Modern corporate lobbies are fast evolving into places of high-tech innovation that provide an indispensable platform to engage and inform clients and employees. When technologies such as digital signage, video walls, interactive displays and kiosks, and advanced sound distribution systems are deployed in the lobby, they create opportunities for organizations to reduce receptionist workload, increase revenue, and create an overall positive impression that strengthens brand awareness.

This paper provides a deep dive into the technologies used in the corporate lobby and discusses important technical aspects that help with purchase considerations.

**Digital signage and video walls create new ways to engage**

Digital signage and video walls offer a welcome replacement to the stagnant pictures that traditionally adorned corporate lobby walls. High-tech displays provide a flexible, dynamic presentation platform that benefits organizations, customers and employees. For example, different types of content — company videos, announcements, news, customized messages, or advertising — can be scheduled for specific times of day or changed in real time and distributed across multiple displays to capture attention in high-traffic areas.

Built-in RFID readers, used in lobbies to reduce receptionist workloads, are another welcome addition. These readers recognize visitor badges received at check-in, bring the visitor’s name up on a digital screen, and allow the visitor to navigate through on-screen options such as a company directory to contact the person they are meeting.

**How to select the right display**

When evaluating displays for your lobby, it is important to recognize the differences between display types. There are two primary display technologies typically used for digital signage and video walls: LCD flat-panel displays and LED-backlit displays. Deciding which option is right for your lobby will depend on the application.
### PRODUCT CONSIDERATIONS

<table>
<thead>
<tr>
<th></th>
<th>LCD</th>
<th>LED</th>
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<tbody>
<tr>
<td><strong>Display Quality</strong></td>
<td>Offers 1080i HD resolutions. Best for applications where viewers are face-to-face with a display and up close and personal with the technology.</td>
<td>Offers a brighter picture with richer contrast. Does well in almost any ambient light condition, including indoors or outdoors. Best viewed from several feet away.</td>
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<tr>
<td><strong>Performance Requirements</strong></td>
<td>Most cost-effective solution when performance factors such as color and brightness uniformity or image quality are not critical.</td>
<td>Best performance and value when maintaining high image quality over an extended time is important.</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Less costly than LEDs, but operational lifetime is lower and may have other performance compromises.</td>
<td>More expensive, but has a longer operational lifetime expectancy and delivers better performance quality.</td>
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</table>

**LCD - Liquid Crystal Display**

Today’s dominant flat display technology produces images by blocking or allowing light to pass from the light source behind the LCD display.

**LED - Light Emitting Diode**

LEDs are LCD TVs that replace cold cathode fluorescent lamps (CCFL) used in conventional LCD displays.

### Interactive technology captivates and engages audience

Interactive technology captivates and engages audience. Today’s multi-touch interactive displays and kiosks offer endless possibilities for engaging visitors and marketing your organization. These displays can be used to explore the latest release of a popular product, to minimize wait times by allowing self-service opportunities such as banking or account management, or to create try-before-you-buy experiences such as designing a room virtually to see how particular pieces or furniture or wall colors look before buying. In the future, the potential is even greater with the emergence of new tactile or “haptic” devices that will allow users to feel textures on a touchscreen.

### How to select the right touch technology

How to select the right touch technology. There are many different touch-sensing applications, so choosing the right technology for your lobby depends on what you want to accomplish. Multi-touch technology enables multiple users to simultaneously interact with a display, and is particularly useful for larger
interaction scenarios with large-format video walls and tabletops. Single-point touch sensing is best for smaller, interactive displays and kiosks. In some cases, such as technologies like Microsoft Kinect, which uses both imager-based and sensor-based technologies as well as a multi-array microphone, more than one technology may be combined.

**Key Features**

- **Resistive technology:** This technology is an affordable option for smaller formats, but expensive for larger formats. It can detect any object and is impervious to dust, dirt, and liquids, but is sensitive to scratching by hard objects. It also has low fidelity and offers only 75 percent of the clarity of capacitive technology.
- **Capacitive technology:** Capacitive offers excellent clarity and has no moving parts to wear out, making it a good solution for harsh environments. It is impervious to dust, grease, and water, but performs poorly in intense light situations, can only be finger activated, and requires the finger to stay in a no-movement position for detection. Cost is moderate.
- **Surface acoustic wave (SAW):** SAW has the highest stability and clarity of all the technologies and can be deployed on a curved surface. However, it cannot be completely sealed, making it sensitive to dirt, dust, and water as well as easily scratched by hard objects. It is one of the most expensive technologies.
- **Optical infrared light:** There are two types of optical infrared systems: imager-based and sensor-based systems. Imager-based systems are built with two or four cameras in the corners of the display. Sensor-based systems use a series of sensors along one or two edges of the display. Overall, imager-based systems are more affordable, but support fewer touches, don’t have the highest image quality, and are less reliable than sensor-based systems.

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**Advanced sound distribution systems simplify communications**

Whether piping music into the lobby from a personal device or connecting paging systems with interactive company directories so that guests can directly contact employees, today’s advanced sound distribution enhances the lobby atmosphere and empowers guests to take charge of their experience. These advanced systems also offer cost-savings and the flexibility necessary to meet new building requirements. In one survey, over 40 percent cited cost-savings and 19 percent cited the ability to meet new requirements as a key reason for replacing or upgrading their legacy analog system.

**How to select the right sound distribution system**

Traditional public address (PA), background music and overhead paging technology has evolved into a networked architecture system that offers superior intelligibility over legacy systems. The new technology now allows for giant steps forward in managing sound throughout a building or multiple buildings.

**Key Features**

- **Reliability:** A network-based sound system decentralizes processing and page routing across the network, and substantially increases system reliability by eliminating the potential for single-point system failure. Unlike a traditional centralized PA system, networked PAs use another signal path if a switch fails.
- **Scalability:** Networked sound systems provide the flexibility to expand as needed and make it easier to retrofit an existing infrastructure without pulling additional cable. Since the systems use a standard network infrastructure, they also have lower ownership and maintenance costs.
• Flexibility: Networked sound systems let you create public-address zones so pages are only heard where needed. This eliminates disrupting areas like in-use meeting rooms. These systems can also automatically detect the ambient or background noise level in an area and adjust the page volume accordingly.

• Future-proof: Modern building codes continue to demand more capabilities from their sound systems and place greater emphasis on networking and leveraging the IT infrastructure. A networked PA system exceeds today’s codes.

How to select the right control system

Control systems incorporate software and configured microprocessors that direct commands to different devices. Each control system is designed and configured according to the devices the system controls. The best control system is one that you don’t have to deal with.

Key Features

• Functionality: The look and simplicity of the control system is important for a good user experience. The ability to support control apps for smartphones or tablets may also be important for some applications.

• Interoperability: It’s important that your control panel can control all your systems. Make sure inputs and outputs are compatible, and, if integrating with older equipment, that the system can accommodate analog and digital signals.

• Automation: Beyond controlling AV equipment, many controllers have the capability to control and automate additional building equipment such as thermostats, lights and other peripherals that may reduce energy costs.

Control systems make running the high-tech lobby simple

The typical high-tech lobby includes multiple displays, wireless and/or wired hotspots, speakers, microphones, and more. Almost everything has its own remote or control-panel interface, and managing it all can often be a confusing and time-consuming process. A good control system can save the day—integrating all the different technologies into a single streamlined interface. It reduces your workload and makes managing the multiple technologies as simple as the press of a button.