Reinventing the Corporate Space with Next Generation Display Technology

Smart businesses are bringing new technology from cutting-edge applications into the enterprise. These technologies harness the power of high-resolution imaging and collaboration tools, thus transforming the work environment.

INTRODUCTION

Adopting new-generation AV and digital signage technology can dramatically transform corporate/enterprise workspaces into communication and collaboration-rich laboratories for innovation. Adopting new technology helps drive employee satisfaction and productivity, and can wow customers or vendors who are invited into the space.

To make the case for adoption of these new technologies, you'll need to demonstrate to key stakeholders—in a real-world setting—the clear and demonstrable benefits of these new-generation solutions. And then you will need to make the right digital display choices for the best display image quality, employee engagement, and touch screen interactive capability.

SEEING IS BELIEVING

The new-generation digital displays, which include LCD flat panels ("flat panel TVs"), digital signage, and video walls, are becoming ubiquitous in public spaces, retail stores, airports, and more. But smart businesses are now starting to bring those same technologies into their own corporate/enterprise environments to increase productivity, boost company morale, and greet visiting customers and VIPs, as well as to facilitate staff communication and collaboration. Some smart businesses go beyond simply putting new AV technology in their meeting rooms, by also placing these new tools in corporate lobbies, in front of their buildings, and in "huddle"-type collaboration spaces.

What is triggering the upgrade to these new AV corporate solutions? The first step is to see them in action:

- Have you seen 4K displays in the enterprise environment, with their razor-sharp displays of spreadsheet data?
- Have you seen portrait mode and stretch digital signage screens that are employee-facing and serve to inform and motivate staff while blending in with the architecture?
- Have you seen spectacular, outdoor, VIP visitor-greeting digital signage that welcomes visitors to your facility as they enter your building—that very instant when their first and most important impressions of your company are being formed?
- And, more importantly, have your customers and partners seen those innovations?

In today's corporate work environment, there are two types of people—those who have yet to see the possibilities beyond their cubicles and meeting rooms, and those who have seen their workspaces invigorated with new technology tools for better productivity and better company morale. The main business challenge, whether you're an AV integrator seeking to grow your business in this market or an AV end-user championing new technology adoption in your organization, is simply demonstrating these new-generation solutions in a real-world environment.

The most dramatic display technology advance in years is the new-generation 4K digital display.

THE CLARITY OF 4K

The most dramatic display technology advance in years is the new-generation 4K digital display. "It comes down to those who have used 4K for a meeting space, and those who have not," says Dan Smith, Senior Director of Business Solutions for LG Electronics. He is speaking, of course, about the new 4K-resolution, digital flat panel displays. In the U.S., more than 7 million 4K Ultra HD TVs were sold in 2015, up from 2 million in 2014. The demand for 4K resolution has never been higher, and industry leaders such as LG have built on their 4K leadership in the consumer TV market to redefine display performance technologies for commercial applications and give corporations and integrators the opportunity to install leading-edge, consumer-driven features for enterprise installations.

"We tend to think of 4K displays for use in a retail store," continues Dan Smith, "or a luxury car dealership, for example, where the budget is bigger and that 'wow' factor is needed. But we are actually seeing more need for 4K displays in corporate meeting rooms and collaboration spaces. It really comes down, today, to those who have seen data displayed on a 4K screen in a corporate environment, and those who haven't. Because many corporate meeting rooms have presenters and audience closer to the screen, the higher resolution really pays off, when data and graphics have to be crisp and clear. After all, the closer you are to the screen, the more you need 4K to resolve detail. And more and more in corporate presentations you see not just data-intensive spreadsheets that need to be fully legible but also video."

Recent research from IHS shows that the huge influence of 4K from the consumer TV market has crossed into the commercial AV market, and IHS says that in less than five years, 4K resolution displays will account for more than 10% of all displays sold for commercial/corporate use.

When you factor in the "sales" part of the equation, the need to have 4K for corporate presentations is even greater.

4K penetration

Source: IHS
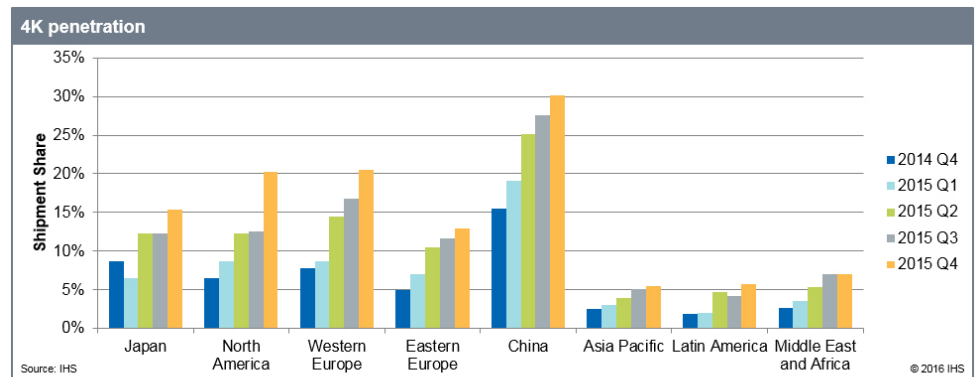
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4K continues to surge for the consumer market, with consistent growth every quarter. This graph from market research firm IHS shows flat panel TV shipments. Industry leaders such as LG have built on their 4K leadership in the consumer TV market to redefine display performance technologies for commercial applications – giving corporations and integrators the opportunity to install leading- edge, consumer-driven features for enterprise installations.

It's one thing to get that kind of clarity and detail from the displays for presentations to your own team members. But it's even more important to present your customers or vendors with the kind of detail that only 4K can bring, because selling your company's brand or actual products demands imaging that is superior on all counts: resolution, contrast, thin profile, and small bezels. Superior presentations, using the latest display technology, can close a sale. Period.

The growing trend in 4K digital display screens is larger screen sizes. The use of video projectors in boardrooms, meeting rooms, and other corporate spaces is declining. This is the result of flat panel TVs and commercial LCD panels both coming down in price and going up in size, to replace the old video projection screen. In fact, recent sales data show that large-size 4K panels are one of the fastest-growing segments for commercial grade displays for the corporate environment. The bottom line is that 4K, especially 4K with larger screen sizes, is the most dramatic trend in displays today, because the combination is a win-win for management, employees, and customers of the enterprise.

If you are an AV integrator, the problem of razor-thin margins on the sale of flat panel

LCD displays for corporate applications has been a challenge in recent years. But as 4K displays see higher demand for corporate applications, new opportunities emerge. Upselling to 4K creates an immediate lift in margin, and also creates the need for 4K switching and signal distribution and for management equipment and services.

THE NEW AV-DRIVEN ENTERPRISE WORK ENVIRONMENT

According to a recent article by Elizabeth Mayes, of Four Winds Interactive (one of the most successful and respected providers of digital signage for corporate environments), employee communications play a critical part in any employee engagement strategy. Mayes points out that, as part of Employee Communications Best Practices, strong communication practices lead to engaged and empowered employees who are more committed, deliver increased productivity, and ultimately improve the market value of your organization. So how can leaders create an empowered, engaged workforce? By using the latest communication medium to reach employees in all aspects of their workday.

That technology can take the form of video walls in the lobby of the enterprise or digital

signage screens in the informal hallway, break, or meeting areas. There are many areas in the enterprise that can be turned into engaging spaces, in effect "scaling up" legacy IT networks to include not just screen "monitors," desks, or displays in boardrooms, but every space in the enterprise.

Here's how one of Four Winds' corporate clients, a global transportation company, is using AV to drive employee engagement:

- Digital displays are used to help identify goals, track productivity, and capture and share data in the office environment.
- A "Productivity Scoreboard" is used on the production floor to show employees' actual production contributions vs. their goals.
- Timely updates are communicated every few minutes for a more informed and engaged workforce, empowering employees to succeed.

For a different global company, with over 82,000 employees, the technology giant implemented an enterprise visual communications solution to eliminate paper-based signage, enhance employee communications, and achieve the following goals:

- Effectively push information out to employees.
- Share campus events and information, weather and stocks, internal and external news, and other miscellaneous items like fitness center information, community activities, upcoming holidays, and more.
- Quickly deploy notifications of emergencies when triggered for scenarios such as fires, threatening weather, police alerts, and more.
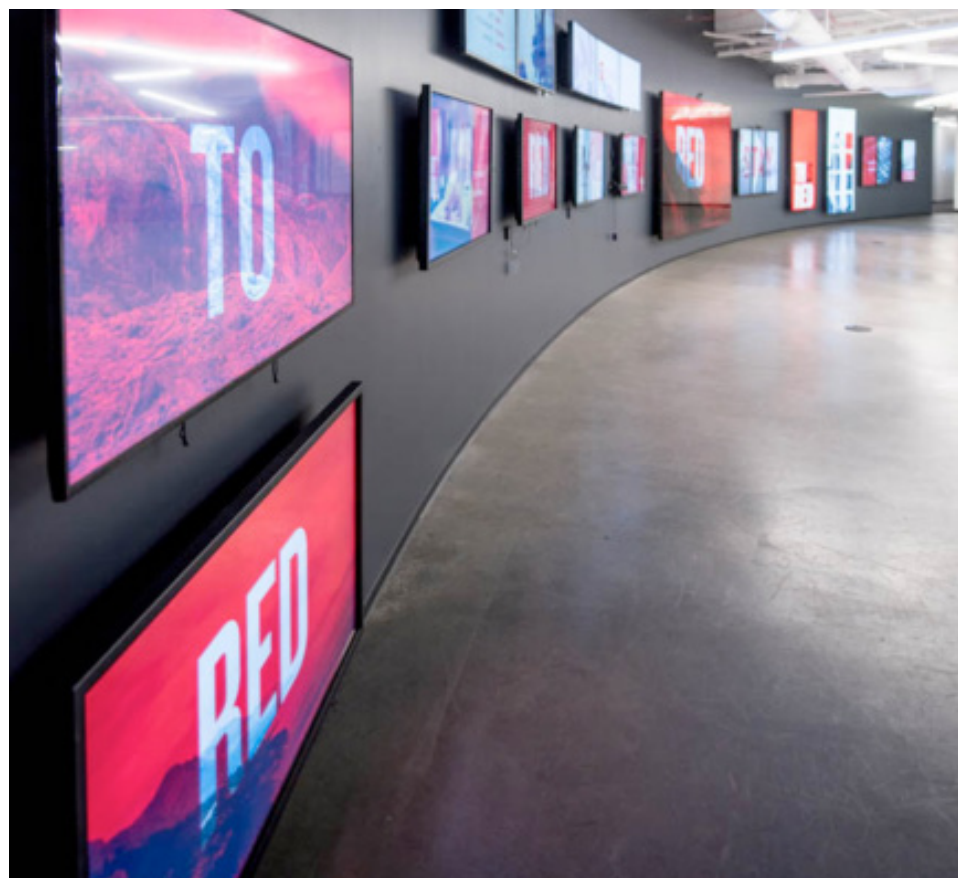
After rolling out the new engagement technology, that company asked employees for feedback on the new program. Surveys, observations, and interviews with the employees were commissioned, in order to measure the rate of employee interaction and the perceived value of the new visual communication program. The results showed that 98% of employees noticed the signs in the building, the vast majority of employees found the visual communications network a positive addition, and the program increased employee engagement significantly.

> **We are actually seeing more need for 4K displays in corporate meeting rooms and collaboration spaces.**
>
> *– Dan Smith, LG Electronics*

All of the above examples, and indeed all of the most successful deployments of new-generation displays and digital signage for the enterprise space, involve designers and corporate managers thinking outside of the box. For example, very effective use of technology can involve:

- Placing at least some of the digital displays in "portrait" (vertical) mode, as opposed to "landscape" (horizontal) mode, to get away from the "TV" look.
- Placing digital signage as a "digital window banner" – i.e. placing flat panel digital screens inside windows, but facing outdoors, thereby creating outdoor/ entrance messaging with an easy install, using indoor-rated displays.
- Using new-generation, outdoor-rated, super high brightness displays, mounted outdoors, for dramatic impact on VIPs or customers visiting your corporate offices. This adds a prestigious greeting technology that can make a valuable first impression on visitors.
- Using new-generation, non-16x9 format screens to mix up the visual look of your messaging and fit into unique architectural elements in your space, but also to get people's attention with screens that can be noticed more easily by employees moving around your offices.

TOUCH SCREEN COLLABORATION

One of the most important trends in the corporate/enterprise work environment is the proliferation of large digital signage

screens that are touch-interactive. It's all about collaboration; touch screens facilitate better collaboration, for "huddle spaces" (smaller, often flexible, meeting spaces, rich with collaboration technology), "hotel spaces" (technology-rich office spaces for employees or consultants visiting your corporate campus), as well as for standard meeting rooms, boardrooms, and training spaces.

The leading display providers and content software companies offer touch-capable solutions for every business, meeting, and collaboration need. Top features of these solutions include:

- A wide range of digital display sizes. One size does not fit all.
- Support for a third-party touch overlay for the multi-touch functions.
- True multi-touch capability – i.e. the ability to have not just one touch point, but up to ten (for many fingers or hands). In previous years this capability was supported through Flash; now it is also supported through HTML5.
- Support for multiple operating systems, and the ability for users to implement their own IT-approved software tools and peripheral equipment they already own.
- Support for "BYOD," allowing different users to "bring your own device" (laptop, smartphone, etc.) to interface with the displays in the meeting space.
- SoftAP ("software-enabled access point") capability, and the ability to have open wi-fi built into the panel.
- Collaboration tools that allow easy connectivity, including HDMI, as well as peer-to-peer connectivity, such as through Miracast.
- Digital signage that functions as needed; for example, turning the displays into interactive wayfinding screens or VIP visitor-greeting displays in the lobby.

LG'S ENTERPRISE AV PERSPECTIVE

LG is creating technologies that bring the best and most innovative features from high-end commercial applications, such as digital signage and even super high resolution simulation environments, into AV for the corporate and enterprise space. And now, LG can mirror a consumer's premium at-home viewing experience in the office environment. LG's offerings include 4K resolution for superior picture quality– with In Plane Switching (IPS) technology that produces accurate and consistent colors from any viewing angle, as well as seamless, "smart" connectivity that can easily be customized for each business application. LG's display solutions range from 10-inch to 98-inch class sizes, along with larger displays, such as video wall solutions, as well as indoor, semi-outdoor, and outdoor applications.

LG is expanding upon these trends, by introducing more feature-rich products – from 98-inch models down to 10- and 22-inch displays, reflecting the industry-wide expansion of both smaller and larger formats. Innovative sizes for unique customer needs will

This enables you to use the same screens for many purposes, reducing TCO (total cost of ownership) while encouraging creative IT/AV management among your staff.

SUMMARY

As the revolution in flat panel displays, including 4K and collaboration-enabled touch screens, migrates from the world of consumer TV and high-end commercial applications, including digital signage, to the enterprise, the opportunity to transform the workplace for greater productivity and employee engagement has never been more promising. But to succeed, you must make the right digital display choices, for display image quality, employee engagement, and touch screen-interactive capability. ∎

continue to expand as well, with the introduction of an 86-inch "stretch" display with stunning 3840 x 600 resolution. LG is also the first to introduce the stunning clarity and color depth of OLED screens into the commercial AV market.

LG's newly-launched 75-inch class Multiple Screen Split-Ultra HD Signage display (75UH5C-B) delivers an immersive 4K viewing experience with four times the resolution of comparable full HD displays.

For video walls, the LG VH7B series of direct back-lit LED displays, available in 49-, 55- and 65-inch class sizes, is redefining the video wall category with a bezel width of 0.9 millimeters (0.035 inches), allowing the displays to be connected seamlessly to create a powerful and impactful image for an immersive experience that's certain to capture any viewer's attention. The video wall series features a high-performance SOC, which works with LG's webOS for Signage interactive platform that is flexible and lowers the cost of ownership by eliminating the need for an external player. Each display features LG's In Plane Switching (IPS) panel technology to ensure accurate color saturation and contrast, even at wide viewing angles, resulting in unparalleled picture quality. Each model is designed to be lightweight (no more than 20 pounds); combined with its slim depth of just 87 mm, this allows for easier product installation and maintenance.