# Digital Signage







#### Overview

This pharmaceutical building has public lobbies for customer access and general admittance to the site. Employee lounges and cafeterias are located throughout the building for lunch and other breaks.

## Needs Assessment

Staffing

Digital signage content will be created by the Marketing department for LCD displays located in public areas. Human Resources will create content for the displays in the employee-only areas. Trained personnel will upload the content. The IT department is responsible for administering the content server and performing updates.

#### Display Requirements

Flat-panel displays located throughout the public areas will be used for advertising, news, events, stock prices, and other public relations material. A flat panel display in each of the four employee lounges will provide information about upcoming employee events, holiday schedules, weather conditions, and other relevant data. The displays in the private areas may also be used to display television broadcasts from centrally located TV receivers.

# Sources and Connectivity

Two off-air ATSC tuners and two PC-based content servers will be located in the equipment room. One server is for public content, and the other is for employee-only content. The ATSC tuner signals can be sent to displays in the employee-only areas.

#### **Audio Requirements**

Audio playback will be handled by loudspeakers integrated into the displays.

#### Special Requirements

The existing fiber infrastructure will be used to send video and audio from the control room to the various displays. The equipment room that houses the content servers and ATSC tuners will be located in the IT department.

# System Design Solution

#### **Display Systems**

Four 60-inch (153 cm) displays will be suspended from the ceiling or mounted on the wall in the first floor lobby. For the second and third floor lobbies, four 52-inch (132 cm) displays will be mounted on the walls.

#### Sources and Connectivity

The content servers in the equipment room provide DVI output and require local monitor support. The ATSC tuners have HDMI output, but do not require a local monitor.

### **Switching and Signal Management**

The Extron **FOX SW8** Fiber Optic Switcher and **FOX DA8 Plus** Fiber Optic Distribution Amplifier provide the distribution and routing of the video sources to the displays in both the public and employee-only areas of the building. The FOX DA8 Plus is configured as dual 1x4 fiber optic distribution amplifiers to ensure each area receives the appropriate content.

### Signal Distribution and Extension

Extron FOX 500 DVI Tx Fiber Optic Transmitters accept the DVI video and stereo analog audio signals from the content servers, and send fiber optic signals. The loop-through output provides video to local monitors for the content servers. Extron FOXBOX Tx DVI Plus Fiber Optic Transmitters accept the HDMI video and stereo analog audio from the Extron AVT 200 HD ATSC Tuners to send fiber optic signals.

Fiber optic signals for employee content and ATSC tuners are sent to inputs on the FOX SW8. The FOX SW8 is used to select and send the desired signal to the FOX DA8 Plus for distribution to each display in the employee-only area. The FOX DA8 Plus also accepts fiber optic signals from the public content server, distributing the signal to the public display areas. The dual 1x4 configuration enables a single FOX DA8 Plus to operate as two independent 1x4 fiber optic distribution amplifiers.

The Extron FOXBOX Rx DVI Plus Fiber Optic Receivers are used at each display to convert the fiber optic signals into DVI/HDMI video and stereo analog audio. The FOXBOX Rx DVI Plus receivers in the public areas are connected in a daisy-chain configuration, enabling a single fiber from the FOX DA8 Plus to serve the same content to multiple displays.

