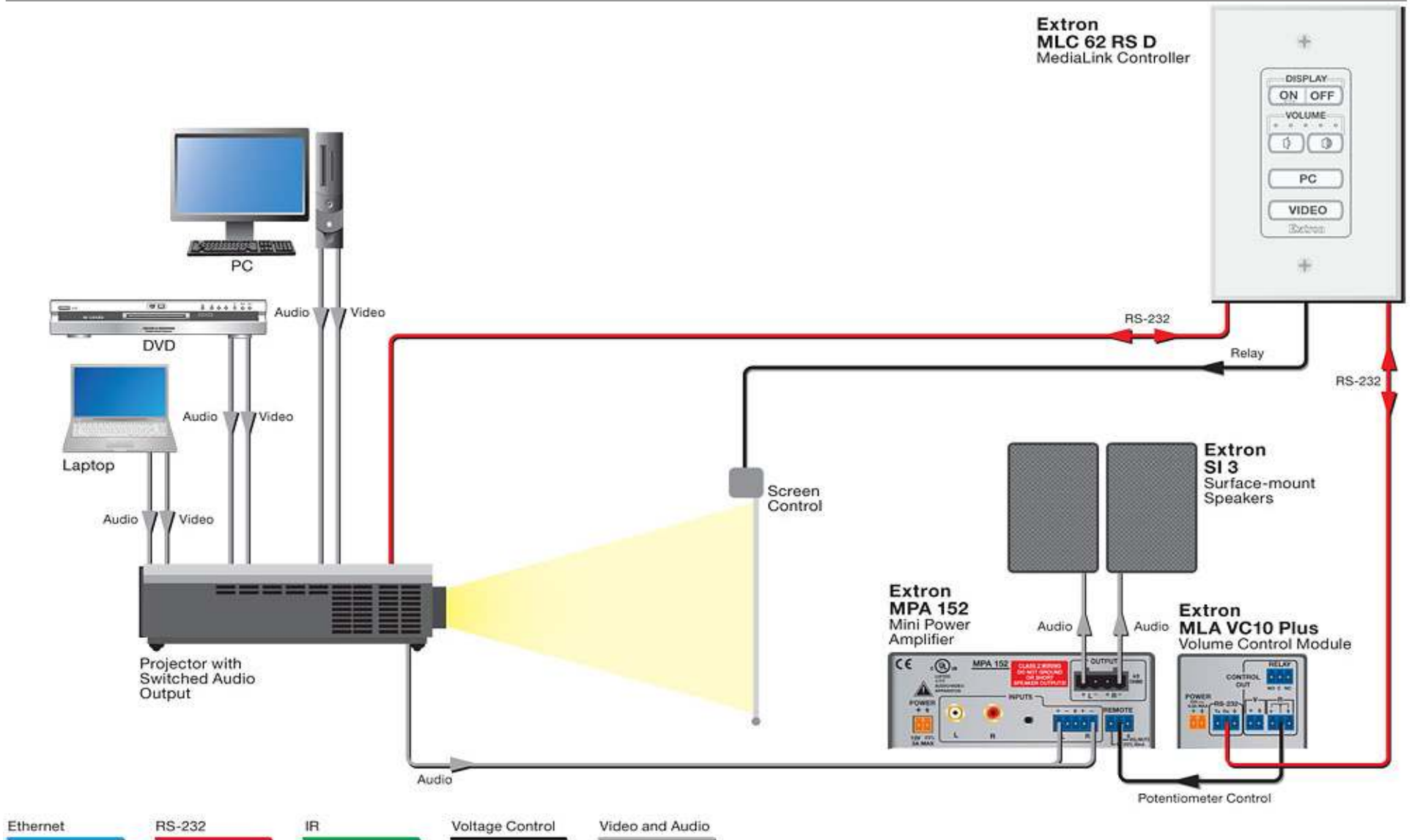
Smart Classroom Need Assessment

- Source Inputs-- Includes AV connections at the e-podium/lectern to support presenter's laptop, with HDMI, VGA and stereo audio. Additionally there can be one document camera and one blu ray player.
- Displays - There is a interactive high definition LED displays or optionally a high definition projector to show the content.
- Audio- All the audio from the sources is fed into a digital matrix processor for audio mixing and level control before going to the audio amplifier and speaker system.
- Control System- An e-podium control and additionally a wall mount control provides a user-friendly interface to select different source arrangements. Controlling of other components like projector, volume etc is also required.
- Recording and Streaming Capability- High definition recording camera must be deployed at strategic locations to capture lecture . The camera should be integrated with the AV encoder for streaming purpose. The encoder must be compatible with various source signal formats and integrated into an existing system without the need for extra AV.

Smart Classroom System Design-1



Smart Classroom System Design-2





For any queries , please write us to

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Thank You...

