

SONY

HARNESSING THE POWER OF DIGITAL SIGNAGE

Choosing the best solutions for messaging,
branding, and communicating in today's
content-everywhere landscape

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Digital signage – the transformation has begun

The new normal is here and digital signage has moved from technology wish list to critical mission.

When AV display technology evolved to the point where digital screens were more affordable and easier to integrate into any public space or common area, digital signage burst onto the scene, two decades ago. Digital screens for wayfinding, marketing messages, and branding promos were seen in airports, malls, lobbies, and other common spaces, and digital content and communication was no longer confined to boardrooms, meeting rooms, and classrooms. Good communication meant the option of taking your message where people circulate, travel, dine, are entertained – everywhere they're on the go or in sports arenas, concert halls, civic buildings, and more.

What's changed, today? Everything. Digital signage has now moved from wish list to a critical mission for every industry and every space. The recent disruptions and pivots led to new security, efficiency, and communication mandates post-pandemic. Messaging and including every one of your employees, visitors, staff, students – every stakeholder – in your communication plan is no longer an option. It's a necessity and a "must have" for every business, school, government office, or entertainment venue. And digital signage content has evolved from simple wayfinding or marketing messages to critical, context-sensitive, useful information, updated constantly. Fortunately, as the messaging and communication needs of businesses, schools, government offices, transportation hubs, and faith and healthcare facilities have taken on a new urgency, the technology of digital signage has evolved rapidly

to meet the new challenges – if you've chosen your digital signage technology provider carefully. In addition to new tools on the hardware and software side, best practices are now emerging on the business and deployment side.

How are the newest, most advanced digital signage systems different from the rollouts of just a few years ago? After years of research, development, and investment in both new generation hardware and software/content tools from industry leaders like Sony, today's robust digital signage solutions are not the simple airport-style systems of the past. Rapid advances in the evolution of API's (application programming interface), new display technologies, cloud-based content management systems, and IoT- and AI- enabled systems have ushered in a revolution in digital signage. Today's systems – when designed and executed carefully – bring new

generation functionality, flexibility, and stunning imagery to common space digital content in every application.

And even as these new developments have brought new and better tools to the hardware and software side, best practices are now emerging on the planning, deployment, and maintenance side of digital signage rollouts. These new best practices now make it possible for any company, school, or agency, with any budget, to reap the benefits of affordable, scalable, easy-to-manage systems that leverage the lessons learned from a decade of leadership from companies like Sony. Good timing – because as workplaces and public spaces return to normal, the new "normal" now includes the need to use the digital tools available today to go way beyond yesterday's simple "signage" and toward purpose-driven AV-based messaging and interactive ecosystems that evolve with the organization.

And perhaps most important of all, best practices now leverage the latest security protocols, so that new, robust device management and IT Security standards previously reserved for IT device deployments and administration are now part of digital signage deployments.

Meeting the challenges of today's digital signage

Unlocking the synergies of hardware, software, and connectivity solutions

Digital Signage – when done right – leverages best practices for the three key components of systems: hardware (digital screens, media playback appliances, mounting systems), content software (the CMS: content management system), and connectivity (connecting screens, and content servers on the cloud). For the best deployment, the best ease-of-use, the most rigorous network security, and the best monitoring, maintenance, and service after the system is up and running, all those components must work together seamlessly.

Best practices are being established by the top AV integrators, content management providers, and end users. The new best practices

now guide both those who are installing digital signage systems for the first time, and veterans of rollouts for every application: workspace management & staff communications, wayfinding, customer engagement, advertising & sales promotion, situational awareness & emergency messaging, visitor management, and more.

The rise of cloud-based digital signage content systems, and better connectivity for system components

In addition to the stunning new displays now available, the most revolutionary development in digital signage in recent years is the rise of the cloud.

Before the huge increase of cloud-based content and control, many

digital signage systems depended on content software installed on-premise at the retail store, corporate office, bank, school, etc. The CMS (content management software) was installed on the servers of the end user. SaaS (software as a service) was an option and was typically cloud-based, but either on-premise or limited-functionality SaaS without the refinements of today's best cloud solutions dominated digital signage. The result? The on-premise CMS were too expensive and too difficult to manage by the user's staff who could not just log in to a network for access. And the SaaS options lacked today's better network security protocols and the processing power to seamlessly layer content from many sources including live video sources or other locally-hosted content.

What's changed? Today's best cloud solutions combine the best

Better API's for better digital signage

New generation Application Interface Programs (API's) are software tools that enable better software-to-software and software-to-hardware communication. These new API's now enable content management automation, reducing labor cycles tied to scheduling and trafficking content, as well as optimizing dynamically driven content to leverage a range of contextual triggers, keeping content fresh and relevant with less day-to-day work required in the CMS.

What does that mean for digital signage? The best display makers

(such as Sony), and the best CMS providers, are now developing new API's that leverage the synergies of the top platforms to bring a higher level of functionality to your deployment. For example, Sony BRAVIA displays offer a variety of APIs that allow developers to build custom digital signage solutions. "Simple IP" is an ASCII-based protocol that emulates serial type control over IP. "IRCC IP" protocol emulates IR control over IP. The REST API protocol enables the development of complex signage solutions with standard development tools.

For example, REST API enables a user to command a resizable window for content, power the display off when a signage schedule isn't running, or change the display's video input based on a touch-point. These tools allow digital signage applications to be developed quickly and easily – with a broad selection of APIs that allow you to be more creative and effective at designing useful and eye-catching digital signage applications.

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of both worlds – security that was previously only available with on-premise, locked down servers, and robust, multi-source content performance, including multitask or multithread, with easy network access, and full monitoring and system reporting. They accomplish this by leveraging four recent advancements in digital signage:

- HTML5 applications that are built on an open and familiar platform, avoiding the limitations of the proprietary, on-premise server-based CMS options of the past.
- The creation of better API's (application programming interfaces) that allow better compatibility between different providers' digital signage hardware and software offerings.
- SoC (system on a chip) enabled

digital screens that simplify both system installation and cloud-based content management.

- The inclusion of IT administrators as critical business partners is now driving better digital signage decisions, approving of devices, and better alignment with IT Security protocols. This dovetails with the rise of Android as a preferred IoT device platform. IT admins' familiarity with MDM/UEM device management platforms and the much-improved security on later builds of Android are key to this improved network security and platform synergy.

Getting content to the screens: SoC, or stand-alone media players.

Just as digital phones became

“smartphones” over the past decade, so have the preferred digital signage screens for many applications become smart displays. Smart digital signage displays are SoC-based (system on a chip), and today they constitute over 70 percent of all displays sold.

The emergence of the “smart TV” that uses open software platforms, such as Google’s Android TV platform (used by Sony), along with the universal HTML platform, has paved the way for developers to design applications that can run directly on the display without requiring an external “set top box” or digital signage “media player”. This approach not only helps reduce system costs, but also increases system reliability by reducing the number of hardware devices and therefore failure points. For developers these “smart TVs” with Android and HTML tools make building digital signage

The digital signage advantages of SoC

Traditional digital signage systems used separate components for CPU, I/O, and memory, but SoC, “system on a chip”, combines all of the components into a single integrated circuit, i.e. puts them “on a chip” and then puts that chip into the display configuration. The advantage of using SoC is smaller size, lower power consumption, and cost savings from not having to purchase and install separate media players for the digital signage systems. More recently, industry leaders such as Sony introduced SoC displays that

incorporate higher performance CPUs, more memory, and more software, with operating systems, browsers, and software support to run HTML5 applications of many kinds. So over the past decade the digital signage display has evolved from a processor-based display to a SoC-based smart display, and now to a display platform which is the combination of SoC, display OS, and app store. The latter is best exemplified by Android TV, adopted by Sony.

SoC and Network Security: Until recently, enterprise and federal government entities would not allow ‘Smart TV’s’ to be placed on their networks. The rise in adoption of master data management (MDM) to properly administer IoT devices and mitigate security risks has helped open the door for SoC-based implementations, allowing the benefits of system-on-a-chip to become a reality for end-customers.

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with richer content, easier. And the installation of a signage player that runs directly in the display saves time and eliminates the need for mounting external boxes, routing cables and supplying additional power beyond the power the display needs. Costs on digital signage installations can therefore be trimmed significantly using SoC displays instead of installing separate digital signage media players for each screen.

Do you need external media players for your digital signage screens, for some applications? More than SoC was needed in the past for some applications where the content was very graphically intense and/or it involved large video walls (some with millions of pixels). But many digital signage CMS providers are now saying that the best SoC – such as Sony’s – meets or exceeds the capabilities of PC-based media players. And because the Sony SoC is Android-based, offering the same architecture most CMS developers are already familiar with, you can leverage a huge developer community to port existing software builds to run on Sony displays – with very little further development required. More importantly, CMS providers do not have to establish expertise on another proprietary Operating System, helping keep their development costs lower. Sony now offers a full line of 4K, Android-based SoC Displays designed to support a rapidly growing eco-system of software solutions, spanning Digital Signage, IPTV, AV Control and Device Management platforms.

New generation displays: increasing your options, and the success of your digital signage.

Superior imaging is at the heart of great digital signage. To leverage superior imaging, choose a technology provider that best fit your application. Best practices among top AV design consultants and end users alike center on choosing a provider that gives you great options for, and within, each of the three key imaging categories: LCD displays, dvLED (direct-view LED), and laser projection. Look carefully at the expertise, track record, and engineering DNA of the AV display provider. What company has led the way in pro AV, decade after decade?

- Sony’s award winning products are found in all vertical markets and applications, spec’d in by the country’s top AV design consultants, and installed by the top AV and digital signage integrators.
- Text, graphics, and video look better when you follow today’s best practices around 4K and HDR, a perfect example: Sony 4K Professional BRAVIA Displays, with crisp detail and rich, vibrant colors. They let you add impact to your digital signage messaging for any space.
- Don’t overlook projection as an option for some digital signage applications. For very large screen sizes for example, or when you need to project your messaging or video onto

Best Practice:

4K and HDR – a winning combination for LCD displays

When adding multiple regions, or segments, to a display that is less than 4K/UHD resolution, the ability to view the content within those regions is diminished. On the other hand, a display with 4K/UHD resolution can resolve four regions of Full-HD content pixel-to-pixel, and adding additional regions to the signage content can be done without compromising the readability. Technologies for image processing, High Dynamic Range (HDR) and wide color gamut further enhance the visual experience.

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architectural details or unusual surfaces. The latter, called “projection mapping”, is a stunning use of projection for digital signage.

- dvLED (direct-view LED) is on the rise in digital signage. Category-leading solutions like Sony’s Crystal LED turn the world’s biggest ideas into thrilling visual reality with latest microLED solutions – for large-palette digital signage in airports, theme parks, museums, galleries, corporate lobbies, broadcast studios, and retail spaces

Future-proofing your digital signage system for touch and interactivity.

People are familiar with – and now even reliant upon – touchscreen technology, because of its huge popularity in consumer products. This has accelerated the move towards touch-enabled solutions for AV and digital signage. Adding touch screen integration to displays delivers more interactivity, creating a holistic and tactile digital signage solution that can effortlessly communicate critical information.

The best display platform for digital signage is one that offers not just one proprietary “touch” function, but a variety of ways to deliver and interact with content. For example, touch-enabled signage applications can be utilized in retail for item selection, in corporate for way-finding and directories, and in entertainment for sponsored music videos or movie trailers.

Another best practice is choosing a display provider that also incorporates content mirroring, content casting, and other USB and Bluetooth enabled functions, allowing your developers to design digital signage for more creative applications.

Beyond public space messaging – best practices for the future of digital signage usability and compatibility.

The dynamics driving digital signage adoption today are multi-faceted: in addition to the established demand for traditional messaging, we are seeing an increased interest in unified communication and hybrid working environments. That new collaboration landscape has accelerated the need for physical spaces to be able to have digital signage displays for situational awareness and team-wide messaging.

Internal corporate or educational institution AV systems going forward must support digital signage playback of traditional AV applications, and vice versa. The new hybrid AV system/ digital signage system should support screen types from mobile phones to desktop to traditional digital signage as channels to communicate and meet the need of the new “anywhere workforce”. Content today is about providing the digital tools to deliver your message where the audience wants to receive that information – in any shape or form – across the

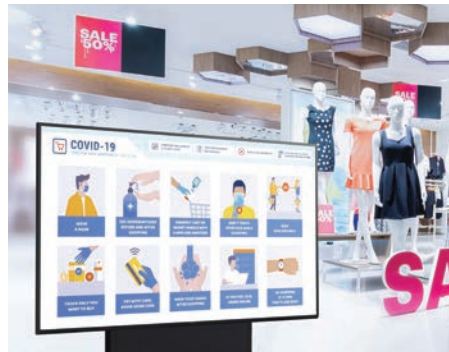
entire chain. Industry engineering- and thought-leaders like Sony are committed to helping you unlock the benefits of digital signage in all its new permutations – not just provide screens.

Growing the interactive ecosystem: Sony’s interactivity partners

Look for a digital signage display provider that works with not just one but a variety of third-party touch and interactive screen providers to enhance the performance and operability of the signage solution. The top display providers, Sony leading that group, are constantly adding to their pool of third-party touch and interactive feature partners.

The boom in digital signage across every industry

New generation digital signage solutions are in high demand across every part of the economy – and for educational spaces and government facilities.



Retail space digital signage

Over the past few years digital signage had taken some hold in Retail spaces – for either “wayfinding” or promotional/sales lift/advertising, with the later usage dominating – as harnessing the power of digital messaging and promotion in-store is the goal of every brand and every retail store. That’s why every shopper has seen digital signage screens in stores from the high end, luxury market to grocery stores. Digital signage in-store has proven itself with measurable sales lift, and it allows stores to do dayparting (scheduling different content for different days and time-of-day) to hone their place-based marketing.

Digital signage for retail can also create the “endless aisle” with technology. The concept of the endless aisle is about enabling customers and staff with further inventory visibility and functionality, through mobile touchpoints and digital signage. For example: using a smartphone,

or, an interactive digital signage screen, to browse and order products that are not available in-store.

What’s the latest trend, for retail spaces, today? In previous years, there was no need in the market to combine “security” or health or visitor management messaging with marketing messages or wayfinding. But in the post-COVID “back to work, back to shopping” landscape, and well into the future, there will be a new opportunity for providing products and services that cross what was previously a divide between security/building access and digital signage. The retail market is moving fast toward combining solutions to meet these needs. For retail spaces, “access” will now include creating a “digital front door,” allowing the retailer to do any combination of security or health screening, wayfinding, and brand promotion or direct sales lift content at the point of entry to the retail space; At the heart of that trend is the most important driver of all: technology – including digital signage – can help the retailer provide a safer, more

responsive, caring, and results-oriented shopping experience in-store. Research shows that the customer experience – including safety/health concerns, not just shopping experience – will overtake price and product as the key brand differentiator going forward.

Corporate, enterprise, and SMB digital signage

Whether you’re a major corporation or a small business, you need to communicate with workers when they’re not in meeting rooms, boardrooms, or at their desks. Communication today means taking your message where employees and visitors enter the building, circulate, take breaks, dine – anywhere they are on your premises. New hardware and software tools bring your entire corporate campus into the digital communication equation. The most forward-thinking companies, large corporations and SMBs (small and medium sized businesses) alike, are using new display technology



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to bring better communication and messaging to their employees wherever they are – outdoor spaces, entrance lobbies, dining areas, and more.

Important trend: offices are being organized differently now, to place communication tools (not just “signage”) where they previously didn’t exist. For the design of huddle rooms and conference room spaces, today companies are interested in activating collaboration screens, and then flipping those screens over to digital signage screens when the environment is not being used for its primary purpose. It’s a “crossover” of AV/Collaboration systems and digital signage, and it’s the future of AV.

Another example of AV and digital signage crossover: digital “room scheduling” screens outside of meeting and conference rooms. If you’re thinking only of small digital signage screen outside office/ conference rooms that just show the room “schedule”, think again. New generation room scheduling hardware and software, designed and combined carefully, lets you “see into” that room, not with

cameras, but see and analyze with data coming back from the room. This is nothing less than a revolution in both digital signage and in UCC and AV in general, to monitor, and fine-tune all the AV systems in that space, inside or outside a “room,” in real time and the creation of more efficient AV and IT systems going forward for the organization.

Higher education, digital signage all around campus

New technology tools are now putting all of the campus into the digital communication equation. The most forward-thinking schools are using new digital signage technology to bring better communication and messaging everywhere students, faculty, or visitors are – outdoor spaces, lobbies, alumni centers, dining areas, recreational and sports

Best Practice:

IT-friendly SoC digital signage displays for business environments

Choose digital signage displays that are easy for the IT department to deploy and monitor, and easy for content creators at your company to manage. SoC (system on a chip) enabled displays that run on an Android platform are an ideal solution. They make it easy to implement an easy-to-install single-screen solution, or as your ambitions – and your business – expand, build a cost-effective, easy-to-manage network with as many screens as you need.

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spaces, and more. Because the new, digitally connected campus is all about the entire college experience and the entire campus.

Top university tech managers and AV integrators understand that the need to curate a complete digital signage hardware and software solutions that suits the messaging needs of the school. Mounting randomly sourced LCD panels in hallways and lobbies, then walking away, is no longer enough. Best practices are emerging around robust, AV/IT integrated signage solutions that are easy to deploy and easy to manage. Best practices today, for digital signage on the college campus, include using displays that are easy for the IT department to deploy and monitor, and easy for content creators at your school to manage. SoC (system on a chip) enabled displays that run on an Android platform are an ideal solution.

Healthcare facilities utilizing digital signage to increase safety

Do you need to message patients in common areas to decrease their perceived wait time for their appointments? Do you need to communicate with staff when they're not seeing patients, or in meeting rooms, or at their desks? Communication today means taking your message where your staff – or patients and visitors – enter the building, wait for appointments, circulate, visit break rooms and common areas – anywhere they are on your premises.

And increasingly, digital signage is also being used in healthcare facilities for:

- Video walls, for donor recognition, branding, and interactive applications
- Smart patient rooms
- Touch-free visitor pre-registration
- Digital patient status boards
- Digital patient queuing systems
- Command and monitoring centers to support telemedicine and eICU's
- Room scheduling

The most forward-thinking hospitals and clinics are using new display signage to bring better communication and messaging to their staff and visitors wherever they are.

Government agencies and civic offices

For wayfinding, showcasing or promoting programs and events for employees, to emergency announcements in real time, to digital signage for dining and other common area messaging – pushing content, securely, to non-office areas in your facility is a growing trend.

Key to effective digital signage is careful selection of hardware/software solutions that suit the messaging needs of the organization. Best practices are emerging around robust, IT/AV integrated digital signage solutions – easy to deploy and easy to manage for content.

The displays must be easy for the IT department to secure: the security of public area displays is paramount. A key best practice for many government buyers of digital screens: your display vendor needs to offer the option of displays that have no WiFi or Bluetooth built-in,

Best Practice:

Displays that are TAA compliant

TAA (Trade Agreement Act) compliance is key to many government agencies, when selecting displays. Sony can provide a broad selection of monitors and large format displays that help your agency achieve better workflow, better messaging, and better data visualization – all within a TAA-compliant display ecosystem.



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so your team has the confidence that no unauthorized access to digital signage screens will occur.

Transportation hubs

The airport – it’s the public space in which most of us first experienced digital signage, with flight information, news and weather feeds, and marketing messages about airport restaurants and shops. It was the perfect place to launch digital signage, with a captive audience in a defined but large space.

Today, many airports as well as train stations have gone beyond basic digital signage – with top AV and experience design companies creating immersive multimedia palettes at airports, with stunning LED walls. The result? Creating a “travel adventure” that begins before a flight is boarded.

The use of digital signage networks in public transportation hubs has been on the rise, and that growth is forecast to continue, unabated. Airports, train stations, subway stations and tunnels, and even parking garages – are all seeing growing demand for digital signage solutions. And add to that, the rise of command-and-control

centers to manage the operation of all those networked facilities. It’s a combined use case on the rise, both on the digital signage hardware side and on the content management side.

Entertainment and public spaces

Venues for live events, from concerts to sports facilities, are already seeing the resuming of the boom in demand – and then some – that’s been driving them for decades. The sports venue market alone – including pro sports and college sports – is an economic juggernaut in the U.S. economy. The big sports arenas have obvious tech investments – from the big LED walls to a full-blown broadcast TV station – but increasingly display-based hybrid and streaming capabilities, and digital signage in all its permutations, are also part of the mix.

The biggest trend in sports facilities: just as the nature of “retail” is changing, so is the definition of a “sports facility.” And the two are meeting in the middle. Pro sports arenas are not just for sporting matches today – the newest ones are retail centers as well – and like airports, another example of the morphing of public spaces into retail spaces.

Both markets are undergoing huge transformations – and both are immune from the online-shopping effect, so digital signage in entertainment and performance venues are poised to see a huge spike in demand.

DOOH A new media network is born

The rise of the DOOH (digital out of home) network has been one of the most important developments in both the advertising world and digital signage. The goal of the DOOH network is to create a screen-based network that delivers a place-based “audience” to an advertiser, just as a TV network does. Only with the rise – and ever-increasing affordability – of digital screens has DOOH taken off, and new networks are proliferating in transportation hubs and in retail stores and malls particularly, funded by the advertising revenue of the media network.



Faith centers and houses of worship

Increasingly, worship center administrators and leaders need to communicate with their staff, volunteers, and most importantly their congregation members when they're not in the main worship room or meeting rooms. Communication today means taking your message where people enter the building, attend special events such as weddings, or circulate to classrooms or childcare rooms.

Key to display and imaging solution flexibility, for any faith application, is following today's most important best practice: sourcing solutions from a supplier that offers world-class LCD flat panel displays, stunning new-generation LED walls, and the most versatile laser projectors. (And in the worship space, even remote cameras and video tools for streaming and video production can harness the power of AI and tie into digital signage systems.)

Best Practice:

Include your entire worship campus in your AV and communication planning

Multi-site campuses have been a big trend for faith communities. Today there are more than 20,000 multi-site faith communities in the U.S. Having more than one building for services is now more affordable, due to new generation AV tools that allow for simulcast or video content playback from one venue to one or more other locations, sometimes called satellite campuses.

But empowering your congregation wherever they are, is not just about "remote" attendance. On all parts of your faith campus, you can alert members about potential emergencies and instructions to follow, or events taking place in various locations, using new, easy-to-deploy emergency response and digital signage messaging systems.

Curating your entire digital signage ecosystem: Our solutions

For the workplace, college campus, worship facility, transportation hub, entertainment venue – any application that needs better, brighter, more robust imaging – Sony is the market leader. Our LCD displays, direct view LED, and laser projectors deliver results.

Our expertise and creative DNA have led the way in pro AV, decade after decade, and our award-winning products are found in all applications, spec'd in by the country's top AV and digital signage design consultants and installed by the top companies, universities, sports arenas, concert halls, and faith centers.

Professional BRAVIA 4K HDR displays

Bring the spectacular depth and quality of BRAVIA to your application with the latest range of ultra-slim and energy-efficient Professional HDR Displays.

Available from 32" to 100", our line-up offers all the technological performance and style you'd expect from Sony. Installation-friendly,

easy to mount, and easy to manage, they're ideal for your digital signage messaging and rich content in a wide range of environments, from retail spaces and restaurants, to entertainment venues and sports facilities, to schools, faith centers, and communal areas of any facility.

For digital signage rollouts, time and labor are costly, so being on top of installation and deployment costs is crucial to success.



BRAVIA's advantages for digital signage:

To superior imaging quality, add easier content deployment for BRAVIA: the SoC option is based on Android TV, and is unique in that it benefits from a vast ecosystem of device makers incorporating the latest in SoCs, sensors, peripherals, and newer software technologies like voice, speech to text, and artificial intelligence (AI). Whether it's the brilliant image quality of 4K/UHD resolution, Android and HTML 5.0 software platforms, customization via Pro Setting mode, extensive API's, rich I/O, or the versatile orientations (portrait or landscape) with tested reliability, Sony BRAVIA Professional Displays define today's display choice best practices for digital signage.

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Sony solutions have, at every step in the process, these two criteria front and center:

1. Sony solutions are easy to mount/install – no external hardware is required.
2. Sony solutions are easy to deploy – they are out of the box solutions, unlike many other providers screens that need custom configuration, causing delays in installation and commissioning, and added installation costs.

For customers with fewer technical support resources Sony offers very easy-to-deploy options, working with CMS providers that distribute solutions on the Google Play Store. For the more technically proficient and resourced client, Sony offers ProMode, empowering end-customers and systems integrators with custom configurations and

with device cloning capabilities to support automated configuration and scaled rollouts.

With all options, the powerful SoC platform in BRAVIA displays enable the smooth running of native applications and compatibility with all the major CMS platforms.

See every detail in 4K

The 4K resolution LCD panel (3840 x 2160 pixels) of BRAVIA displays ensures incredible color, contrast, and realism, with four times the detail of Full HD. All models are HDR compatible, displaying a wider range of brightness levels for a level of detail and realism beyond anything you've seen before.

- Brilliant 4K image quality with powerful 4K X1 processor
- Integrated Android OS, no need for an external media player
- Flexible IP control and monitoring with open API

- Supports both Google Chromecast(TM) and Apple Airplay 2 screen mirroring
- Pro Mode provides custom settings to maximize efficiency with power scheduling, anti-tamper, and more
- Copy custom settings to multiple screens via USB memory
- 24/7 operation and reliable high-brightness panels

Sony harnesses the power of the latest software, to power your digital signage, because our solutions tap into the synergies of:

- The Android OS – the most elegant and app-rich OS in the industry
- Integrated simple signage solutions
- Enterprise scalable digital signage content management software solutions
- Pre-built signage templates
- Signage software ecosystem with reliable partners
- The best API's, to ensure better software-software and software-hardware interoperability and smooth functioning
- Not one, but an ecosystem of touch system & interactive digital signage options

Crystal LED video walls

For the most stunning digital signage, architecturally integrated and scaled to any space.

Sony's Crystal LED C-series and B-series turn the world's biggest ideas into thrilling visual reality – for spectacular digital signage and rich content in sports facilities, control centers, theme parks, museums, and galleries, to corporate lobbies, planetariums, and more.

Crystal LED harnesses the unparalleled power of:

- Spectacularly immersive high brightness images with unprecedented depth and detail
- Extraordinary contrast, HDR-ready – the tiny size of each micro-LED element, combined with 22bit Super Bit Mapping, results in an extraordinary contrast ratio of more than 1,000,000:1 – far beyond the performance of conventional LED array systems – for smooth, natural tonal gradients
- Crystal clarity, with no image artifacts or picture noise
- Exceptionally wide viewing angle, with no color shift from any viewpoint or angle

- Seamless images on any scale, with no visible gaps or tiling lines between display modules

Realistic color from any angle

The Crystal display achieves a remarkably wide color gamut for rich, accurate tonal reproduction. An extra-wide viewing angle ensures that everyone in the room can enjoy an uncompromised visual experience wherever they're standing.

Additional benefits:

- More creative installation options
- The modular display gives system integrators exceptional installation freedom
- The slim, light Micro LED panels are easy to install without needing special skills or costly jigs and other complex equipment
- Freely Scalable
- The modular system makes it easy to create custom large-scale display solutions to fit any space
- Flexible installation
- Slim, space-saving panels broaden installation options, including wall-mounted – or even

curved. Flexible 100/240 V AC powering requirements

- Free rear space
- Installation doesn't require access space behind the cabinets, freeing up more room space
- Quiet and energy-efficient
- Energy-efficient Micro LED panel technology allows fan-less design

Crystal LED: C-series, or B-series?

C-series displays are designed with high contrast in mind. Enjoy deep blacks and rich colors in a range of environments, including showrooms, entrances, and lobbies.

B-series displays major in brightness, making them ideal for installation in brightly lit environments such as corporate lobbies, virtual sets, and production backdrops.

Both C-series and B-series are available in two different pixel pitch sizes (P1.26mm and P1.58mm) to suit different applications.



X1™ for Crystal LED

The new Crystal LED series is equipped with our high-performance image-quality processor, "X1™ for Crystal LED," incorporating the latest LED control technology developed for our pioneering Crystal LED, alongside the signal-processing technology praised in Sony's BRAVIA TV series.

Professional laser projectors

New-generation laser projectors have given rise to new applications using projection for digital signage – because the lamp-free, better TCO (total cost of ownership) advantages of laser are nothing short of revolutionary. And some digital signage applications need the larger-screen-size-for-the-budget and “project onto any surface” advantages of laser projectors.



But all laser projectors are not created equal. Our laser projectors – both the 3LCD series and the 4K Pro SXR series have proven themselves in the most rigorous, in-the-field use cases, where they outperform other LCD or DLP projector manufacturers. Sony stands apart in image quality, range of lumen output options, and superiority at the most demanding applications in visualization, simulation and entertainment markets.

Our 3LCD series ranges from 5,000 to 13,000 lumens color brightness, with reduced maintenance, consistent brightness, networked control and monitoring, easy edge blending, versatile lens options, and generous lens shift range. Their smart energy-saving features drive down operating costs while reducing environmental impact.

These models have proven to be a favorite for higher education and corporate applications time and time again.

Every projector in our SXR projector line-up delivers stunning high contrast, native 4K images. Cutting-edge Sony imaging technologies, including the Sony-exclusive SXR chip, provides native 4K resolution and high contrast ratio. This allows the SXR series to effortlessly reproduce high-brightness images with stunning

richness, color, and detail in a remarkably compact chassis. SXR projectors also provide high frame rate for ultra-smooth pictures with minimal motion smear. Every detail is clear, with no jagged edges or visible pixels.

Whether for flight simulation in pilot training or sharing a finely detailed visualization for an automotive design or a command/control application, our SXR projectors provide the very best picture available in the market today.

Creative, projection-based digital signage for any venue. Everything you need.

From our ultra-compact and mid-size to our brightest large-venue models, all our 3LCD laser projectors deliver outstanding picture quality plus advanced operational features:

- The proprietary Z-Phosphor® laser light engine delivers 20,000 hours virtually maintenance-free. Our exclusive Intelligent Settings automatically tailor brightness, color, and cooling to your specific application.
- Our BrightEra® 3LCD projection means brighter, more vivid colors than single-chip projectors.
- Unique Reality Creation achieves the maximum picture quality, no matter what your original resolution.

For customers, partners, and consultants: Sony's value proposition

What sets Sony apart? We bring award-winning expertise from the broadcast, gaming, movie production, and digital cinema industries to pro AV. For any application, in any of the many AV markets, Sony is the only manufacturer that makes all display formats and multiple camera options, leverages AI-production tools, and contributes audio solutions.

But our value proposition is not just about world-class, gold-standard products. We work collaboratively with our partners, resellers, integrators, distributors, architects, designers, and of course, our end-user customers, to mindfully curate complete solutions. And our commitment and focus span every business touchpoint, from before a sale is even made through implementation, and even post-sale.

Our customers

Sony is committed to helping you curate your entire AV ecosystem. This makes your life easier, enabling you to optimize AV solutions from one proven and trusted source.

Our partners

We work closely with our channel partners to help bring best-in-class products and solutions to market by leveraging our dealer programs and promotions, and ad and content marketing assets.

Our consultants

Whether you are an architect, consultant, design engineer, or AV integrator, you can find technical information, resources, Building Information Modeling (BIM) content, case studies, eBooks, white papers, webinars, and more at pro.sony/consultant-portal

Sony – the smart choice

- Superb product quality, from the brand leader across every video, audio, and display technology
- End-to-end solutions covering the entire AV ecosystem: image capture, audio, video, presentation, and collaboration
- Price and TCO advantages
- Simple, intuitive operation
- Flexible integration
- Compatibility with 3rd party manufacturers
- Professionalism and thoroughness
- Partnerships with our customers
- Partnerships with our channel
- Pre- and post-sales support

Why Sony?

We can be a valuable partner to help you or your customers unlock their potential. Beyond products alone, Sony offers its users and integrator partners gold-standard support, and value-add programs.



Customer Loyalty Program

Rewards end-user customers who have purchased combined quantities of our select BRAVIA Professional Displays, Professional Laser Projectors and PTZ Network Cameras.

[Customer Loyalty Program >](#)



Advanced Replacement Program

Customers that may experience a problem with a BRAVIA Professional Display or VPL-Series Professional Laser Projector (excluding VPL-G, VPL-H, VPL-W models) while still under warranty may be entitled to receive a replacement unit at no cost in exchange for the return of a unit that is determined by Sony to be defective.

[Advanced Replacement Program >](#)



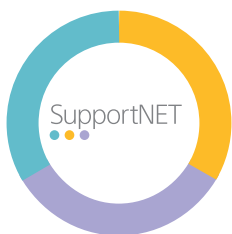
Zero-Percent Finance Program

Turns a customer's wish list into reality with a Sony-sponsored lease financing program available from DLL, and take advantage of 12-month, 0% financing on select Sony professional products.

[Zero-Percent Finance Program >](#)

Service & warranties

- Product information for each model is readily available on the **pro.sony** website, including features, specifications, and accessories, in addition to resources including operations manuals, softwares, and firmware.
- After purchase, end-user customers can register a new product to receive information regarding new firmware upgrades, product trade-in programs, and general updates to help get the most out of their new gear.
- All of Sony's professional products are backed by our products and parts professional warranty, ranging from one to five years.
- For post-sales support, our service centers and field service engineers offer responsive repair and maintenance services. Telephone support is available Monday through Friday from 10am to 6pm ET.
- Our SupportNet service contracts go beyond a standard warranty with access to expert technical assistance.



SONY



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