

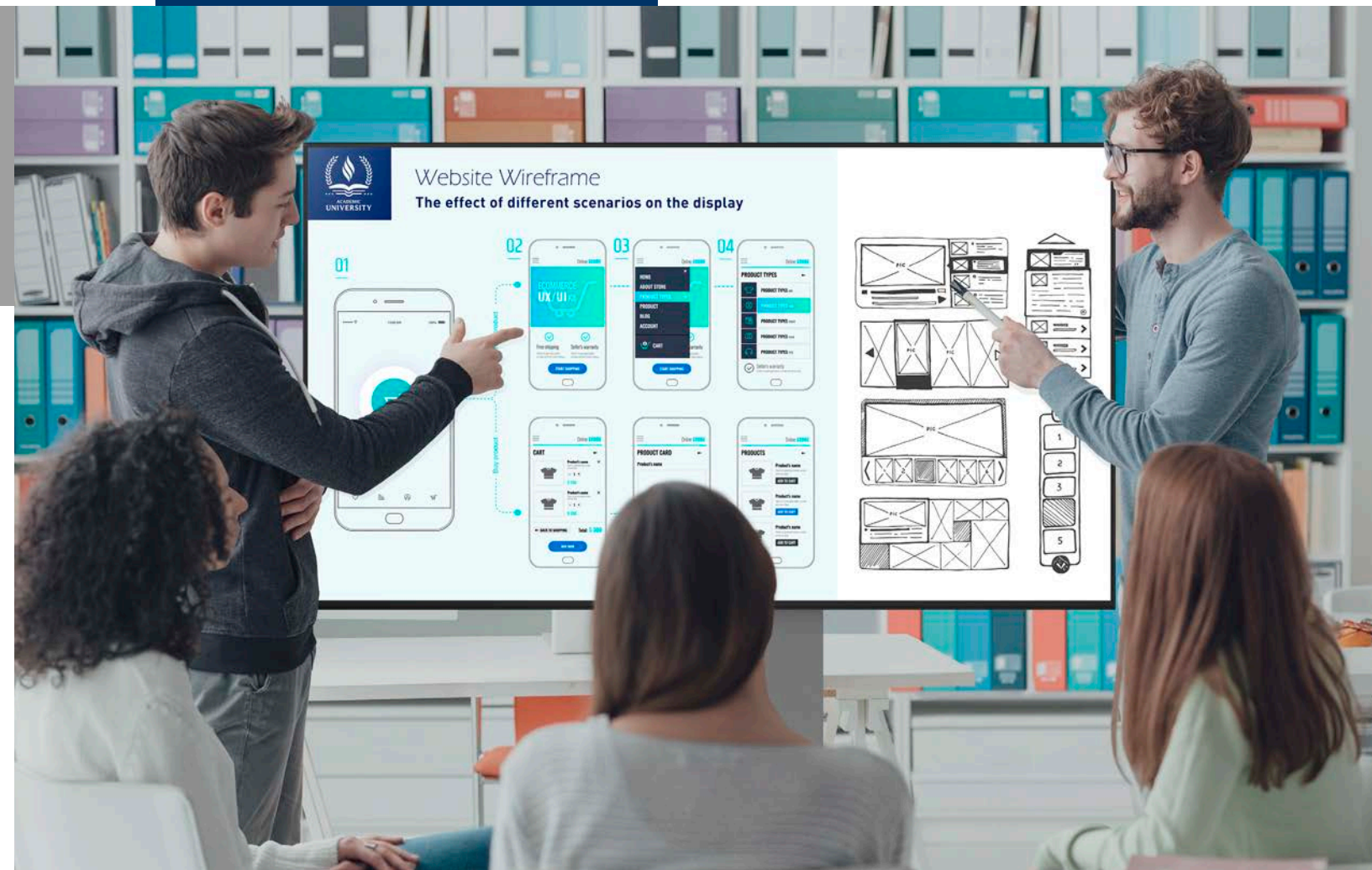
BRAVIA PRO DISPLAYS THE BEST KEPT SECRET

Sony Electronics' Vice President of B2B Rich Ventura sheds light on image quality, digital signage, collaboration and integrated partnerships.



SONY

SHEDDING LIGHT ON BRAVIA PRO DISPLAYS' BEST KEPT SECRETS



Those of you who already know Rich Ventura from his nearly 20 years at NEC Display Solutions and his work with the Digital Signage Federation know that he is passionate about the audiovisual industry. He is a tireless spokesperson helping to educate the integration, consultant and end-user communities about every aspect of displays. From pixel pitch and image quality to connectivity and distribution to applications and business models, Ventura has a finger on the pulse of the here and now and a keen ability to project into the future. You might also know that he is not at all soft-spoken. In June 2020, Ventura joined the team at Sony Electronics' pro division as vice president of business-to-business.



He says that Sony BRAVIA® Pro displays and other solutions under the Professional Solutions Americas moniker are a best-kept secret. For starters, Ventura says BRAVIA

Pro displays have a built-in system-on-a-chip. "Just look at the breadth of the ability we have with SoC and the technology that it can run—whether it's collaboration boards or collaboration software, digital signage, communicating with control platforms or screen mirroring, to list just a few—it's all built into the display." Undeniably, it's no secret that BRAVIA displays have always been known for outstanding image quality and performance. "We've got a really smooth, clear and well-defined picture quality," Ventura says. "Then add to that the great warranty and the unbelievably low failure rates that we have in our product." Sony Electronics' pro division offerings extend beyond displays. "What hopefully everybody has seen

since I've come on board is that I'm not a quiet individual," says Ventura. "When I say, 'It's the best-kept secret,' I mean we need to do a better job talking about how robust our displays are. I think a lot of people don't realize just how powerful Sony really is." In the following pages, Ventura shines a bright light on Sony's BRAVIA Pro image quality, digital signage, collaboration and integrated partnerships.

If there's one thing that is not a secret, it's the image quality and performance delivered by Sony's 4K BRAVIA Pro displays.

"There are three key things that we talk about when it comes to the BRAVIA Pro displays," says Ventura. "The first one is X-Reality PRO, which provides upscaling to a 4K-quality image.* It really gives us as close as possible to true, 4K-quality image, sharpened and refined, in real time." This is particularly important given that a lot of content is not 4K. Unique to Sony, X-Reality PRO picture processing upscales every pixel for remarkable clarity. Pixels are analyzed and images are sharpened and refined for incredible realism. Patterns in images are compared with patterns stored in a unique database to sharpen each pixel. "Then you add in X-Motion Clarity, which gives us that smooth on-screen

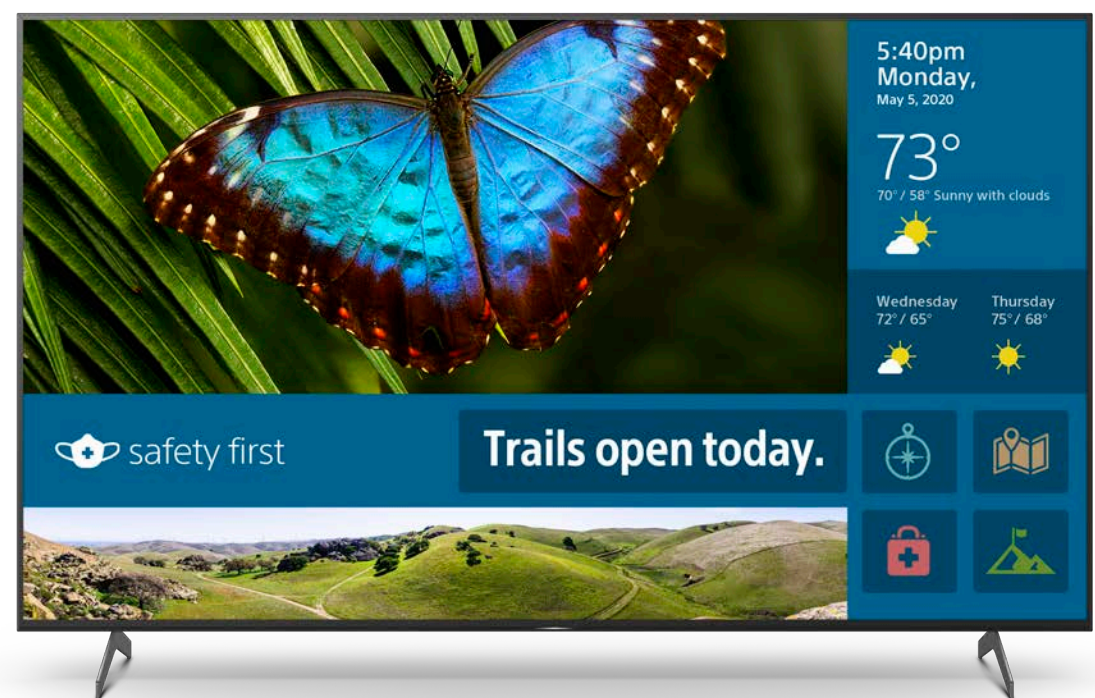
Sony BRAVIA Pro Displays
 Sony Professional displays feature HD, 4K and 8K* resolution models with screen sizes to suit every application. Ideal for digital signage, screen mirroring and a range of professional solutions, these displays feature innovative LCD, HDR and OLED display technologies for superior image quality with easy operation, extensive integration options and low ownership costs.

BRAVIA BZ40H Series 4K HDR Professional displays offer outstanding picture quality with high brightness and contrast in a sleek new cosmetic design that's ideal for commercial applications. They're also packed with powerful features: a new SoC platform for increased performance, Android Pie operating system with flexible software options, Wi-Fi 5 GHz support for less interference and high-speed connectivity and Bluetooth 4.2 for fast data-transfer speeds. The displays also provide flexible remote control and support Apple® AirPlay® 2 and Chromecast™ for content sharing.

*8K: 7,680 x 4,320 pixels. 4K: 3,840 x 2,160 pixels.

action," says Ventura. "If you've got images flying across the video, it remains smooth and there's no jitteriness to it. It really maintains that smooth, natural reproduction." The third one is TRILUMINOS Display, says Ventura. "With

TRILUMINOS Display, we're mapping colors for a wider color palette. We're faithfully really reproducing those colors that you would see in the real world, so it's very vivid with lifelike hues and tones." TRILUMINOS Display is powered



*Upscaled, simulated and enhanced 4K images will vary based on source content.

BZ40H series
BRAVIA 4K PROFESSIONAL DISPLAYS

Applications



Corporate

Conference rooms, reception areas, lobbies



Higher Education

Classrooms, meeting rooms, campus wayfinding, digital signage



Retail

Digital signage messaging, Showroom



Public Spaces

Digital signage, wayfinding, emergency alerts

Picture quality

Brighter highlights
deeper blacks

Full Array LED with Advanced Backlight Technology.

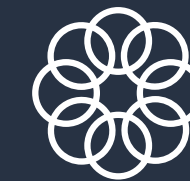


Widest range
from dark to light

Balanced backlight control with X-tended Dynamic Range.

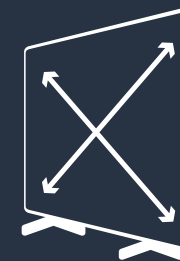


X-Motion Clarity™
Smooth, clear motion



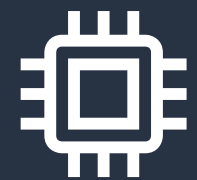
TRILUMINOUS™
Display delivers a wide color gamut
Natural looking images

Vivid color from any angle
Wide viewing angle



Powerful
X1 4K HDR processor

Object-based HDR remaster, Dynamic Contrast Enhancer, Precision Color Mappings.



by Sony's 4K HDR Processor X1, which cleans and refines picture signals using advanced algorithms to cut noise and boost detail. Even lower-resolution images are upscaled closer to 4K with lifelike color and textures.

"One of the great things about Sony is having a TV background in a consumer space where we're known for really high-end color reproduction and video," says Ventura. "We've brought the functionality and features into our BRAVIA Pro displays."

KEY APPLICATIONS

The image quality and performance delivered by BRAVIA Pro displays meet the demanding needs of any vertical market, including retail, hospitality, corporate, museums and education.

"In talking with our customers, we're understanding more about how they are using our product and how the functions and features become really important to them. An area that has been interesting to listen to is when they start talking about their brand. We all know that when you talk to a retailer, the most important brand is their brand. The fact that the colors

are right, the fact that we have good alignment with the palette for their logos, and the fact that it's building a vibrant image is critical for them," Ventura explains.

Accurate color branding is equally important in hotel, corporate and university lobbies, and in meeting rooms.

Experiential digital signage is another example where image quality and performance are key to deliver an expected outcome.

"If you've got content that is very vivid, or content with lots of moving imagery, then we start talking about building experiences," Ventura says. "Static signage doesn't deliver on an experience. "Where you're seeing digital signage being impactful is drawing the audience in, and that becomes very valuable."

Any application for which faithful color accuracy, detail, smooth motion and fast response time matter, the BRAVIA Pro line delivers.



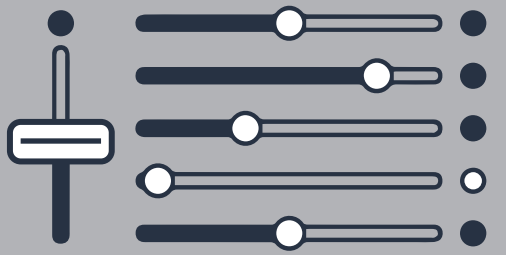
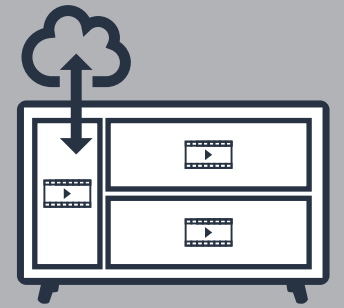
WANT MORE?

Hear more of Rich Ventura's interview on BRAVIA Pro Displays, the Best Kept Secret: Image Quality and Performance.

Functionality

No need for an external PC or media player

Integrated with signage player for dynamic web-based content and flexible HTML5 support



Pro Mode Custom Settings

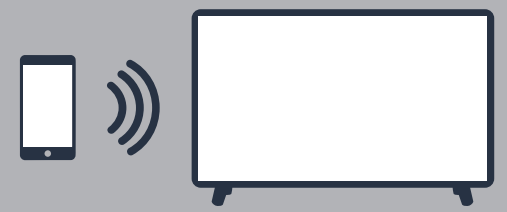
Maximize efficiency in corporate, education, hospitality, retail

Power scheduling, energy savings, remote control, anti-tamper, initial/max volume, welcome screens & more.

Flexible IP control and monitoring

Open API user friendly for developers and supports IP control by the most popular, industry leading systems

Free BRAVIA apps for simple IP control, power management and digital signage.



Mobile device mirroring & control

Works with Apple Airplay 2 and Google Chromecast

Soft AP support for Wi-Fi access point, eliminating the need for routers in hotel guest rooms.

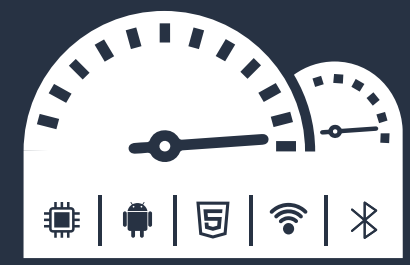
Integrated BRAVIA meeting software

Centrally manage and control all connected displays to help improve meeting productivity.



Performance

Industrial design



- Powerful SoC Platform for fast processing speed
- Familiar Android UI and flexible apps
- HTML for dynamic signage applications
- High-speed 5GHz WiFi with less interference
- Bluetooth 4.2 fast data transfer speeds



- Symmetrical design with ideal weight distribution
- Rugged structure enhanced on all sides and on back cover
- Easily accessible side terminals
- Reliability tested for portrait, tilt, and 24/7 operation



A Complete Digital Signage Solution

Pro Mode transforms BRAVIA Pro displays into a quick and easily customizable solution to suit different environments. Android TV lets you do more, with the display's intuitive built-in software platform broadening control and customization options even further. Creating attractive digital signage is simple—mix and display media files and online content with no need for additional hardware. A wide range of application programming interface options enable remote control/monitoring and integration with external systems.

Android TV: Discover a world of apps and online content powered by Android. Easily share content with Google Cast.

Google Chromecast Built-in: Cast videos and apps from a mobile device directly to BRAVIA with Google Chromecast. Just tap the Cast button on your Android or iOS device screen and instantly enjoy a super-sized view on BRAVIA.

Easily Create Digital Signage: Integrated support for HTML5 makes it easy to produce compelling digital signage. Combine graphics, text, video and live web content to create attractive signage in minutes, with no extra hardware or special training.

Quick set-up with Pro Mode: Customize and store display settings and features, then copy those settings to multiple displays via a USB flash drive.

Versatile Remote Control: Control BRAVIA remotely—including on/off, input signal select and volume adjust—over IP via RJ45 by web API.

For more than seven years, Ventura held several roles—including as chairman of the Digital Signage Federation, during which time he became the leading expert on all things digital signage. “A big part of bringing me on board at Sony was to deepen every aspect of our digital signage commitment,” says Ventura. “What we’ve seen as an organization is that there is an opportunity to grow and showcase how our technology is a game-changer in the digital signage space.”

The first step for Ventura and his team was to ensure that existing products and platforms were easy to deploy, and to know how to drive value. “That’s done through alignment with key partners—key market-makers—within the signage space,” Ventura says. “And it’s about

becoming stronger stewards and becoming a stronger voice in the industry.”

The signage market is extremely important for Sony Professional. “We look at our technology that we have today—whether it’s our video quality, the built-in SoC, the strategic

alignments such as working with different [content-management systems] companies, our web-based [application programming interfaces], control capabilities, and other features—everything is aligned,” Ventura says.

AT THE CORE

Image is everything. “You’re only as good as what the image looks like on the screen. You can have the absolute best content in the world, and if you don’t have the right display to show it, then the content looks flat,” says Ventura. “You could have the worst

content in the world, and if you have an amazing display, then you’ve got a fighting chance.” Consumers only see the screen. “That makes or breaks the engagement, and makes or breaks the strategy.”

All the image quality and performance features discussed earlier are critical to digital signage applications. Color mapping with TRILUMINOS Display, X-Motion Clarity for fluidity of the video and X-Reality PRO to deliver the best 4K image add up to delivering a strong experience. “The key thing about signage is the experience—what you gain by engaging with that screen, whether it’s an improved impression of the retailer or making sure that the yellow shirt that’s showing on the display is actually the



same yellow when I go grab the shirt. Those are all critical success factors with digital signage, and what we've done with our displays—having that color quality, crispness, true 4K and making sure video is not jumpy—is going to be critical for a successful digital signage deployment," Ventura says.

BUILT-IN

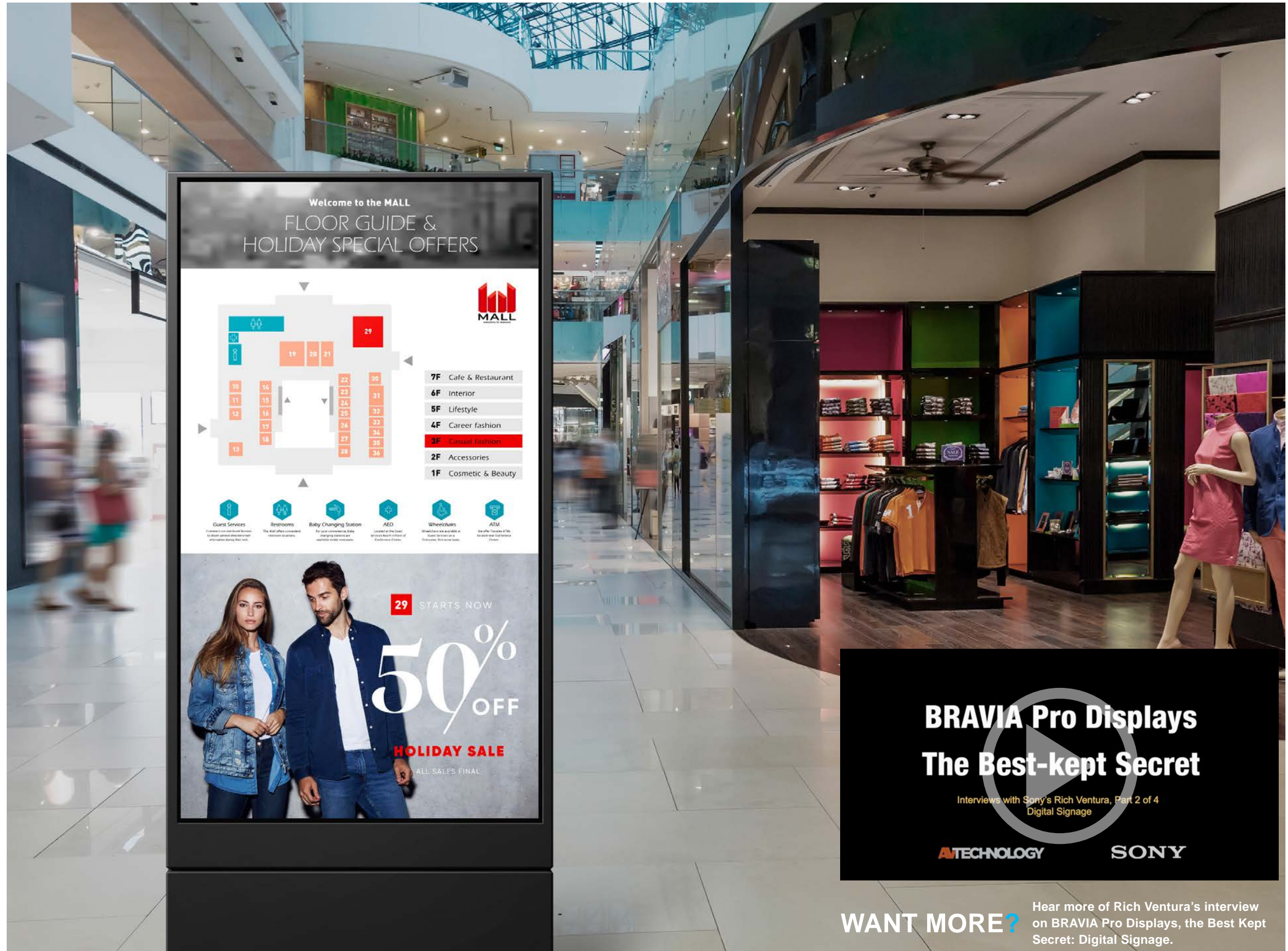
SoC platforms have dominated the digital signage industry in recent years. All BRAVIA Pro displays work on the Android operating system, and have a built-in SoC providing a great deal of flexibility for various applications and use cases.

The idea behind SoC is to have computing embedded inside the display. "And that computing can serve multiple levels of tiers of signage. It could be simplistic, all the way up to extremely complex," says Ventura. "This also allows us to work with a lot of different types of software solutions."

From Google Chromecast and AirPlay, Wi-Fi and Bluetooth capability to HTML5 content templates, the BRAVIA Pro is remarkably flexible. "If someone says, 'I need a very simple digital signage platform,' we have a solution with HTML 5 templates. Or if they say, 'I need something robust,' then we've got the partnerships that allow us to tie in a more robust computer behind our display," says Ventura.

From setup to use, everything about BRAVIA Pro for digital signage is simple and easy to use. "We have the ability of getting you up and running quickly. Then you add in the Pro Mode capabilities, which, with a flash drive, you have the ability to store the features that you need," Ventura says. "You plug that into the display, and you can go from display to display to display with a thumb drive during installation to make sure it's exactly how you want the monitors set up."

This brings us back to why BRAVIA Pro is a best-kept secret—each of those functionalities and features are really important.



Welcome to the MALL

FLOOR GUIDE & HOLIDAY SPECIAL OFFERS

- 7F Cafe & Restaurant
- 6F Interior
- 5F Lifestyle
- 4F Career fashion
- 3F Casual fashion**
- 2F Accessories
- 1F Cosmetic & Beauty

29 STARTS NOW

50% OFF

HOLIDAY SALE

ALL SALES FINAL

BRAVIA Pro Displays

The Best-kept Secret

Interviews with Sony's Rich Ventura, Part 2 of 4
Digital Signage

AT TECHNOLOGY **SONY**

WANT MORE? Hear more of Rich Ventura's interview on BRAVIA Pro Displays, the Best Kept Secret: Digital Signage.



Tools that enable collaboration among teams in the office or college campus are more important than ever. Today, that includes the ability to set up meeting rooms and classrooms to connect remote participants in clear and meaningful ways.

“Today we have to look at, ‘How do you engage? How do you interact? How do you collaborate?’ We’re not in these little huddle spaces that we’ve been used to and grown accustomed to,” Ventura says. “We’re all in the world of being on Teams™ and Zoom™ all day long.”

Sony has a robust product portfolio to deliver complete collaboration spaces. “Our product portfolio is not just about displays, and it’s not just projectors. You add in [pan-tilt-zoom] cameras, you add in beamforming microphones and you add solutions like Edge video analytics. All of those play in together when we’re talking about those collaborations,” says Ventura. And more best-kept secrets.

Because the BRAVIA Pro displays have Chromecast and AirPlay 2

functionality built in, participants can communicate using a personal device such as a laptop, tablet or smartphone without having to install software. “Then you add in partnerships that we have—whether it’s working with Crestron®, Extron®, Kramer or Logitech®, there are a lot of the functionalities and features that enhance collaboration,” he added.

Sony is a leading manufacturer of PTZ and remote cameras. Its award-winning camera engine is widely used in competitor products. “Whatever streaming software is being used—having a PTZ camera as backbone is a critical component for collaboration today,” says Ventura.

And particularly important these days, especially for remote collaboration, is highly intelligible

audio. “Having beamforming microphones that are clear and crisp and able to pick up the audio so it sounds like you are in the same room together is critical,” says Ventura. “And today, it’s important that you don’t have to touch the microphones in the room. This amazing technology is another great secret.”

Probably one of the biggest best-kept secrets is Sony’s Edge Analytics Appliance, which launched in 2019. “This is packed with so many advanced technologies that it has been almost too complex to explain, yet on the outside it’s really simple,” says Ventura. “But now is the perfect storm for this product to take over the world of collaboration and remote engagement.”

With artificial intelligence-led technology, the Edge is a quantum leap in advancing the quality of communication and engagement by empowering the presenter to

deliver content like never before. “We’re talking real-time camera tracking, real-time handwriting recognition and utilizing what you want to engage with your audience from a distance,” Ventura says.

“When we look at collaboration and engagement, historically we’ve always looked at education being the space where it happens. In the corporate world, remote collaboration is even more critical.” Corporate teams have always been dispersed throughout a single country or even around the world. This was the case before COVID-19, but teams will be even more spread out after the pandemic.

“Edge allows you to write on any white board and share ideas without needing a touch screen—or even having to think about technology,” says Ventura. A Sony engineer uses the Edge platform in her home office to conduct training sessions. “You would think that she’s in a corporate center with studio cameras.”

Collaboration is more than videoconferencing; it is about an exchange of ideas and having the ability to share visual concepts as they’re being written and drawn in real-time. “That’s what Edge brings to the table—especially in the corporate space. ... Now we can go into a room and it’s very heavily outfitted with Sony tech—whether it’s displays, cameras, beamforming microphones or the Edge,” says Ventura.

Collaboration On Display

Remote PTZ, BOX and POV Cameras: With nearly two decades of experience in IP development within the broadcast industry, Sony’s full range of 4K and HD remote cameras are designed for unattended operation, eliminating the need for additional operational staff. Offering precise and smooth operation, powerful optical zoom and easy IP connectivity, the broad camera lineup is ideal for presentation and lecture capture as well as real-time streaming.

MAS-A100 Beamforming Microphone: Sony’s beamforming ceiling microphone with advanced speech reinforcement technology enables truly hands-free lectures and presentations. The comprehensive solution employs audio volume stabilization and clear audio processing to produce sharp recordings. The dual-output channel enables speech reinforcement and recording simultaneously. The dedicated “rec” channel records with a wider capture range and optimal intelligibility—perfect for lecture capture.

REA-C1000 Edge Video Analytics: With AI-led technology, the Edge Analytics Appliance creates impactful video presentation content that previously would have required significant time, expense and human resources to produce.

Optional software licenses include powerful chromakey-less CG overlay, PTZ auto tracking, close-up by gesture, focus area cropping and innovative handwriting extraction technology that ensures any words and diagrams written on a board or screen remain in full view to the audience—via augmented reality—no matter where the speaker is standing. It’s also easy for remote viewers and those playing back the presentation at a later date to become immersed in the content too, as the presenter is overlaid and the content is never compromised.

BRAVIA Pro Displays The Best-kept Secret

Interviews with Sony’s Rich Ventura, Part 3 of 4
Collaboration

TECHNOLOGY SONY

**WANT
MORE?**

Hear more of Rich Ventura’s interview on BRAVIA Pro Displays, the Best Kept Secret: Collaboration.

INTEGRATED PARTNERSHIPS



Today it's more important than ever for every device to integrate seamlessly with others and with control systems—whether it's a single room solution or in the network. "If you make it hard and cumbersome, people aren't going to buy your product," says Ventura.

"One of the things that I heavily appreciated within Sony when I came on day one was our relationships that we have with the Crestrons, the Extrons and the Kramers of the world."

Sony is continuing to strengthen its relationships with vendor partners, integrators and customers by understanding their needs and strategies. "To say that you're certified with anybody is not the right answer," says Ventura. "The first answer should be, 'What are we trying to certify? Why are we doing this? What is the value to our customers? What is the value to our business? What is the value to our partners?'"

Sony has built strong relationships and works closely with major control companies. Kramer has built software applications that can reside on BRAVIA Pro displays, allowing for communication to cloud

systems. Relationships with Crestron Electronics and Extron Electronics ensure that they have access to all of Sony's control codes. "Then we're looking at how to get deeper involvement in the programs that they have," Ventura says.

"When I look at partners, the terminology I use in the organization is, 'Friends, family and blood.' 'Friends' are companies that we can shake hands, we see each other at events, we do some things together. 'Family' is where you need to be when you talk about a partner. We work well together and we have those connections, we do things together. 'Blood' is where if one is not there, then the other one doesn't work. That's where you want to get to, and that's where we take the things like control and signage—we need to get to that level. We're doing a really great job of engaging with

the Crestrons, the Extrons and the Kramers of the world so we can get to that point of truly having that full, blood-level relationship," Ventura explains.

Even the biggest of electronics companies can't have the silver bullet for everything, and that's where leveraging partnerships comes into play. "Logitech has such a great reach in the collaboration space, and the primary goal in our relationship with them is, 'How do I sell more BRAVIA Pro displays?'"

BRAVIA Pro displays are certified with Logitech. "The fact that we are a recognized partner—especially as we look at our integrators, our channel partners and our customers that are very large Logitech partners—it becomes really important." Where does Logitech stand in the friends, family and blood line? "Logitech is much more 'family' than a 'friend.' We have an understanding," says Ventura. The next step in the relationship is driving the message within the channels. "Hey, buy a Logitech collaboration kit? Buy a



Sony BRAVIA Pro display. Buy a BRAVIA Pro display from Sony? Buy a Logitech collaboration kit.' That should become very tightly wound. You're going to see a lot better engagement and a lot more of that drive."

In addition to continuing to deepen its relationships with the integration channel, Sony is embracing consultants. "We're working very closely with the consultants to make sure they have a good understanding of our capabilities, and we're giving them tools they need so our product is specified in these digital signage projects and really showcased in those applications that are needed," Ventura says. Architects, consultants and design engineers are clearly an emphasis for Sony with the launch of the ACE portal.



WANT MORE?

Hear more of Rich Ventura's interview on BRAVIA Pro Displays, the Best Kept Secret: Integrated Partnerships.

BRAVIA Alliances

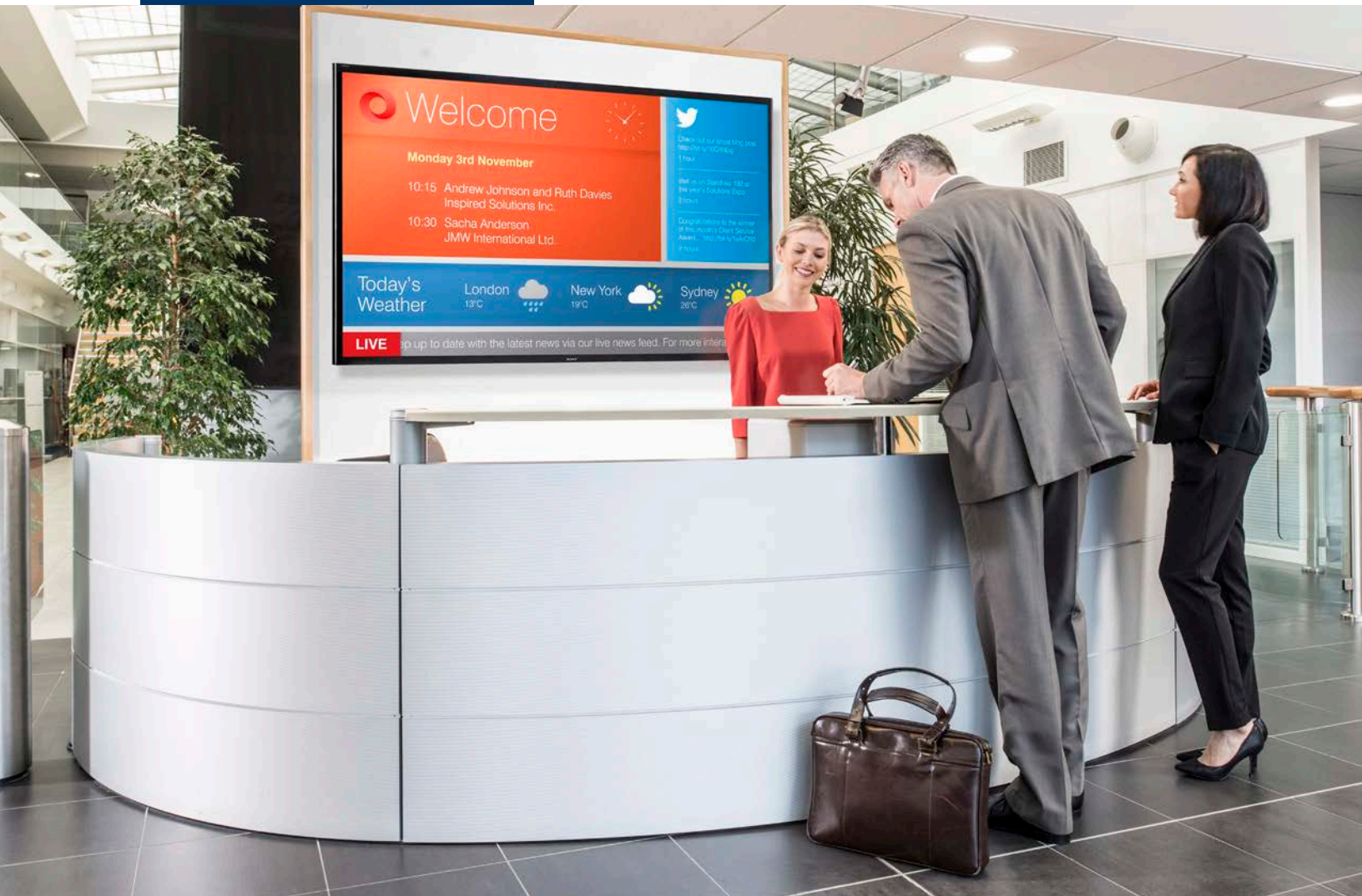
Sony BRAVIA professional displays are certified for seamless integration with systems from several of the world's leading specialists in audiovisual control and room automation. Embedded software in BRAVIA ensures quick, easy installation and setup in today's AV environments. With less hardware clutter and intuitive operation, staff can stay focused on business with fewer distractions.

Crestron Electronics has carved the path for technological innovation since 1972. Crestron creates automation solutions that transform the way people work and live their lives—making their day-to-day tasks easier and improving efficiency and productivity. Scalable and customized solutions are backed by more than 90 fully staffed offices that provide 24/7/365 sales, technical and training support across the globe.

Extron Electronics' audiovisual signal processing, distribution and control products enhance the experiences of millions of people around the world. Advanced technologies create better-looking images, higher-quality sound, as well as systems that are easier to control and work more reliably.

Kramer has been at the forefront of the Pro AV industry for nearly 40 years. Its award-winning range of Pro AV products and IT management solutions include signal processing and distribution, control, AV/IT management, wireless presentation and collaboration, as well as end-to-end installer solutions.

Logitech is a world leader in video collaboration, providing room solutions and personal collaboration tools to video-enable meeting rooms, huddle rooms and desktops. Simple to deploy, easy to use and affordable, Logitech products deliver razor-sharp video and crystal-clear audio, and work with all leading video platforms.



“ In 2021 and beyond, Sony Electronics’ pro division has an even greater commitment to providing robust technology solutions that build on our already outstanding quality and performance in displays, camera, audio and collaboration products.

We look forward to and are excited about continuing to strengthen our relationships with our channel partners, our vendor partners, consultants and customers—our friends, family and blood.

It’s individual relationships that build a strong partnership.”

—Rich Ventura, vice president of B2B,
Sony Electronics

About Sony Electronics’ Imaging Products & Solutions Americas

Sony Electronics’ Imaging Products and Solutions Americas group develops and manufactures audio and video technologies to enrich a range of professional applications in motion picture production, broadcast, sports, entertainment, healthcare, retail, education and business. In the B2B space, Sony offers high-quality A/V products including laser projectors, direct-view displays, remote cameras, video analytics and microphones to suit diverse needs. The company also provides extensive integration options and scalable solutions for image capture, presentation and digital signage in classrooms, meeting rooms, auditoriums, lobbies, museums, and public venues, that are developed using customer feedback to solve specific challenges and exceed their requirements.