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PUBLISHED BY
SPINWORKZ PTE LTD
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“AV technology is now an inherent part of any luxury hotel in the world today; and its impact is visible in every aspect of the establishment – from guest rooms to the common areas. And it is undeniable that hotel spaces today are expected to be extremely dynamic – both in terms of the usage that it offers to different sets of customers and the inherent nature of the space”.

Sachin Jain, Director of PLAY Technologies

To read more go to our Feature
article on page 46

The past few years have pressed several dramatic changes within the business landscape for luxury hotels across the globe - new policies, inflation of operating costs, an ever-evolving palate of the target market, and an unforeseen global health crisis. However, the forward-looking hotel operators have used this downtime to enhance their facilities to create even more engaging guest experiences. AV systems are at the forefront of these experiences. When designed and integrated astutely, AV systems blend in seamlessly with the surroundings, have proven to heighten the guest experience, all while staying relatively inconspicuous. I hope you enjoy reading our feature that touches on this.



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PUBLISHED BY

Spinworkz Pte Ltd
 71 Bukit Batok Crescent
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Braving Pandemic, Pre-empting Impact



Two years of pandemic has visibly changed the world order into what has popularly come to be taken as 'new normal world.' While most businesses world over got severely impacted by the COVID-induced market disruptions, there have been some enterprises that braved the pandemic by sheer grit and determination, and strategized their business to forge ahead through challenges all around. Networked media systems solutions leader Biamp is one.

SI Asia tries to find from Joe Andrulis, Executive Vice-President of Corporate Development at Biamp on how the Beaverton, Oregon-headquartered AV major managed to stay steadfast and succeed. Read on:

What is Biamp up to in the current "new normal world" - in terms of solutions, innovation, and business focus?

JOE: Our basic business strategy remains unchanged, but the years of disruption caused by the pandemic have certainly affected sectors of our business differently. Live events, hospitality, and building infrastructure were hit hardest and haven't yet recovered fully. In contrast, demand for conferencing solutions has exploded. We've adjusted our development, manufacturing, and sales resource commitments in response to these changes.

How would you want to describe Biamp's continuing through, and with the pandemic?

JOE: The pandemic presented all manner of challenges, big and small. Overall, however, Biamp fared extremely well. In the very early days of the pandemic, we made the decision to aggressively build our business rather than just protect it. We invested in new manufacturing capacity, added massive amounts of raw and finished goods inventory, retained all employees, released dozens of new products, and held prices constant even in the face of rising costs. All these actions let us ship product faster and more reliably than many competitors even during periods of significant supply disruption. Our reward was years of record sales and backlog and countless new customers.

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What specific challenges do you think have impacted Biamp in particular?

JOE: Answering this question fully would leave a very long list. Without doubt, however, the single most difficult challenge has been component availability. We'd often be notified of shortages with little or no notice. Updated component lead times were many weeks or even months long and sometimes there was no quoted lead time at all. To keep shipping product, we either needed to purchase these parts from alternate sources at prices several times higher than normal or re-engineer the affected products to use alternate parts. Neither option was cheap or easy. We spent significant time, money, and attention just keeping our lines running, making resources unavailable for new product development and enhancements where they would normally be invested. But, in the end, we largely succeeded in keeping product flowing.

In the midst of the pandemic, Biamp acquired NEETS. How did it contribute to Biamp's market perception, and brand proposition?

JOE: Neets wasn't our largest acquisition, but we feel it will prove to be one of our most important ones. Biamp has offered control for decades but mostly in support of our own products and not with a complete enough offering to stand as its own product category. This all changed once we acquired Neets. Neets added a very well architected control platform with a complete line of controllers, touch panels, and keypads designed to control all aspects and devices in an installation. The control design software emphasizes simplicity, assisted interface design, and easily extended support for almost any device—all characteristics our customers have made clear are becoming increasingly important to them. Control was one of the final pieces

Biamp was looking to add in its journey to become a full line professional audiovisual solutions provider.

We observe Biamp is getting increasingly aggressive in the domain of video-conferencing, with focused products for both audio, and video. What is the thought process? Please explain...

JOE: Audio conferencing has long been a pillar of Biamp's business. With the rapid adoption of UC services, the importance and use of video conferencing has grown substantially. It was only natural for Biamp to expand our offerings to support our customers as they move to these systems. We are thrilled with our new line of conferencing cameras and audio and video bars. All the products in both new lines deliver the high product quality and superior performance that is a hallmark of Biamp products.

From pure DSPs and boardroom acoustics, Biamp is literally going places in the AV. How would you explain this perceptual transformation?

JOE: We agree! The rapid expansion of our product portfolio, growth in new markets, and entry into new verticals and applications are all part of a well-considered strategy we adopted four years ago to aggressively grow Biamp from its roots as a leader in DSP and audio systems to become a global leader in professional audiovisual systems for all applications and venues.

China having been a big subject of debate, how did it impact Biamp's manufacturing, and sourcing products from the market?

JOE: China has been an important market for Biamp for many years and has become even more important in the last several years. We have made significant investments in the country to expand our capabilities

The different biamp solutions that create a seamless experience in a video conferencing space



there in sales and distribution, product development, and manufacturing. We expect this to continue for the foreseeable future.

Coming to Asia in particular, how has it been for Biamp- a) pre-pandemic; b) during pandemic; and c) post-pandemic - vis-a-vis the Western markets?

JOE: Over the past four years, Biamp's North American business growth has been very steady and very strong. Despite that strong growth, our Asian business has grown even faster. Asia and our other international markets now represent a substantial share of Biamp's overall revenue that we predict will continue to outgrow North America for many years.

Considering Biamp's strong presence in Asia, and typical situation in China- is there a plan to have a non-Chinese manufacturing base in the region? if so, please throw some light on that...

JOE: We already do. Biamp has numerous suppliers, development centres, and manufacturing centres throughout Asia. Our strategy has been to find the best partners and locations to establish our own operations considering all factors, not focus solely on national boundaries.

Biamp set up its India-based Experience Centre for SAARC region. How has it contributed to Brand Biamp in the region? - what activities characterize the centre?

JOE: Our India office is a wonderful example of what we hope to build throughout Asia. Our Indian centre is staffed with skilled local Biamp employees able to provide training, marketing, and sales support for our Indian and regional distribution partners and give Biamp a direct line to our customers to better understand their current and evolving needs. This significantly improves our ability to understand how to better serve customers in the region, making them more successful and growing our business.

What's the road ahead for Biamp? particularly in Asia?

JOE: Globally, we will continue to pursue our strategy to become the pre-eminent professional audiovisual solutions provider by enhancing and expanding the many new products and product categories Biamp has added to its line and integrating them into complete, highly refined solutions. As our international business continues to grow as it has in Asia, we will be able to devote more attention and resources to crafting solutions that address the unique requirements of those markets. It's been an exciting journey and it's only just begun.

Biamp

How Control Room Installations Benefit from KVM



By integrating more and more technologies, state-of-the-art control rooms are becoming increasingly complex and multifunctional. This complexity demands a lot from operators, as they have to monitor several processes simultaneously and, at the same time, manage workflows. To enable seamless operation, it is therefore essential to design flexible workstations and intuitive as well as collaborative operating concepts.

What KVM Adds to Control Room Applications

Pro-AV technology handles large amounts of data. To take the strain off users and technology, KVM solutions create secure and solid infrastructures. They are ideal to optimize the working conditions of both humans and computers. More precisely, KVM systems

help to remove powerful and noisy computers from the actual workstations into technical areas. At the same time, they let users simultaneously operate several computers remotely via a single console. This way, staff can now focus on their tasks and continue to access the remote equipment in real time and without any loss in the image quality. KVM systems can also be seamlessly integrated into typical AV equipment such as media controls to make work in control rooms even more efficient and intuitive.

Flexible and Secure: New KVM Systems for Control Rooms

Leading manufacturers of KVM systems for control room applications Guntermann & Drunck GmbH (G&D) offer a broad product portfolio including solutions



from classic, dedicated KVM systems to IP-based KVM systems. Especially control room applications benefit from applying IP in many ways. Being able to use standard network components makes employing KVM-over-IP particularly interesting, because existing IT installations can be scaled more easily, flexibly and cost-effectively.

G&D have added a high-performance VisionXS extender series and a powerful matrix system in a compact design, the ControlCenter-IP-XS, to their portfolio. With its extensive transmission technology, the manufacturers have made the high-performance KVM-over-IP series even more user-friendly. The new VisionXS uses standard networks with up to 10 Gbit bandwidth and therefore much less compression. G&D's proprietary bluedec lossless video compression transmits pixel-perfect and authentic video resolutions up to 4K60 and improves the user experience many times over.

Experience G&D Live or Remotely

Among other things, G&D will be presenting their latest products at this year's ISE from May 10-13, 2022. In addition to their own booth, the company will also be

sponsoring the Control Rooms Summit on May 10th. The following week G&D will showcase their products in Dubai at CABSAT show. Anyone unable to attend the events can visit G&D remotely and via live video in the ControlCenter-Xperience showroom for a live demonstration of user-friendly functions for perfect control room applications, intelligent control options, and solutions for optimal control of video walls.

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G&D Sales Agent APAC

ControlCenter-Xperience

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 LINEA
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Focusrite Group



Focusrite Group Welcomes Linea Research to Brand Family

GLOBAL: Linea Research has become the ninth brand of the Focusrite Group, joining Focusrite, Novation, Ampify, ADAM Audio, Martin Audio, Optimal Audio, Focusrite Pro and Sequential.

Formed in 2003 by a team of experienced professional audio specialists, Linea Research design, develop, manufacture and market innovative professional audio equipment globally. Specifically, the UK-based designer and manufacturer of professional amplifiers, controllers and software, is responsible for ground-breaking amplifiers, including the world-renowned M Series. Along with amplifiers, their product range includes Digital Signal Processors, audio networking and software products.

Two of the original founders, Davey Smalley, Commercial Director, and Ben Ver, Engineering Director, will continue to lead the business post-acquisition. In a joint statement Smalley and Ver, commented:

“We are delighted to be able to continue the Linea Research success story from within the Focusrite Group. Having seen the support and growth of the brands within the Group, we believe this provides us with a secure foundation to further our R&D efforts and product portfolio, strengthening the Linea Research brand while continuing partnerships with our long-standing OEM partners. This can only be a good thing for our customers, end users and very much our staff.”

Focusrite’s subsidiary Martin Audio is a major customer of Linea Research whose technology is behind the successful iKON amplifier series. iKON amplifiers power Wavefront Precision line arrays that can be seen on live tours and at prestigious festivals, such as British Summer Time in Hyde Park.

This acquisition will strengthen the critical source of supply of amplifier modules for Martin Audio and will enable greater integration of loudspeaker and amplifier technology in Martin Audio products. Simultaneously, Focusrite Group intends to continue to develop the sales of Linea Research products through third-party distribution and to OEM loudspeaker customers.

By extending the Group’s business into new products and markets, which complement its existing offerings, the acquisition is strategically aligned with the Group’s previously communicated aims of growing the core customer base, expanding into new markets, and increasing lifetime value for customers.

Tim Carroll, CEO of Focusrite Group, said: “It is an absolute pleasure to welcome Davey, Ben and the entire Linea Research team to the Focusrite Group. We know the team and the business well given that Martin Audio is a major Linea Research customer. This will lead to many synergies and is expected to improve gross margin for both Martin Audio and the wider Group. Linea Research’s products are globally recognised as best in class and we are all excited about the opportunities and possibilities that lie ahead with the collective expertise of the Linea Research and Focusrite Group R&D and sales teams.”

Focusriteplc

Linea Research



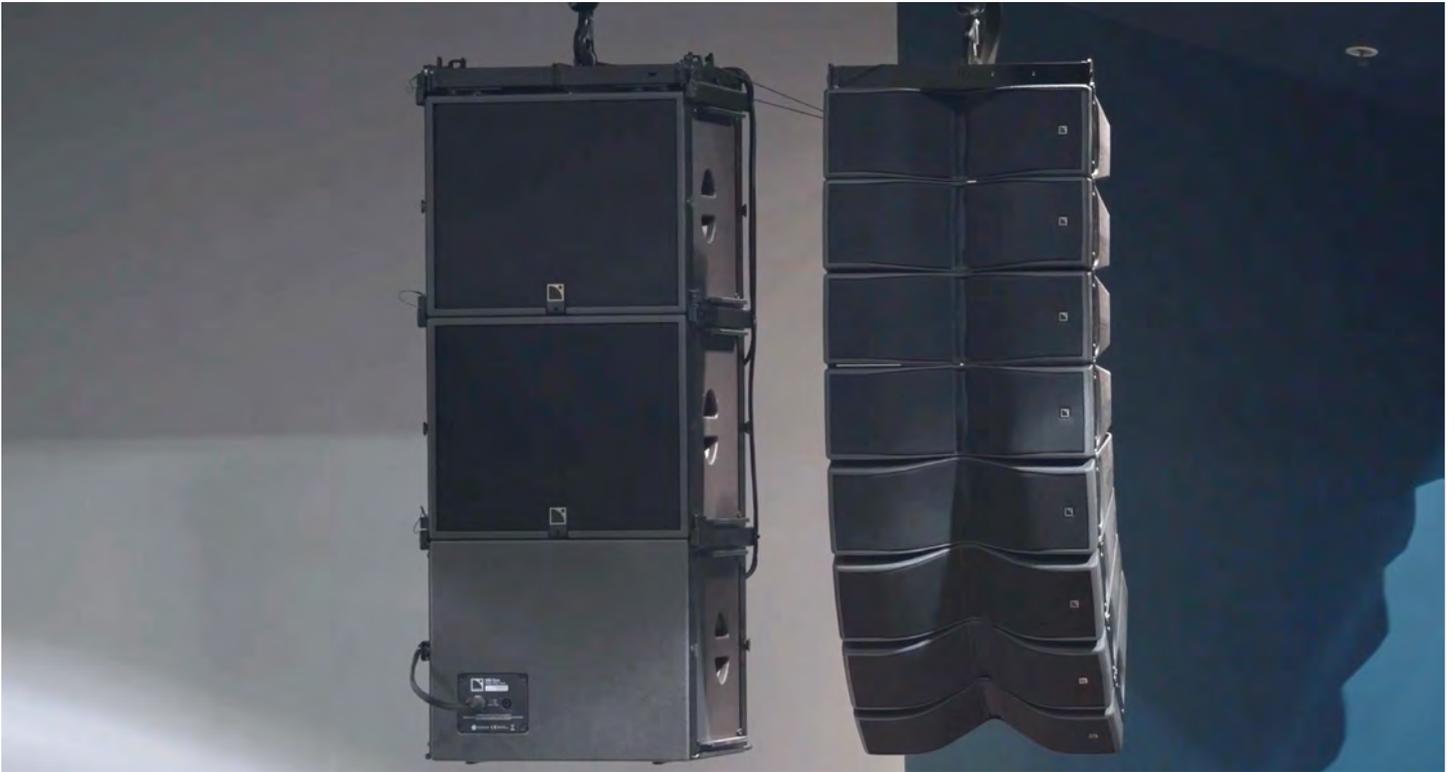
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Versatile Victorian Theatre Upgrades Audio with L-Acoustics

AUSTRALIA: Light & Sound Solutions has breathed new life into Riverlinks Theatre, the largest civic theatre in northern Victoria.

Located in Shepparton, the multi-functional theatre plays hosts to various weekly events: from touring bands and musicians to exhibitions and banquets. In order to accommodate its versatile range of events, the venue recently installed a brand-new L'Acoustics PA system.

Around the mid-2010s, Matt Schroeders, Technical Manager of Riverlinks Theatre, knew that the old system was starting to become a liability to the theatre's regular event production objectives and

users. He developed a replacement proposal for the council which owns and runs the theatre, but was initially rejected. Determined, Schroeders persevered, revising his proposal with further details about the total cost and clearly outlining the benefits of a new system. The council accepted the proposal, and a brand new PA system made its way into its annual budget.

While an event-restrictive global pandemic was a blow to the industry, it offered Schroeders and his team the time to manage the long and arduous process of selecting the new PA system and the partner that would install it.

Just three tenders for a listening demo "shootout" were issued, and Riverlinks allowed each party to demonstrate the system in the theatre. The flexible venue possesses a balcony above a retractable seating system that holds 825 theatre-goers or 450 banquet guests. Thus, the teams had to present a

solution for both room configurations: a flat floor and a tiered seating module.

For a comprehensive review of each of the systems presented, Schroeders and the theatre's technical co-coordinator Peter O'Keefe were joined by the venue manager, a representative from the venue's procurement department, and a non-technical reviewer who could provide an unbiased opinion.

After the shootout, Light & Sound Solutions came out on top with a sound design based around the L'Acoustics Kiva II variable curvature line array. O'Keefe explained, "Kiva II is designed for our kind of venue. It ticked every box without trying. It wasn't being pushed beyond its limits; it wasn't being shoehorned to make it work. The other systems arguably sounded just as good when cranked up, but Kiva II was exceptional at low volumes—retaining a beautiful full-range clarity."

The system, installed by Light & Sound and provided by local L-Acoustics Certified Provider Distributor Jands, consists of 8 x Kiva II enclosures per side flown next to 3 x SB15m subwoofers in cardioid mode to minimise

low-frequency spill onto the stage. Underneath the stage are 2 x KS21 subwoofers which were not part of the original tender shootout.

Both the L-Acoustics Kiva II presented by Daniel Thomas, Director at Light & Sound, and his team shone. They knew that a Kiva II array with six or more boxes and two or three subwoofers came in well under 250kg, which was the preferred weight limitation for the venue.

O'Keefe and Schroeders instantly adored the extra octave of bandwidth that the 21-inch boxes provided and subsequently upgraded the stage infrastructure to house them. "Light & Sound brought 21-inch subs to the shootout, even though this was not part of the brief or budget," recalled Peter O'Keefe.

Light & Sound configured 5 x LA4X amplified controllers with presets for the three main room modes: tiered seating, flat floor, and flat floor with balcony, easily ensuring even coverage, both tonally and in terms of SPL for the venue's various applications, without the need to rehang or adjust the array trim.

Now, as the Shepparton community comes out of pandemic restrictions, the re-opening of the newly equipped theatre is especially welcomed. "We can put on a dance contest on Friday, a networking banquet on Saturday, and a congregation's conference on Sunday. With a potentially diverse programme of weekends like these, our PA needs to be just as versatile," explained O'Keefe. "With this versatile and easily adaptable Kiva II system now installed, the theatre is a true all-rounder in classic country-town style."

Light & Sound Solutions

L'Acoustics





Analog Way Partners with New Indonesian Distributor

INDONESIA: V2 Indonesia, a subsidiary of PT M Cash Integrasi Tbk, is a digital tech company and leading value-added distributor of premium audio-visual solutions for all types of installation projects across Indonesia.

“As a digital tech company focusing on high end products, especially in the audio-visual industry, we are proud to work with Analog Way who shares the same vision of innovation and leadership in the AV digital ecosystem,” said Rudi Hidayat, CEO of V2 Indonesia. “We aim to develop with Analog Way the implementation of innovative technologies with high-end customers in the rental and staging, broadcast and house of worships markets. Let’s take on the future together!”

On the signing of the distribution agreement with V2 Indonesia, Guy de Souza, Analog Way’s Vice President for Asia stated, “Analog Way has always been the preferred choice for our customers in houses of worship and rental and staging. As we look to strengthen our representation in Indonesia, we believe V2 Indonesia is the right partner to grow these verticals with us.”

Headquartered in the capital of Jakarta, V2 has branch offices in Surabaya and Bali.

[Analog Way](#)

[V2 Indonesia](#)

Rahi Expands into APAC with New VP of Professional Services



APAC: System Integrator, Rahi has internally promoted **Paul Mason to VP of Professional Services in APAC.** This move expands Rahi’s

presence across the APAC region and enhances its geographic coverage for professional services and time zone availability.

“I am excited to take on this new role and look forward to building a global organization with consistency, quality, and customer-first principles by applying my experience on both pre-sales and post-sales to bring the best service to our customers,” said Mason of his new appointment.

Based in the Philippines, Mason will lead the opening of a warehouse and new office headquarters. Rahi CTO, Matt Robinson said, “For anyone who has had the opportunity to work with Paul over the past year, you’d have seen his leadership skills in action. Be it working with sales teams on large-scale data centre projects, ensuring proper services delivery, and even coordinating and building new offices in the Philippines, Paul has been an outstanding contributor to the business.”

[Rahi](#)

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IT'S IN THE DETAILS.





180-year-old Church Renewed with LD Systems Installation

INDIA: A beacon of hope on the Chennai coast, St. Thomas English Church (STEC) was once known as 'St. Thomas-by-the-Sea'. This sparkling white Church was built in 1842 and has an Anglican background. The Church became a part of the Church of South India, Diocese of Madras, in 1947 and currently has a membership of around 200 families spread across South Chennai.

The St. Thomas Church received an installation of the compact and elegant LD Systems MAUI 28 G2 by Chennai-based Audio Sciences - a renowned pro audio company specializing in sound, light, backline equipment and live recording, in addition to permanent installations.

Mike Williams, the proprietor of Audio Sciences, who consulted on the installation shared, "The

management at St. Thomas Church were looking to re-energize the premises with a competent and charming loudspeaker system that would deliver top-notch sound for speech during their services."

"We chose to go with LD Systems MAUI28 G2 active column PA as it is an all-in-one package with distortion-free sound and easy operation", he continued. "It offers unbeatable sound and wide-ranging distribution thanks to the wave guide of the tweeters that has been developed using the Boundary Element Method. It reduces reflections from the floor and ceiling and prevents sidelobe levels, thus achieving an homogeneous dispersion. The church committee is delighted with the sound quality, and even the worshippers are in awe of how beautifully the pastor's words are translated through the system."

The MAUI 28 G2 is equipped with 2 x 8" woofers, 16 x 3" full-range speakers and 2 x 1" neodymium HF drivers. They are driven by a Class-D power amplifier with 2,000W peak power, producing a grunty bass, balanced mids with precise and silky highs.

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The P.A. People Enter Venue Engineering Space with TheatreQuip

AUSTRALIA: Over their 50-year existence, the Installed Systems team at The P.A. People have done their share of Venue Engineering, getting involved in the design and supply of staging and hoisting systems, custom making bracketry, fabrication, and more.

Recent changes in the Australian Venue Engineering market have spurred The P.A. People to substantially increase their capacity to serve customer's needs, and they've taken the leap by acquiring TheatreQuip, a well-respected name in the field for over 30 years, with its own IP and client base to match.

"We have been looking at expanding our capability to deliver staging solutions for quite some time," explained Chris Dodds, Managing Director of The P.A. People. "Over the past few months, we have received numerous enquiries from across the country looking for alternative providers of staging design and delivery. In order to service the market in a timely manner, we needed to acquire people, expertise, and business, rather than having the luxury of building the business from scratch."

TheatreQuip brings a wealth of theatrical experience and product to The P.A. People's Venue Engineering portfolio, including a comprehensive range of drapes, curtain tracks and accessories, counterweight fly systems, portable staging, and theatre machinery. The P.A. People will be adding to this range, flagging that there will be many upcoming announcements relating to lighting bars, drapes and fabrics and new products.

When asked what the first order of business was for the new arm of The P.A. People, Dodds enthused, "Everything! We need to make sure customers are being serviced, and that we have products in all relevant categories. We're updating designs, and the opportunities are here today. We're simultaneously extending our service, product development, design and engineering, and manufacturing capabilities."

Michael Rafferty, proprietor of TheatreQuip since 2001, said he was delighted that "TheatreQuip is now part of The P.A. People. I am looking forward to working together to deliver the very best staging solutions for venues. Chris has put together a very experienced team with a lot of familiar faces as well as some new ones and we have hit the ground running. We are looking forward to creating a new chapter for The P.A. People over the next fifty years by providing the best Venue Engineering solutions in Australia."

To complement its acquisition of TheatreQuip, The P.A. People have announced that industry stalwart Peter



Grisard is heading up the Venue Engineering group. The new team includes some of Australia’s best theatre practitioners including Andrew Mathieson in the role of Chief Engineer, Dallas Winspear, and Simon Steinfurth.

The new team has hit the ground running and are already actively engaged in the delivery of a number of significant Venue Engineering projects including a full counterweight system for Sutherland Entertainment Centre, drapes, tracks and lighting bars for the Bondi Pavilion, a full theatrical fit out for a new Performing Arts High School, and the supply of hoists and drapes for a number of other projects.

The P.A. People

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Hope Church Considers grandMA3 Perfect for Houses of Worship

INDIA: Three new grandMA3 lighting consoles – two grandMA3 compact XT, one grandMA3 onPC command wing XT and one grandMA3 onPC command wing – have been purchased by the Hope Unlimited Church. Campuses in 4 cities, with more coming soon across the country, have now all been upgraded to grandMA3.

Technical and Production Director Suresh Hickson, who heads up all the various Hope Unlimited technical teams around the country, stated: "grandMA3 is a perfect choice of console for all types of houses of worship, large and small, as it is so powerful and

flexible and can meet all of our needs!" Hickson has been working for Hope Unlimited since 2007 and the relationship with MA started back in 2009 when they purchased their first MA console, an MA Lightcommander.

This was followed by an MA onPC command wing, before upgrading to a grandMA2 light in Hyderabad's Hills Campus venue. Hickson and the team of lighting volunteers in Hyderabad also think it is important to keep abreast of the fast-paced world of production technology and lighting control. "MA Lighting products are extremely reliable, well designed and built," he said, which in turn enables their lighting designers, programmers, and operators to get the most out of the lighting rigs they are working with for the different services and other activities.

He was also impressed with the general level of training and support offered by MA, a big bonus to



© Hope Unlimited Church Media Team

working with the brand as he co-ordinates in total around 70 volunteers across all sites who are running productions for the Sunday services.

Most of the Hope Unlimited volunteers have been trained on the consoles in person, online and via MA Lighting's extensive and impressive raft of E-learning platforms and communities. "The software's one-application-all-platforms strategy makes it very straightforward for volunteers to learn and gain experience, whatever the size of the console they are using."

The Hyderabad campus hosts around 1,600 people for services each weekend, with events also streamed for a large online audience. The grandMA3 compact XT is running in full grandMA3 mode and currently controlling approximately 72 fixtures, a mix of moving lights, conventional fixtures, plus LED tubes and blinders all running across 8 universes using 1,100 parameters.

The lights are deployed in eight different locations – on the overstage bars, on side trusses, at FOH and on the deck. In addition to the regular services, there is a lively mix of other events including movie audio launches, quiz shows and conferences, so it's essential to be able to deliver a diverse range of lighting and technical solutions. For special events, more fixtures are frequently added, another advantage of the MA system where the available parameters can be distributed over multiple universes without needing extra hardware just to expand that functionality.

Their grandMA3 onPC command wing XT and grandMA3 onPC command wing were already running in full grandMA3 mode and the switch with the grandMA3 compact XT came at the start of 2022. Volunteer Harsha Davuluri, a regular programmer and operator in Hyderabad, commented that Phasers have been the most interesting feature so far, "opening up a whole new world of possibilities for creating truly dynamic effects."

For volunteers Santosh Samuel Meegada and Bunty Mallarapu, it is the Selection grid along with the MATricks options that are proving the best grandMA3 tools features so far, "especially in terms of new volunteers understanding the reasoning behind why things happen the way they do." "While we still have the same underlying workflow for creating Phasers as we did with grandMA2 Effects, the new Phaser Editor Window together with its one-dimensional steps view mode offers a far better understanding as to what is happening with the values," elucidated Harsha.

As Technical Director, one of the toughest questions Hickson asks himself when upgrading a system is the duration of the transition from old to new – and it's a question he applies rigorously to any system. He confirmed that in the case of grandMA3, the duration of transition has been "virtually none!"

"The knowledge our volunteers had about creating presets, building sequences, running song-transition macros, etc., is exactly the same if not easier than before," he said. And while it will take time for them to develop their own flavour of grandMA3 programming "the most important things like the underlying command syntax have been pretty much the same, so we don't have to put our services at stake!" Hickson further emphasised the importance of their volunteers and the vital contribution made by regular lighting team members including Paul Abhishek, Benny Gundupalli, Rahul Thipparapu, Seshi Govatati, Vinitha Chitram, Peter Prudhiviraj (Pulli) and Kranthi Lingampally.

Working at a House of Worship institution like Hope Unlimited Church means being prepared for some spontaneous and often unrehearsed worship moments, and now that the presets allow for timing information to be stored inside them, "it is very easy for us to use individually timed presets while busking!"

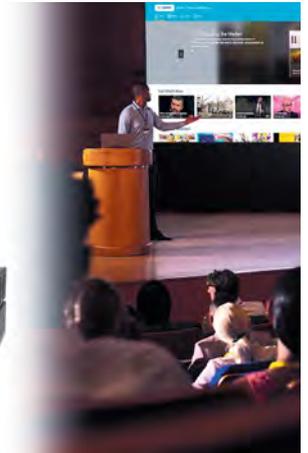
Hickson and the team consider grandMA "a solid investment" because the equipment will not become obsolete; it always maintains a good market price with low depreciation and the software upgrades are free for the lifetime of the console.

Additionally, learning the grandMA3 platform opens a raft of other job opportunities for those volunteers who might even be interested in pursuing an industry career as well as boosting their confidence and experience as lighting designers and programmers.

Hi Tech Audio Systems Pvt Ltd. is the exclusive distributor of MA Lighting in India.

MA Lighting

Extron
and
YuJa



Extron LinkLicense Upgrade Leverages SMP Series with the YuJa Platform

GLOBAL: The latest Extron LinkLicense upgrade, which seamlessly integrates SMP 300 Series products with the YuJa video platform, is now available. This integration facilitates streaming and publishing of live and on-demand video content by seamlessly enabling SMP 300 Series devices to ingest recording and live streaming schedules for publishing to the YuJa video management platform.

"We recognize the increasing need to harness the power of live and on-demand video in educational institutions and corporations," said Casey Hall, Vice President of Worldwide Sales and Marketing at Extron. "Deploying the right solution to address your video needs is paramount. With our new LinkLicense upgrade, customers using the YuJa video platform will have a truly seamless capture and streaming experience."

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L-R: Mr Nakao from MSI Japan Osaka, Mr Marui from HEP HALL (D-JAM create), and Mr Adachi from MSI Japan Osaka.

Martin Audio Allows for Greater Flexibility Within Iconic HEP HALL

JAPAN: Hankyu Entertainment Park or, as it is commonly known, HEP is a major shopping mall and entertainment centre within the Umeda commercial district of Kita-ku, Osaka.

Up on the 8th floor of the building, one can find HEP HALL, a theatre space which recently upgraded its technical infrastructure to Martin Audio's CDD-LIVE PA system. Mr. Marui, HEP HALL manager, explained the reason for the upgrade: "HEP HALL has been a popular theatre venue for a long time. However, since

the previous permanently installed loudspeakers were a fixed L/R proscenium system, a separate PA often had to be brought in by touring productions. As we have now added a portable CDD-LIVE solution to the original PA, it has given us more flexibility. This means production teams no longer need to carry their PA, and we can handle various events in different parts of the building—not only plays but also live music."

One set of CDD-LIVE 12 and SXP118 subs has been installed at both sides of the stage, where a wide and even coverage is maintained, without the need for infills. In addition, 4 x CDD-LIVE 12 are available for use as stage monitors. The main power distribution rack, installed at stage left, is equipped with a power supply panel with circuit breakers, enabling a flexible layout. In addition, Dante network audio is adopted for sending

and receiving signals, and simple plug and play is facilitated by connecting just the power supply and LAN cables.

Noting the requirements for a fully portable system, Mr Marui continued, "We needed this degree of flexibility, as the layout changes according to the event. For example, we can bring the speakers to the ground floor lobby and hold a PA event there. With that in mind, it makes sense to have a self-powered system."

The system is configured with full Dante networks on which are a Yamaha QL console and Shure wireless systems, as well as CDD-LIVE. However, even when

combined with a simple analogue mixer for a lobby event, CDD-LIVE can be used with an analogue connection without any setting change. This is an advantage of the automatic input signal detection function. Since CDD-LIVE is self-powered, it does not require any amp racks, and can easily be transported.

Mr. Marui concluded, "I really like the fact that this system is more powerful than it looks. I hope Covid19 settles down quickly so that this system can be used at many events in the future."

Martin Audio

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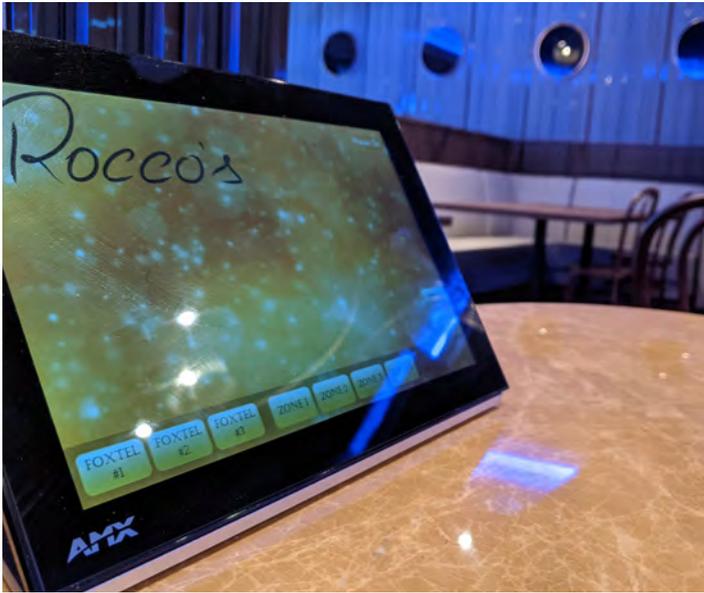
HARMAN Professional Transforms NSW Restaurant into Versatile Event Space

AUSTRALIA: Rocco's Bar & Gusto is a restaurant and venue located in New South Wales that hosts parties, private business meetings, sporting and fine dining events. As the venue space can be divided into multiple separate areas to accommodate a variety of events and meetings, the restaurant required an audio-visual solution with the flexibility to route and matrix signals to their respective zones. To meet this request, Rocco's acquired a fully networked audio-visual system featuring solutions by AMX, BSS, JBL Professional, Crown and AKG.

To achieve high-quality sound throughout the space, the installation team equipped the restaurant with JBL Control 47LP low-profile ceiling speakers and

Control 40CS/T in-ceiling subwoofers for wide and consistent coverage throughout the venue while using minimal space. Additionally, an AKG WMS470 wireless microphone system ensures clear vocals and speech intelligibility for performers and speakers. Crown DCi 8|300N amplifiers with DriveCore technology power the loudspeakers while BSS EC-8BV Ethernet wall controllers offer speaker load flexibility and volume control across different zones. Finally, the BSS BLU-BIB input expander offers an additional 8 x analog channels, and the BSS BLU-100 ensures latency-free signal processing for high-bandwidth events.

The central control system for the venue, featuring exclusively AMX solutions, provides flexible zone configuration and extensive network security features. The AMX MT-1002 tabletop touch panel and NX-2200 NetLinx NX integrated controller provide fast responsiveness throughout the venue. Lastly, the AMX SVSI N2300 4K Series encoders and decoders distribute 4K video with low latency, low bandwidth and low power consumption, while the NMX-ATC-N4321 audio transceiver efficiently sends and receives two-channel balanced or unbalanced audio over IP throughout the venue.



processors for their proven reputations of high-level integration with various technologies, making them a natural fit for Rocco's event space.

"Rocco's Bar & Gusto was a bespoke installation in every sense," said Amar Subash, Director, Channel Management and Audio Solutions, HARMAN Professional Solutions, APAC. "Leveraging the latest in control technology offered by HARMAN's systems, they were able to create an engaging environment. "We would like to thank Rocco's Bar & Gusto for letting us help them provide a premium audio experience to their audience."

HARMAN

A spokesperson for the installation team added that they specifically selected AMX and BSS controllers and



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From Solution Design and Sharing to Management and Monitoring, Datapath's Aetria Helps You Take Full Control of Video Data



Aetria Connectivity.

The best decisions are based on the best data - with the challenges of the past two years demonstrating how vital it is to collate and share accurate information. Critical decisions are based on information available, so it makes absolute sense to make these decisions with as much relevant information as possible, whether that's from camera feeds, news sources or other dedicated information sources.

This applies as much to companies and organizations as it does to emergency services and governments. The control rooms of today are far more advanced and

intricate than ten years ago, when the traditional large video wall looked out across individual workstations, with information collated to view on the large, single canvas.

Today, the number of sources and feeds coming into a control room is likely to be dozens, if not hundreds. Add the need to manage and share this content to the right people, across numerous displays and workstations (or even locations) and the challenges become very real.

Being able to transform any video wall display, instantly, for different emergency situations is now



Control Room.

standard practice in many mission-critical and emergency control rooms. Having a rigid display on a video wall is underutilizing what is possible for maximum efficiency. Anything is now possible for today's displays, from carousel windows showing security feeds, to auto-source switching when emergencies happen.

It's an area where UK-based video processing specialists Datapath have excelled. Their hardware and software is used in Presidential palaces and defense hubs across the world and in businesses both large and small, in every continent.

The company's Chief Technology Officer, John Storey, has been developing video processing technology for over 30 years. With a wealth of patents to his name and unparalleled experience in transferring video data, he explains where he thinks Control Room operation is heading, and what we can expect technology to deliver in the near future and beyond.

"The one thing that we can say is that what hasn't changed is the fundamental role of a control room, that its purpose is still, after all this time, to bring lots of visual information together, to present that to operators so they can make informed decisions," he says.

"That part of it is a constant. What has changed is the way that information is brought in and how it's disseminated and shared. So, if you go right back, originally sharing was all about putting everything on one large canvas - the control wall. And sharing meant being in the same room as that wall. So that was as far as it went."

Today's technology means that system integrators and operators are no longer limited to the constraints of matrix switches, with networked systems bringing a level of flexibility not previously seen.

“As media has become more routable - and that's very much thanks to AV over IP - you can bring that information together in front of those operators in many different ways,” adds Storey. “And with those advances in display technology, a lot of that can now be shared at operator workstations, and beyond if necessary.”

To meet the needs for the growing complexity in Control Room environments, Datapath has brought to market a platform that is as suitable for modest control rooms as it is to large, multi-source and multi-site organizations – able to design, manage and monitor entire systems from a single interface.

Named Aetria, this platform provides a central interface for all configuration and control, bringing numerous benefits to efficiency, reliability, and the ability for full and fluid collaboration.

Storey explains: “We have developed a solution that allows these workstations to operate as their own ‘personal video wall’ – displaying any content as they see fit - as well as being able to share anything to any display in the Control Room environment, or even externally.”

Quite clearly, the need for pristine quality video is paramount on all displays – as mentioned earlier, it's the detail that can sometimes be the difference in vital decision making.

Storey and his team have developed a world-first technology that allows optimum quality video to be shared over 1Gb and 10Gb networks simultaneously, with no visual impact on latency and image quality. A 4K video source can be viewed and shared in full quality 4K, while also being transferred in HD more widely across a low-bandwidth network, for example.

Whilst moving data over IP networks promises new levels of flexibility, it also brings significant security and deployment considerations. Squeezing content over an IP network brings visual quality considerations, and perhaps most importantly for Command and Control, latency issues. Unless the use of encoded video streams (typically H.264/5) for the primary control aspect is immediately written out, the high encoding latency makes real-time ‘control’ clunky and difficult to use in practice. The commoditisation of 10Gb networking components now allows uncompressed or ‘visually lossless’ compression techniques to be employed that don't incur the same latency penalty. “The ability to securely share anything, anywhere is the objective here,” adds Storey. “To different workstations, offices, or even buildings. We have managed that with imperceptible impact on latency, and zero impact on video quality.”

Clearly, data security in the control room is vital, and end-users need to know that their systems are as safe as possible. With Datapath's Aetria solution, security is built-in. All connections are secured with Enterprise-grade AES encryption, and user sessions and APIs are secured with TLS encryption. Finally, the role-based User Rights Management functionality can be used standalone or integrated with an existing enterprise identity and access management platform.

For more on Datapath and their Aetria platform for Command and Control rooms, visit [Datapath/aetria](https://datapath.com/aetria)

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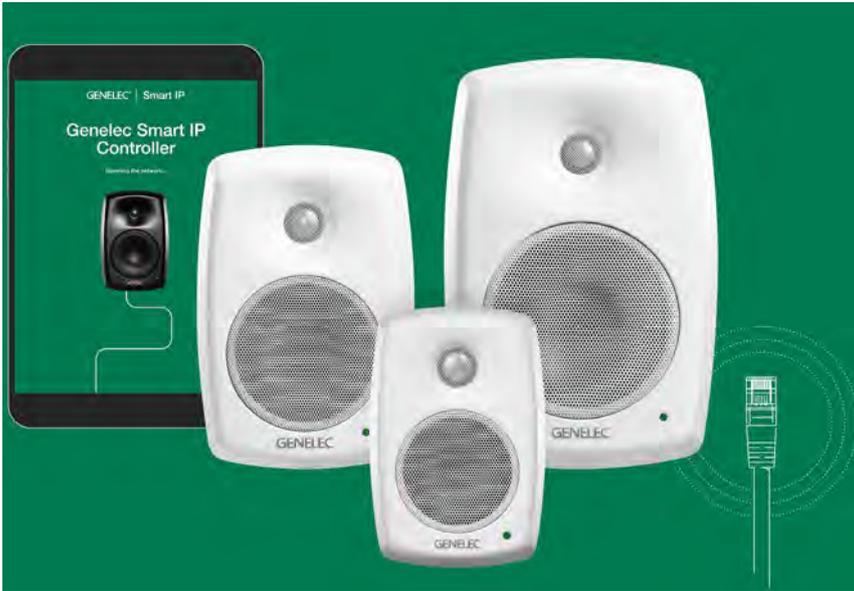
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Genelec Grows Smart IP Family with New Loudspeaker and Controller App



Genelec has expanded its Smart IP family of installation loudspeaker systems with the introduction of the super compact 4410 loudspeaker model and a new Smart IP Controller app. The 4410 joins the existing 4420 and 4430 Smart IP models to cater for an even wider range of applications and room sizes, while the free Controller app provides the end user with instant and intuitive control of key loudspeaker system functions including mute, volume control and power on/off, plus overall zone control.

“The compact 4410 is a natural and welcome extension to our Smart IP loudspeaker family, while the Smart IP Controller app is the perfect tool for less complex installations where comprehensive touchscreen control of the system isn’t always required,” commented Genelec AV Business Manager, Sami Mäkinen.

4410A Smart IP Loudspeaker

Originally launched in 2019, the Smart IP loudspeaker range combines exceptional sound quality with single

cable convenience, providing scalable power, audio and management features via a standard CAT cable. Offering extraordinary coverage, clarity and intelligibility, all models are compatible with both Dante and AES67, and derive power via PoE and PoE+ Power-over-Ethernet formats.

Measuring 181 mm in height, the active two-way 4410 is perfectly suited to smaller spaces, yet its proprietary internal power supply helps to produce 100 dB of short term SPL. The 4410 supports up to 8

x audio channels in a stream with sample rates of 32 - 96 kHz and 16 - 24 bit resolution and delivers a frequency response of 67 Hz - 40 kHz, via internal Class D amplification stages driving a 3 inch woofer and 3/4 inch metal dome tweeter.

Created in conjunction with leading industrial designer Harri Koskinen, the 4410’s Minimum Diffraction Enclosure is fashioned from recycled aluminium and utilises Genelec’s trademark Directivity Control Waveguide, to ensure precision and clarity both on and off axis. The 4410 is available in black or white finishes, with a wide range of accessories ensuring that it can be mounted quickly and conveniently in almost any location.

As well as receiving both power and audio-over-IP, the 4410’s single rear panel RJ45 connector also allows access to Genelec’s Smart IP Manager - a downloadable software tool running on Windows 10. The software allows installers to configure number of rooms, zones, loudspeakers and audio channels,



and includes device discovery, a versatile room equalisation tool set, system organisation and status monitoring.

Smart IP Controller App

Once the installer has used Smart IP Manager to configure and optimise the system, the end user can then download the free Smart IP Controller app onto their smartphone or tablet (iOS or Android) for instant fingertip control of mute, volume control and power on/off. The Controller app will automatically discover the loudspeakers on the network, and offers a clean and intuitive user interface. Access to some or all of the zones created during configuration can then be assigned to the app, thus ensuring that the appropriate levels of access are granted to each end user. Mäkinen noted, "The 4410 is perfect for those installers looking for big loudspeaker performance from a small footprint, while the Controller app provides a simple, low cost alternative to third party house automation systems. We're sure that installers and end users alike will warmly embrace these new additions to the growing Smart IP family."

Genelec/Smart IP

Aurora RXT Desktop Panels Solve Presentation Needs



The RXT-8D (8") & RXT-10D (10") are an all-in-one IP touch/control solution powered with ReAX (JavaScript based control engine).

Designed to sit on any flat surface, the RXT desktop panels have a touch screen with 170-degree viewing. Since the panels are a web-based control server, the interface can be remotely served up as well. Cell phones, tablets, and laptops can all have a remote interface with the system for bring-your-own-device control.

The multi-core processor with a 3D graphics engine and H.264 streaming decoder provides a powerful solution for complex graphics and video. A built-in speaker and digital microphone further compliment the video capabilities. The Core Studio tool is available free of charge for drag & drop code and interface creation.

Available in black or white and ideal for a variety of installations, including digital signage, the panels are currently in stock.

Aurora/ RXT-8D

Key Digital Collaboration with TOA Yields LeCAMbio Conferencing Systems



In partnership with TOA Electronics, Key Digital has developed a line of integrated corporate conferencing solutions for small- to medium-sized rooms. The unified solution integrates TOA Electronics' LENUMIO audio collaboration system with Key Digital's KD-CAMUSB PTZ camera for automated voice-tracking of conference A/V.

LeCAMbio systems link microphone beam-steering technology in a separately purchased TOA LENUMIO soundbar with Key Digital's PTZ camera automatically delivering simultaneous voice and camera tracking of active users, improving conference focus while eliminating operational distractions for the host. 4 different LeCAMbio systems are available, offering a range of solutions to meet the needs of a variety of conference room sizes.

Each system includes the Key Digital KD-CAMUSB PTZ camera with automation based on voice-tracking capabilities of TOA Electronics' proprietary LENUMIO AM-CF1. LENUMIO AM-CF1 houses a

seven-microphone array with active stereo speakers (available in white or black). Key Digital's KD-CX800 Control Interface is the final core hardware component, allowing IR and RS-232 system control via IP Routing. Connectivity to a host computer is handled with a single USB connection. The systems generate 1080p full HD video with up to 10X optical zoom via the KD-CAMUSB with automatic beam-steering audio capture per the AM-CF-1's microphone array.

The AM-CF1's automatic echo cancellation, noise reduction and other built-in DSP functions optimize audio fidelity ensuring consistent high-quality transmission in both directions. Front mounted LEDs on the soundbar indicate the detected voice direction and distance. Touch-screen system control is handled via iOS (Compass Control Pro on iPad), and manual camera control is also available via the free KDCam Software for Windows computers. Additionally, further A/V and room devices can be easily integrated into the system's signal flow.

In the LeCAMbio system, LENUMBIO's voice-tracking data is converted to the camera's PTZ information, thus providing both voice and camera steering to an active participant via Key Digital's Compass Control Pro control software for iOS. Compass Control Pro is a programming-free, plug-and-play solution for complete control and signal management under one platform.

LeCAMbio System 1 - Supports up to 5m/16ft of USB/HDMI cable length from the display.

LeCAMbio System 2 - Scales up to 50m/164ft via the use of the KD-XUSB2 USB 2.0 Extender Kit.

LeCAMbio System 3 - Incorporates the KD-X100MRX HDBaseT Receiver and KD-X4x1WUTx or KD-X3x1WUTx HDBaseT Transmitter to scale up to 100 meters of cabling extension.

LeCAMbio System 4 - Also offers 100 meters with HDBaseT consolidation and in-rack connectivity for additional sources and other system components with the addition of the KD-UPS52U Presentation Switch.

LeCAMbio systems are now shipping from stock.

**Key Digital/LeCAMbio
TOA Electronics/LENUMBIO**

Ashly Audio Rounds Out Dynamic Passive Subwoofer Line



By extending their line of dynamic subwoofers, Ashly Audio is enabling integrators to provide powerful sound for installations with limited space. In an 8-inch package, Ashly Audio's new SP-8.1P Passive Subwoofer possesses 150w handling power to provide sound systems with extra power in a variety of environments. The compact nature of the subwoofer allows integrators to tailor the audio to the audience.

The new SP-8.1P handles up to 150W at 8 Ohms, with a sensitivity of 95dB (1W@1m) and a frequency response of 43Hz-180Hz (-10dB) to provide audiences with powerful audio experiences. The subwoofers

DSP voice presets provide frequency response tailoring, delay and crossover settings with Ashly's IS & AW speakers with AquaControl and Protea-equipped processors. For maximum effect, pair the subwoofer with Ashly's nXp 400 or higher or Pêma 4125, 4250, 8125, 8250 amplifiers.

With two recessed handles—one on either side— and rubber feet on the bottom and side, transporting and stacking the sound system will be fast and easy. For more flexibility, the system can be hung with the SP-8.1P's 10mm threaded bolt holes along the top, sides and rear to accommodate optional hanging eye-bolts.

The new SP-8.1P subwoofers are designed with a dynamic 8-inch woofer with ferrite magnet, front loaded into a bass-reflex and a 0.6" reinforced plywood enclosure. The subwoofer line is available with a textured paint finish in black or white.

Ashly Audio/ SP-8.1P

New GS Series Models Join Christie 1DLP Projector Line



Christie GS Series DWU880-GS in white

Designed and built for high-use environments, the new Christie GS Series models are available in two brightness options: 9,000 ISO lumens and 10,600 ISO lumens. They feature laser illumination, which offers 20,000 hours of consistent illumination to 50% brightness and a low total cost of operation – there is no need for lamp or filter replacements.

Christie Twist warping and blending tools are built into the new GS models, allowing for quick and easy alignment onto irregular screens for multi-projector blending. With Christie Mystique Lite, an optional camera-based alignment software that works with an inexpensive webcam, up to three horizontal projectors can be automatically stacked and aligned on a flat screen or surface in minutes.

Mystique Lite is available for download at no additional cost and can be easily upgraded to other tiers of Mystique software, to warp, stack and blend larger projection arrays on a more complex screen or surface.

The new models deliver content to suit the application, including support of HD 3D content via sync in/out, picture-in-picture or picture-by-picture for video conferencing, and DICOM mode for medical imagery. For installation flexibility, GS Series includes DVI, HDMI, HDBaseT and 3GSDI inputs.

The new GS Series projectors are available with a full suite of motorized interchangeable lenses. The Christie DWU880-GS is available in black or white, including TAA-compliant models. The DWU1100-GS is available in black, and in a TAA-compliant model.

The new models are ideal for installations including meeting rooms, education spaces, museums, houses of worship and more. Both are currently available for order.

Christie/GS Series

Kramer Expands Benefits of AVoIP with KDS-7 Product Line



Kramer Electronics has released KDS-7, a full AVoIP streaming solution for anywhere that low-latency, high-quality 4K60 content distribution and switching is required. Delivering a superb user experience, enterprise IT-grade security and advanced, yet intuitive management, the KDS-7 line is a perfect fit for enterprise, education, homeland security, military or government sites of any size.

Built as a complete solution, the KDS-7 product line comprises a full range of networked end points, including encoders, decoders and auto-switch encoders, as well as a dedicated manager device. It supports 1K video sources and easily scales to suit the AV needs of numerous rooms and locations, for any size business or campus. Enterprise-grade IT security, built-in to all KDS-7 devices, protects the IT network.

The KDS-7 product line improves the benefits of AVoIP by leveraging the switching power of the IP network to

eliminate the limits on AV deployments, which would otherwise be constrained by the number of physical AV ports on hardware. This simple and reliable approach enables huge numbers of devices in a single network and makes expanding into new spaces easier and less costly.

With the KDS-7 line, integrators can expect greater scalability and flexibility. Plug-and-play integration into any IP network speeds up deployment and significantly reduces costs. High-resolution video, support for large-scale video wall installations, and full compatibility with end-user devices, including USB-C connection for simple collaboration and simultaneous charge, ensure an outstanding experience for users.

Kramer/KDS-7

ROE Visual Launches the Opal Led Platform



ROE Visual is proud to launch the Opal LED platform. Opal is a new product series for AV Integration, aiming to provide designers and clients with a creative and versatile LED platform that accommodates indoor and outdoor applications. This spring, the Opal platform will be showcased at several tradeshows globally, such as the NAB and ISE.

The Freedom to Create: The design of the Opal series initially started with the concept of building blocks and the construction of new display configurations. The Opal panels allow for more creative installation possibilities sporting panel dimensions of 300x300mm and 300x600mm. Based on different modules, Opal allows flexible designs and building screens in almost any shape and size desired, reducing customization costs and time spent.

Furthermore, placing the Opal LED modules in any environment is possible using the Opal Frames for wall mounting or the additional hanging and stacking options. In this way, creativity and imagination can run free, resulting in a more immersive final product.

Intuitive Installation: The installation process of the Opal series is as thoughtfully designed as the display itself; easy handling, efficient installing, and display stability were key attention points in the development process of the series. Opal is a versatile LED platform conceptualized to facilitate out-of-the-box designs. The universal Opal frames, suited for in-as well as outdoor applications, are deliverable in various dimensions, perfect for installation in horizontal and vertical planes. Due to high-precision engineering and manufacturing, the resulting canvas is always perfectly aligned, seamless and meticulously flat.

Unparalleled Visual Effects: ROE Visual developed the Opal LED platform to create an impressive visual performance. Opal's high contrast ratio and wide color gamut deliver an unmatched color accuracy, while common cathode technology guarantees 25% energy reduction and a stable, color-consistent LED performance. EMC Class-B certified, Opal offers the certainty of a reliable and first-in-class product, even under demanding circumstances.

With consideration to all the features above, the Opal series is a power player in the AV space. The innovative, fine pixel pitch LED display offers the optimal LED solution with maximum flexibility in various applications for designers and users alike.

"Opal is a versatile LED platform based on universal modules and frames. Therefore the platform provides a creative LED canvas offering more flexibility for our customers. For its outstanding qualities, we believe the Opal Platform will soon find its place in the exacting AV market," states Glory Gao, Deputy Sales Director at ROE Visual.

ROE Visual/Opal LED Platform

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Equipson Unveils Acoustic Simulator for PA Products

The screenshot displays the Equipson Acoustic Simulator interface. On the left, there are input fields for 'SPACE' (Length: 15m, Width: 25m, Height: 3.5m), 'CEILING SPEAKER SELECTION' (Amplification mode: 100V, 70V, Low Impedance; Ceiling speaker model: C PRO 4; Available powers: 5W), and 'SIMULATION PARAMETERS' (Simulation type: Edge to edge, Minimum overlap, Center to center; Frequency range: Public Address (2500Hz), Voice (5000Hz), Music (10000Hz); Background noise: 50 dB; Ear height: 1.7m). A 'SIMULATE' button is located at the bottom of the input section. On the right, the 'Speakers' section shows the 'C PRO 4 Ceiling speaker' with a product image and characteristics. Below this is an 'SPL output (dB)' heatmap showing a grid of speaker positions and a color scale from 60 dB to 120 dB.

Calculating the correct number of PA loudspeakers needed to provide the best audio coverage in a given space can be very time-consuming - especially if the space in question is not uniform.

To address this issue, Equipson has created an Acoustic Simulator for its own product range that is designed to help AV installers accurately calculate the number of loudspeakers and amplifiers they need to achieve the best results.

The web-based tool makes its calculations by referencing a comprehensive database of Equipson loudspeakers and amplifiers. Filters are provided so that installers can choose the product with the right characteristics for their project. Once a choice has been made, all the installer needs to do is enter the dimensions of the space and let the software work

out how many loudspeakers are needed. It will also identify which amplifiers should be chosen to meet the project's power requirements and it will tell the installer where best to position the loudspeakers within the space to achieve the best acoustic results.

The software can be tailored to suit highly specific requirements – for example an installer can state whether a PA system will be used for speech, music or both, the type of sound dispersion required and the tolerance level for background noise.

Once the correct number and type of products have been identified, installers can also link the Acoustic Simulator results to their account to create a shopping list. There is also an option to download the simulator's results as a pdf file.

[Equipson/ Acoustic Simulator](#)

Crestron Adds Wireless Conferencing to AirMedia Technology



Wireless conferencing empowers employees to join any online meeting from their personal device and leverage the existing peripherals available in that space, fostering more intuitive and efficient meetings in the modern office, wherever that may be. With the addition of wireless conferencing features to the Crestron AirMedia solution, enterprise teams can connect and collaborate with significantly scaled speed, ease, and flexibility.

BYOM

Crestron AirMedia technology boasts enhanced bring-your-own-meeting (BYOM) capabilities to support advanced wireless presentation and wireless conferencing from a single solution. For organizations that are using multiple video conferencing platforms, wireless conferencing allows employees to take advantage of the enterprise-grade cameras and microphones in the room from any personal device on any platform. Furthermore, for organizations

standardized on Microsoft Teams or Zoom Rooms platforms, wireless conferencing also brings interoperability for joining external calls or equipping guest users to join calls hosted through another provider.

Wireless conferencing enables organizations to integrate video conferencing into any space, independent of room constraints or the need to run wires. The Crestron AirMedia solution bundles content distribution, presentation, and wireless conferencing together with the added benefit of being quickly deployed, scaled, and upgraded through the Crestron XiO Cloud platform.

Seamless Collaboration for Every Space

As companies evaluate changes to the physical workplace to better support hybrid work, ensuring that teams can optimize time together is crucial. Technology that can support more intuitive, collaborative, and efficient meetings between disparate teams, especially on an ad hoc basis, will be key to minimizing time lost and maximizing productivity.

This type of collaboration will need to transcend traditional meeting rooms to provide a consistent collaboration experience in informal spaces such as lounges, cafeterias, huddle areas, and more. With wireless conferencing and a local display, the next meeting can start anywhere, allowing employees to continue conversations where they begin and bring in remote participants with ease.

[Crestron/ AirMedia](#)

New Beginnings

Evolve, Grow, Develop!



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BOMBAY EXHIBITION CENTRE,
GOREGAON (E), MUMBAI, INDIA



PALM AV-ICN expo is India's foremost tradeshow for Professional Sound, Audiovisual and Lighting Industry. For 20 years PALM expo has been the principal catalyst fuelling the industry, by connecting global manufacturers and solution providers with dealers and vertical market buyers.

In its previous editions, PALM's Pro Sound & Light + Pro AV Exhibitors, have grown Indian markets and delivered the best to Indian trade and community professionals. The show has rich heritage of providing limitless opportunities to pro sound, audio-visual and lighting industry, and this year PALM AV-ICN expo 2022's importance is especially incontestable as it points to new beginnings!

PALM expo 2022 in conjunction with AV-ICN expo will be a major game changer as it will revive the entire demand and supply chain, reactivating trade, providing physical platform for buying and selling. The expo will reinitialize business connections, networking and interaction between exhibitors and their prospect partners, dealers and end-users by fulfilling its responsibility in once again organizing an uncompromising expo. PALM AV-ICN expo 2022 will overcome challenges to bring to exhibitors a world-class expo.

Besides connecting exhibitors to valuable buyer community, the expo will be host to a vibrant exchange of information through immensely successful PALM highlight features, which provide opportunities for collaboration and networking with leading industry

professionals and thought leaders. Highlight features include:

AV-ICN Summit: The three-day AV-ICN Summit will host informative, technical Conference & Seminar sessions by thought leaders and experts of AV industry, discussing topics of interest and relevance to AV industry. The Summit aims to be a window to the future of AV in India providing equal opportunities to all to participate.

Certified AV Specialist Education Course (CAVS):

This three-day course is aimed at providing knowledge manpower. It is designed to provide audio, video fundamentals' knowledge and enhanced troubleshooting skills, while promoting best practices and expertise of systems technologies. This year the course will focus on **Designing Workspaces in Changing Times**.

Demo Qube: Demo Qubes at PALM, provide ample opportunities to exhibitors wanting to demo high-end speakers and sound systems. With restrictions on sound in exhibit hall, Demo Qube is an ideal concept for pro audio companies to demonstrate their products with ease in a private cube structure.

IRAA Awards Winners Felicitations: IRAA Awards are the first ever music awards in India that recognize recording & engineering talent. Since 2006, IRAA has honoured exceptional talent in music, soundtrack recording and mixing in Indian music of albums and movies. At PALM expo 2022, the 2021 IRAA awards winners will be felicitated with mementos.

Lighting Design Showcase: This first of its kind lighting showcase in India, provides platform for creative excellence in the field of live events and entertainment lighting design. The showcase puts spotlight on emerging talent and provides an opportunity to lighting designers from across India to showcase their skill. This lighting-choreography showcasing displays programming skills, innovative original visual imagery and stage lighting design creativity by exploiting latest lighting fixtures and console technology.

Live Rigging Workshop: This feature presents live demos on truss and rigging-based safety protocols, best-practices and, workshops on topics ranging from truss roofing structures, need for ballasts, guywire based cross-bracing to safe truss climbing, fall & rescue techniques and more.

PALM AV-ICN Intelligent Lighting Projection Demo:

This demo highlights new technology that converts any digital projector into beam machine.

PALM Live Arena: One of the most attractive features at PALM expo will be back after a two-year gap with a line-up of some of the best artists, bands and musicians performing live at the arena.

PALM Sound and Light Awards: These awards honour excellence in the stage sound and professional lighting industry. Spread over several technical and creative categories, the awards recognize individuals and organizations for their unparalleled contribution to live event entertainment industry by rendering outstanding products and services in staging, lighting & live sound field.

PALM Sound and Light Summit – Conference & Seminar Programme: This feature encompasses highly informative and educational lectures, panel discussions, seminar sessions, company sponsored product presentations and workshops on relevant subjects to stage, entertainment, events, AV integrations & install and music production industry.

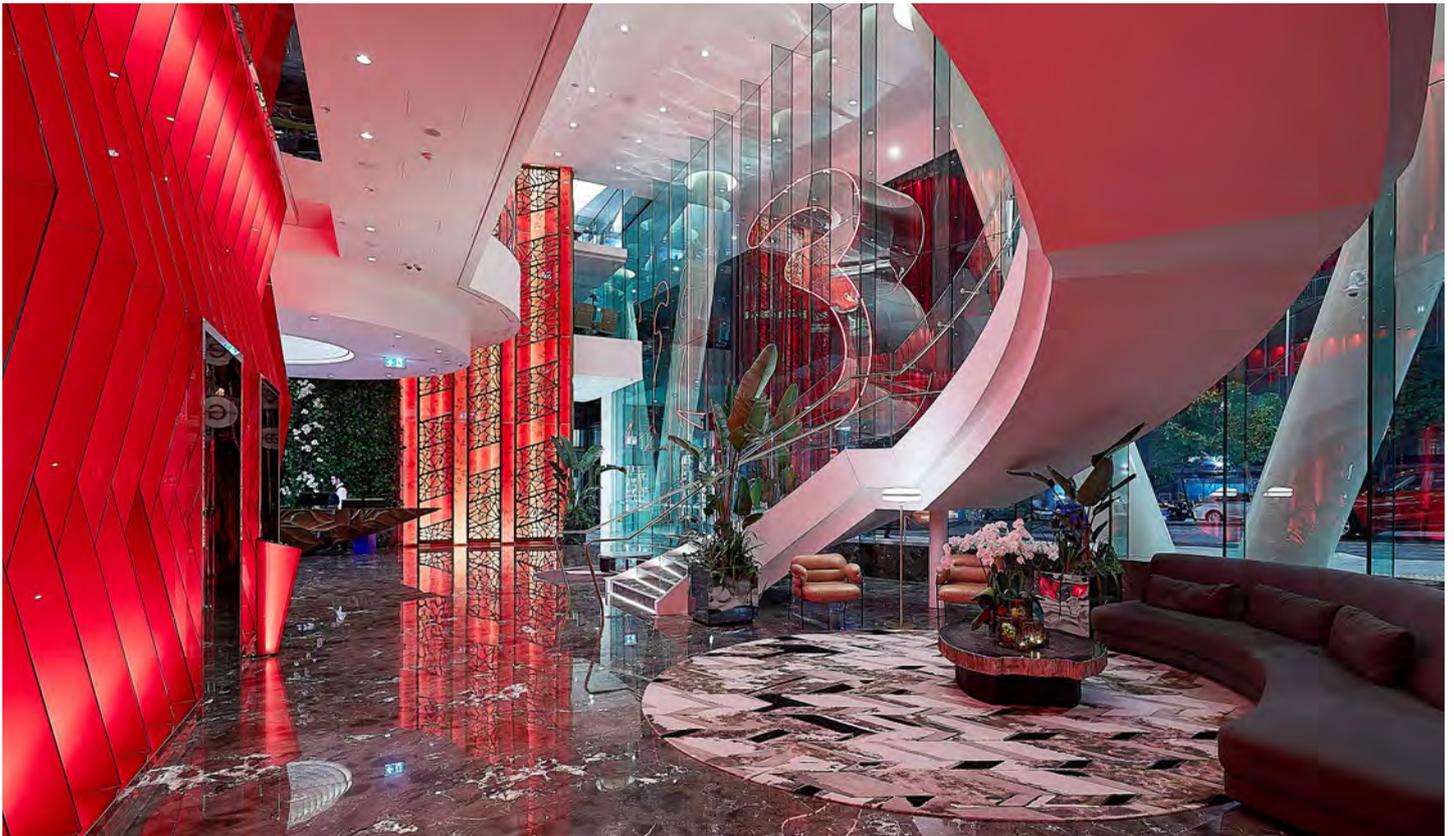
The last two years have been a great disappointment with 25,000+ trade attendees missing out on opportunity to source equipment and network on the show floor and its extensive highlight features. Planning new product launch and developing user community at PALM is what grew business in this region – PALM EXPO DELIVERED BUSINESS. The expo's purpose this year is to provide stimulus, growth and investment opportunities to exhibitors. PALM expo calls upon the industry to be inspired and make new business contacts only at **PALM AV-ICN expo 2022!**

PALM AV-ICN Expo

Luxuriating with Cutting-edge AV

Exploring the fascinating world of luxury hotels and the increased involvement of cutting-edge AV technologies to offer exceptional guest experiences

by Elton Noronha



Emporium Southbank Lift lobby in Australia feature recessed FreeSpace 3 Series II Acoustimass ceiling subwoofers that are complemented with Bose FreeSpace 3 Surface-Mount Satellite loudspeakers and driven by PowerMatch PM8500 amplifiers. Photo courtesy of Bose.

An unspoken symbol of grandeur and extravagance; luxury hotels embody distinctive connotations to different people; dependent on personal perspective, of course. For example: For the rich and the affluent – luxury hotels represent a ‘home away from home’ where they can enjoy all the conveniences and niceties that they do in their own homes. For the common man – luxury hotels usually serve as a symbol

of indulgence and lavishness that they may treat themselves to on special occasions, but actually wish they could do more of, and probably on a daily basis.

Whether routine and commonplace for the rich or aspirational and desirous for the common-man; the one fact that cannot be denied is that agglomerating the vision of a luxury hotel and giving it true shape and form take an immense amount of planning, creativity,

diligence, and of course, resources. And over the past few decades, the sheer proliferation of luxury hotels has aggregated it's importance as a key revenue segment within the hospitality industry globally.

The past few years, however, has pressed several dramatic changes within the business landscape for luxury hotels across the globe. New policies, inflation of operating costs, an ever-evolving palate of the target market, and of course, an unforeseen global health crisis – all of these factors have fostered a rather cut-throat competitive business ecosystem between hotels in popular locations, each of whom enjoy a particular set of dedicated patronage no doubt, but also constantly vie with each other for new clientele.

Before the outbreak, hospitality was among the fastest growing industries in the world – fuelled mainly by the exponential growth of the travel and leisure sector, and surprisingly enough, the events and entertainment sector as well. Following the pandemic cascading into several restrictions, the fallout did turn out to be quite prominent on the hospitality industry and luxury hotels in particular, mainly because of its heavy reliance on 'public gatherings' and 'travelling visitor' patronage. Also thrown into the mix of reasons is the fact that unlike certain other sectors – these businesses were unable to fully transfer their core services online. That being said, there was a certain amount of discussion of hotels using down-time to upgrade their premises with amenities and service offerings in general, in the hopes of gaining more "local" demand outside of accommodation. This however, did not turn out to be universal for all hotel establishments, as many of them were found to be severely crunched for funds and barely hanging on to threads, in an attempt to simply keep operations afloat.

When the markets opened up a bit – competition between luxury hotels peaked to new extremes – and

in such an atmosphere, it was found that the luxury hotels who picked up on business traction quicker were the ones that utilized the downtime to 'think out of the box' and overhaul their premises to offer greater diversity and uniqueness not just in terms of rooms and services, but also in terms of the in-house amenities available within the premise.

Having multiple amenities in-house dining venues, health and fitness centres, spa, pool areas, lawns / courtyards / open areas, meeting rooms, conference rooms, ballrooms, banquets and other common areas can no longer be viewed as premium perks to a luxury hotel experience. Rather, in the current scenario, these have invariably become an unsaid mandated necessity of the guest experience. The kind of experience a guest enjoys while at any of the aforementioned spaces is now found to have a greater impact on their decision to visit the establishment in the future. And coincidentally, the kind of experience that a guest would have at these spaces is found to be greatly influenced by the overall ambience there i.e. its visual appeal, the quality of the sound and music experience, the level of ease extended to the guest via automated processes and functions etc.

Tech Enhancing the Luxury Experience

Cueing in, luxury hotels have invariably pivoted to integrating the latest innovations in AV technologies and AV equipment within such in-house facilities and 'guest experience zones' – which includes the use of lighting, audio equipment, video walls, LED screens, wireless communications, automation and much more. These AV systems, when designed and integrated astutely to blend in seamlessly with the surroundings, have proved to definitively heighten the guest experience, all while staying relatively inconspicuous.

Shedding more light on the kind of AV systems that luxury hotels look to acquire for the various spaces within their premise, **Alvin Tan, Senior Consultant, iHD Ltd**, states, “Probably the most crucial change in the role of AV within the luxury hotel domain has been that of the increasing demand for BYOD in guestrooms - with guests expecting to be able to stream their own audio or mirroring their videos onto the in-room TVs using their own devices, and also expecting to interface with technologies within the hotel, such as Guestroom Management Systems, etc. In terms of the common areas and other amenity spaces within the premise, there is a higher demand these days to upgrade the meeting room AV systems to accommodate various video conferencing tools and platforms and the needs for online collaboration systems to be readily build into AV systems. There’s also a sharp increase in demand for 4k displays, LED Walls, high-definition digital signages and high-definition screens, to ably support higher resolution content that is usually played by clients at various events and/or comprise a part of several key marketing activities.”

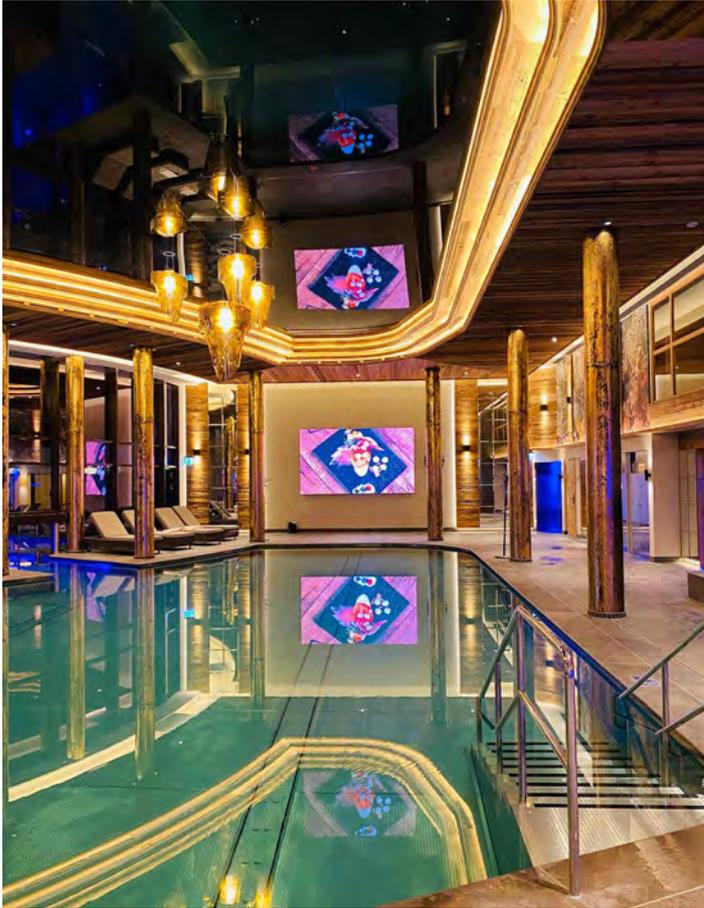
Alvin continued, “Concurrently, On the other hand, the younger generation of guests have recorded evolved requirements for sound and music quality, thereby resulting in the need for more advanced acoustical treatment considerations for the venue, and better quality audio systems and music sources. Such venues also invariably feature LED walls or deploy the use of projection mapping technology to suffice for the need for an extravagant visual appeal. Also, due to the effects of the pandemic, more hotels are looking at remote maintenance of the AV systems to reduce physical presence of external personnel in, and downtime. And finally, while ensuring that their premises are updated with the latest in AV systems and technologies, there’s an increase in the number

of properties keenly looking to abide by compliance norms in line with the LEED (Leadership in Energy and Environmental Design) certification, which essentially is a framework for healthy, highly efficient, and cost-saving green buildings.”

Reports suggest an increased use of AV for digital art in hotel lobbies, with LED panels used as the new medium to host a carousel of various digital art pieces. This can be viewed as a clear sign on the part of luxury hotels to try and engage more actively with their guests. And according to AV experts world-wide, the AV technologies and systems adopted within hotel premises these days, have been tailored to not just be more interactive in nature, but also afford a heightened sense of convenience for the guest. The goal in doing so, is to create a far more immersive experience for guests while affording all the efficiencies and ease of process that a discerning guest would expect from a world-class luxury hotel.

A key medium to extend convenience and efficient function – wireless AV technologies have now become almost integral to several spaces within the luxury hotel premise has also been noticed. For instance, the sound and light system along with the screens and air conditioning within a particular space like the fitness centre or a recreation room etc, can now be controlled by simply connecting a cell-phone or mobile device to a master control system via bluetooth. Similarly, guests can schedule their appointment at the hotel spa through their mobile devices, and have their reservation appear on a screen at the spa. Also, meeting rooms and banquets that host seminars and other such events can be configured with systems that allow audience members to send questions / share real-time feedback from a mobile device – which could then appear on a large screen / LED wall, if provisions of the same are made available within the space.

LED's Enhancing the Visual Experience



INFiLED LED Display at the Ortner's Resort Spa in Germany. Photo courtesy of INFiLED.

The use of video walls and LED panels is also complemented with the use of split screens within facility based spaces like meeting rooms, conference rooms, business centres, banquets etc – thereby fostering a more conducive environment for modern day events, which in fact have become more high-tech, interactive, and hybrid in nature. Be it a corporate function, a conference, or a private event like a wedding ceremony – modern-day hybrid event witness the real-time participation of stakeholders and individuals from different parts of the globe.

On the other hand, in-house dining options like restaurants and bars now choose to host large

video walls as opposed to conventional TV sets – which when coupled with a good quality sound system, creates a far more immersive and energetic atmosphere for patrons when viewing sporting events or any special broadcasts. Such LED walls and screens can also be noticed in some of the outdoor open areas like courtyards, lawns, and patios of certain hotel properties; and these often run informative videos about the property and/or of the locality and that various tourist activity options available for guests to explore.

At the same time, communications regarding various events scheduled to take place within the hotel or any special initiatives / guest offers or different paid marketing campaigns are also relayed on screens in elevator banks and other common areas of hotels through digital signage, with reports affirming that an excess of 50 percent of luxury hotels have now veered towards a more extensive use of such digital signage systems.

To delve into a bit of detail about LED and visual technologies used within luxury hotel settings; it must be noted that generally, the technologies are categorized as either indoor specific or outdoor specific. For the indoor area of a hotel, most manufacturers note that customers favour LED displays with a finer pixel pitch i.e. < 3mm. This is because visuals on such screens invariably would need to look more delicate and detailed, with due consideration to the fact that guests would be relatively closer to the screens in terms of physical proximity. Another point is that the visual content must ideally be viewable under any lighting condition, without the need to dim the ambient lighting. And considering the indoor nature of the application, it is essential that the process of replacing older modules with new ones be quick and efficient, and subsequently be easy to use and maintain. On the other hand,

LED displays with pixel pitches above 4 or 5 mm are commonly installed in the outdoor environment owing to longer distances between the screen and viewers. Plus, these larger screens are built to be durable such that they can run in, and withstand, dazzling sunlight or gloomy skies.



David Wei, INFiLED VP Sales.

Speaking about some of the advanced LED and visual technologies available to the market through **INFiLED**, **David Wei, the brand's VP of Sales**, comments, "INFiLED provides both indoor and outdoor LED solutions for the hotel segment. Our lineup of indoor LED solutions comprises 2.6mm, 1.9mm, and 1.5mm pixel-pitch LED products that offer high brightness, high refresh rate, high contrast ratio, and high grey scale levels, all of which contribute to an unparalleled and exceptional visual experience. At the same time, our products have a lighter and thinner frame and can form creative shapes like waves and arcs, enabling designers and integrators to better fit the hotel space design. On the other hand, INFiLED outdoor LED solutions comprise a wide range of reliable and high-performance products like the IP65 rated MV and GXII series, which assure high brightness of 5000nit that allow for clear and crisp visuals are visible at any time of the day, along with the durability to withstand all weather environments. Last but not least, both

INFiLED indoor and outdoor LED solutions are easy to maintain and have guaranteed display performance for many years."

Projecting Uniqueness

Projection mapping is an increasingly popular and effective method that luxury hotels these days resort to when they look to offer a novel visual experience to guests at their property. Using the latest in projector technologies and powerful professional media servers – hotels are now able to create visually astounding environment that may involve displaying 2D images onto flat surfaces like walls, ceilings or floors; or even by converting irregularly shaped surfaces like structural support beams, furniture etc, into a canvas that would essentially act as a video screen to display an over-abundance of creative art – be it simply images or video or a confluence of both. Doing so not only helps in transforming the 'look and feel' of the respective spaces within the hotel, but also offers management with a rather creative option to maximize the perceived value proposition of every inch of the property.



360 degree seamless projection mapping within the ballroom of the Grand Mayfull Hotel in Taipei. Photo courtesy of Epson.

For example, the Grand Mayfull Hotel in Taipei employs 360 degree seamless projection mapping within its ballroom, which offers guests a genuinely novel and bespoke environment to host a plethora of events ranging from corporate meetings and conferences to private galas and wedding ceremonies etc. Instead of patching multiple smaller screens together, the venue employs the use of 36 units of the EB-G6170 high-performance projectors from Epson, that have been precisely integrated in a manner that seamlessly blends the visual output of each individual projector with that of its neighbouring unit to eventually offer a truly consistent and flawless panoramic viewing experience for the audience. This unique proposition, which is widely regarded as the largest of its kind in Taiwan, has also proved to be a key revenue influence for the hotel – with the ballroom space witnessing heavy booking demand to host a wide range of events and activities.

On the other hand, there have also been several instances of luxury hotels deploying projection mapping capabilities to enrich the grandeur of their building facades. Perhaps the most popular example of this is “Liquid Light”, which is a permanent digital art display by artist Roark Gourley, who employed a large-scale projection mapping on the south façade of the InterContinental San Diego hotel to celebrate the coastal location of the property. As explained by popular news sources, “the digital art display is a combination of under- and above-water images, complete with slow motion and special effects, showcasing an abstract visualization of the concept of humanity in liquid motion, the beauty and flow of sea life, and the interaction between the two”. Measuring an astounding 17ft x 145ft, the permanent installation has been commissioned using five Christie HS Series 1DLP laser projectors in conjunction with Christie Pandoras Box Player, Manager, and Widget Designer.

Use of projection mapping technologies have been deployed by luxury hotels within lobbies and walkways leading to premium spaces like VIP rooms, dining spaces, leisure and entertainment areas etc – all of which have, apparently, been noted by guests as a brilliant value addition to the overall experience in maintaining active engagement and intrigue.

Lighting Up the Mood



The Argo Bar at Hongkong's Four Season Hotel featuring curated lighting design using Lutron technology by BAP Technology Consultants. Photo courtesy of BAP Technology Consultants.

Perhaps the most important aspect of the visual experience for guests once they set foot into a luxury – lighting has asserted itself as the single most crucial piece of technology and the most potent contributor to a property's success, both economic and perceptual. Reports suggest that most guests form their initial opinions about the property based on how ‘well-lit’ the place is and the kind of ‘mood’ the lighting scheme exudes. For example, the lobby of a luxury hotel is never expected to be gloomy or underlit. At the same time, it cannot afford to be so bright that it ends up being unpleasant to the eyes.

Several properties have realized these key business influencing factors, and the importance of being equipped to adequately serve the right kind of mood and ambience at crucial spaces like the hotel lobby, the ballrooms, the dining areas and other common areas, with the right kind of lighting. And while it is extremely prudent to ensure that such spaces more than adequately equipped (structurally!) to support the use of additional equipment, it is far more important to ensure that the entire premise in general is equipped with high quality lighting fixtures tailored to deliver the right kind of visual ambience relevant to each respective space.

However, perhaps an aspect that's most critical yet often taken for granted, is the kind of qualitative impact that a world-class lighting control infrastructure has on the overall lighting experience at the property.

The use of a lighting control system helps maintain the perfect balance in hue and intensity of the lighting in a room, which can be adjusted by a simple click of a button or turn of a knob, to a setting that's easy on the eyes while also complementing the aesthetics of the space and the surrounding décor. This is particularly key to spaces like ballrooms and banquets that are inherently multipurpose in terms of its application, with these spaces often being repartitioned and altered in its physical layout to better suit the unique needs of different events. Using lighting control systems in such spaces affords a tremendous amount of flexibility in altering the mood of the room with appropriate the appropriate lighting scheme that would better suit the unique layout of the space for that particular instance.

Modern day control systems also offer enhanced capabilities like the capacity to control settings and functions remotely through mobile devices connected securely through either ethernet or internet. At the same time, several systems also offer control over

extended features like occupancy/vacancy sensor, daylight harvesting, mood setting, automated window-shades, time clock settings and personalized dimming control. The potential for hotels to do more and achieve more through the use of lighting control systems not only acts as an excellent piece of technology that simplifies operation support and lowers maintenance cost; but also helps the establishment meet with current standards of energy efficiency.



Marco Tang – Director of Sales, BAP Technology Consultants Ltd., corroborates “The hotel industry has seen an increased awareness of sustainability issues amongst both guests as well as management; and “green” initiatives that make an establishment more sustainable invariably ends up enhancing their reputation and boosting brand awareness. Lighting control systems from Lutron can eliminate up to 60% of wasted lighting energy in buildings by ensuring our clients are empowered with the capacity to deploy the right lighting strategies. Our systems have been designed to enable our users with unparalleled control over the ambience and mood at their establishment, while increasing process efficiency and championing sustainability.”

Alluring the Aural Senses



Bosch pro audio brands EV and Dynacord feature at the outdoor entertainment space of a 5-star hotel in Turkey.

Akin to visual and lighting technologies – sound too plays a key role in shaping the overall ambience of a luxury hotel. From an auditory perspective, it is essential for guests to enjoy consistent tonal signature, but at varying intensities appropriate to the space setting. Whether guests are in a lobby, spa, restaurant, professional centre, the ballroom / banquet or any other common space, it's crucial the sound system that adorns the space be designed to specifically meet the audio needs of that particular environment without compromising on the overall listening experience or aesthetic. Sound masking at crucial locations like dining venues, spas, etc becomes essential as it offers the guests a more comfortable and less distracting ambience (for example, masking the noise from the kitchen, adjoining sections and outdoor areas). Plus, it is also essential for such audio systems to be designed and installed in a manner that allows for ease of use while also simplifying the process of maintenance and regular upkeep. The more integrated the different types of audio equipment are throughout the facility, the easier it is for facility

managers and their staff to be able to do this. Several manufacturers across the globe have taken note of these crucial factors to reinforce their install sound portfolios with products and technologies that can efficiently meet these needs, perhaps deliver even beyond.



Bose Professional – considered as a market leader for providing audio solutions for key segments like hospitality and retail – has over the years, engineered tailored product lines specifically for

such applications. **Adam Shulman, Market Category Lead, Bose Professional**, informs “For hospitality, the aesthetics of technology are crucial to ensure an optimal guest experience that also complements or fades completely into the surroundings. Bose solutions include the EdgeMax line, which utilizes the unique PhaseGuide to deliver the SPL, directivity, and fidelity that would typically require a surface mount speaker, but in a flush-mount form factor. This allows designers and installers to deliver high-impact audio without the corresponding aesthetic impact of a big loudspeaker and bracket on the wall. And with integrated design considerations, such as QuickHold spring-loaded mounting arms and a magnetically attached grille, EdgeMax installs very easily as well. And to tie our products together so that they can be installed, controlled and managed easily, we have the ControlSpace ecosystem. This includes processing, controls, I/O and amplifiers that can all be configured and controlled within a common set of software and are perfectly matched to our loudspeaker portfolio through our Bose loudspeaker EQ. Not only does this make audio systems throughout the venue easy to manage as a solution, but it enables designers to deliver the hotel staff and customers with a consistent user experience as they go from room to room, and from a brand that hotel guests immediately identify as representing the highest level of quality.”

Another brand recognized as synonymous with the hospitality industry is Robert Bosch and its pro audio brands EV and Dynacord, which holds a reputation for a rather extensive portfolio of products, each with a unique set of features and capabilities, and at price-points to suit a variety of different budgets and scales.

Guy Low, Senior Creative Manager, Robert Bosch LLC, discloses, “Overall, the Bosch family of brands provides countless advantages for hotel applications from life safety and background music, to control and entertainment. For example, our weatherized



loudspeakers from Electro-Voice have the same voicing as their indoor siblings; So as guests move from one area to the next, the audio experience will be consistent. There is even the option to take this consistent audio experience into the hotel's swimming pool with our unique UW30 underwater speaker. Then of course, we have product lines like the X-Line series, which have been designed to meet the needs of spaces like nightclubs, bars and other such performance spaces where the music impact needs to be more upfront and prominent. Enhancing the capabilities of Electro-Voice loudspeakers are the powerful electronics and software from Dynacord. The Dynacord MXE5 matrix mix engine combined with SONICUE sound system software provides incredibly detailed control; and when combined with the TPC-1 touch panels deliver a stylish look with an intuitive user interface that will be simple for all hotel staff to use.

Solutions from Bosch also offer the ability to network whole systems. Our OMNEO IP architecture is on board all electronics and fully compatible with Dante and AES networking protocols so can communicate simply with any equipment on the network. Our distributed sound system installations for hotels are IP networked and can be either centralized or decentralized. As we use standard IP technology, we can often use the existing IT infrastructure of a

building and save on installation times and cost for cabling. Another key factor is meeting regulatory requirements for safety; where the Bosch family offers fully integrated solutions consisting of our pro sound systems from Electro-Voice and Dynacord combined with certified and safe public address and voice evacuation systems from Bosch, such as the fully IP-based PRAESENSA system. And perhaps most crucial of all, our solutions can provide long-term benefits to hotels, particularly around cost of ownership and responsibility towards the environment. A great example of this are the advanced amplifier technologies like Ghost Power and EcoRail developed by Dynacord, which reduce the power requirements of our systems, all while being extremely easy to administer and control.”

An Expert’s Touch

It is evident that there’s plenty of high-performance products and systems within the AV landscape that are either specifically created to meet the needs of hospitality establishments like luxury hotels, or at the very least, that can be tailored in a variety of permutations and combinations to precisely suit the technological requirements of such venues. However, as stated earlier, bringing these different products and systems together to work seamlessly with each other within a technological infrastructure that is as efficient as it is robust, takes an immense amount of planning and attention to detail; and often involves the need for several different teams to coalesce efforts and resources.

Speaking about this in detail, **Sachin Jain, Director of PLAY Technologies** reveals, “AV technology is now an inherent part of any luxury hotel in the world today; and its impact is visible in every aspect of the establishment – from guest rooms to the common areas. And it is undeniable that hotel spaces today are



SACHIN JAIN

DIRECTOR OF PLAY
TECHNOLOGIES

expected to be extremely dynamic – both in terms of the usage that it offers to different sets of customers and the inherent nature of the space. Owing to this, it becomes extremely important to ensure that the products and systems selected for each space within the hotel are flexible enough to cater to the diverse operational dynamics, yet be efficient enough to not compromise on aesthetics and design which is of prime importance to the venue management themselves. Furthermore, the projects are also cost sensitive as the ROI needs to be maximised. All of these together pose a very complex challenge, which further asserts the absolutely crucial importance for hotel management and decision-makers to ensure that they onboard a reputed AV Consultant right at the very beginning of the project; and not rely on MEP or IT team to address the AV needs of the establishment. Per this, AV consultants will have ample time and opportunity to work closely with various stakeholders including the hotel operator, hotel owner, the interior designer and other crucial personnel including the structural and engineering teams, to ensure best implementation of the various AV systems in alignment with design and cost considerations.”

BAP Technology Consultants
BOSE Professional
PLAY Technologies
ihD Ltd

BOSCH
Christie Digital
INFILED
Epson

Staying Ahead with Differentiated Guest Experience



COVID-19 has impacted every sector globally over the last two years, and the hospitality sector is among the hardest hit. Despite that, according to an August 2021 JLL Global Hotel Investment Sentiment Survey, 51% of investors responded that they are increasing their acquisition strategy substantially, with North America, Europe and Southeast Asia taking the lead. Investors feel that there will be a strong rebound in demand for the hospitality sector as more countries open up and the covid situation becoming a norm.

We are already seeing some easing of travel restrictions in several countries, which will undoubtedly spur demand for business travel. In a Deloitte Corporate Travel Survey 2021, 26% of corporate respondents expect to clock equivalent expense on travel in the second quarter of 2022 compared to 2019, with the stats going up to 54% by the fourth quarter—all showing a positive impact for hotels in the coming year.

So how do hotels ride on the upcoming wave of business travel and increase their profitability?

According to a Skift and Oracle survey, 67% of hotel executives strongly agree that non-room revenue opportunities will help supplement variations in room demand and become a core attribute of the business mix in the next five years. “Potentially, the Meetings and Events revenue stream represents about 20% - 35% of total revenue, revealing the need for active optimization,” said Niki Van den Broeck, Head of Business Development at Get Into MoRe, a leading Business Intelligence tool for MICE.

Hotels have an excellent opportunity to create differentiated guest meeting experiences at their meeting rooms, larger meeting spaces and expanding into a co-working environment. Hybrid working is here to stay, and converting existing real estate to co-working space within the hotel will capture new revenue streams. The same space can be used by

business travellers, especially if it comes with all the comfort and ease of use of technology.

What is needed to create a seamless experience for guests using hotels for their meetings or co-working space?

As the laptop has become the de facto meeting tool nowadays, guests will require a solution that allows them to bring their own meeting (BYOM) device such as the laptop and connect wirelessly with ease to a display, regardless of their meeting software. With the prevalence of hybrid meetings, the need for an intuitive video conferencing room solution is necessary to keep up with the increasing demands of the current users. A quality video and audio system with plug and play connectivity also help enhance the overall meeting experience.

That is where Barco's ClickShare and Jabra PanaCast comes into play. The two offer a superb pairing of meeting solutions that meet the hotel operator's needs to reinvent and generate new revenue streams. Barco's ClickShare enables users to wirelessly present from their laptops. Simply connect the ClickShare dongle to the laptop, hit the ClickShare button to connect wirelessly to the display, and the user is ready to share his presentation instantly. ClickShare works with any device, conferencing platform, camera, microphone, or reinforcement speaker in the meeting room, turning it into a wireless conferencing room system that you can run from your laptop. Installing ClickShare's Enterprise-grade solution in the hotel further ensures security for users of the system and offers central management, analytics and insights for the hotel operator.

When combined with Jabra PanaCast 50 video conferencing bar, the meeting space becomes fully immersive and collaborative. The PanaCast 50 provides Panoramic-4K resolution with 180 degrees field of view that covers the entire room from wall

to wall. Intelligent AI technology zooms in to active speakers making remote meetings more dynamic. Topped with eight professional-grade microphones and 2-way audio technology, the PanaCast 50 delivers more natural conversations and reduce disruptive background noise to ensure professional and engaging meetings every single time.

Hotel operators can also utilize the Barco ClickShare and Jabra PanaCast solutions for their internal and external meetings and presentation needs, ensuring full use of the equipment and benefits for both guests and in-house consumption, delivering a solid return on investment.

Unlike proprietary videoconferencing room systems, ClickShare and PanaCast solution does not require any retrofitting of meeting rooms and huddle spaces, thereby minimizing business disruption and infrastructure investment. The plug-and-play, easy-to-use and one-click meeting experience provides intuitive and seamless content sharing and meeting connection without any learning or training needed.

By implementing an agnostic and flexible meeting and collaborative meeting solution within the hotel, operators can stand out from the competition and offer a strong value proposition to meet the fuelling demands of local and international corporate customers. By staying ahead of the pack and providing a much needed and appreciated value-added service for business travellers and remote workers, hoteliers can contribute to an outstanding and holistic experience for their guests.

To find out more about hybrid meeting trends and technologies from Barco and Jabra, visit:

[Barco-APAC Hospitality and MICE](#)

Weaving AV Over Waves: A Unique ‘Swadesh Darshan’

Pan Intellectom Creates Immersive Experience at Chitrakoot in a Unique AV Exploit

by Ram Bhavanashi



The Ramayan Gallery featuring a 270-degree, large, panoramic view digital interpretation screen.

FACTFILE

Project Name: Swadesh Darshan/ Rāmāyaṇ Circuit

Project Location: Chitrakoot-UP, India

Project Segment: Tourism/Infotainment

Project owner: Govt of India & Govt of UP/Ministry of Tourism

Project operator: UP Tourism

Project AV Budget: ₹7.66 crore (approx. US\$1,004,234)

Project Design Consultants: Amardeep Behl (AB Designhabit)

Project Systems Integrator: PAN Intellectom

Project Highlight: 270-degree Digital Interpretation, Holographic Projection, 27-metre Aqua Screen as a permanent install on moving river waters

Key AV Brands: Christie DLP Laser Projectors, EV Audio systems, Samsung Displays, DTS Lighting, HP Displays, Biamp DSP, Coolux

Swadesh Darshan – a Government of India scheme to promote tourism and culture in the country – is taking a new technology expression, even as it leverages the format to create many things to many people, and a new horizon for AV. The latest case in a point is the unique Ram Ghat project in Chitrakoot – the famous pilgrim place in Uttar Pradesh, India – where audio-visual technology is employed to weave in an immersive experience. An SI Asia exclusive.

A Curtain Raiser to a Setting....

Chitrakoot (in Uttar Pradesh) is a place that is steeped in rich cultural antiquity, having been the geographical path that Lord Rama trod for eleven long years of His mandated 14-year exile, before He moved to Daṇḍakāraṇya (in Madhya Pradesh/Maharashtra).

For any Indian (with an understanding of the country), a mere thought/reference of the place springs so much connect with the place, and its *place* in the identity of the country and people inhabiting it.

Imagine visiting the place, and watching all that unfolding in front of you via digital technology employing sophisticated audio-visual solutions. Touch-screen panels; edge-blended laser projection system; 270-degree immersive projection; holographic projection on pepper scrim and aqua screen – on the river waters – and more!

It does create a vibe. A new verve, and a nerve for one's identity- even as an irresistible wonderment about technology takes over one's mindscape.

The Backgrounder...

That's exactly what the Department of Tourism, Government of Uttar Pradesh sought to do. In its pursuit of promoting tourism in the State – as part of the mission *Swadesh Darshan* – it explored the technology domain for an inviting and immersive story-

telling mechanism that could primarily attract people, creating that essential vibe, and simultaneously achieving the 'objectives' of the mission (**read page 64: *Swadesh Darshan – an integrated inner development***)



“Chitrakoot is one of the most important destinations in the Ramayana Circuit identified by the Government of India under the Swadesh Darshan scheme,” explains **Mukesh Kumar Meshram, Principal**

Secretary, Tourism & Culture, Government of UP.

“It plays a very critical connect in the epic story of Ramayan that the country identifies itself with,” he reasons. “(Considering the technology living today) it was important for us to present all that the place characterizes in proper manner using technology.”

Mukesh Kumar, who is also Director-General of Uttar Pradesh Tourism, led the project from front guiding it with vision and purpose.

While the very vision of the *Swadesh Darshan* mission – launched in 2014-15 – was to usher in an integrated development of theme-based tourist circuits in the country it envisaged to synergise with other programmes like *Swatch Bharat Abhiyan*, *Skill India* and *Make in India* initiatives with the main objective of positioning tourism sector as a major growth engine- for employment creation, awareness about the cultural treasures the country possesses, and identity it stands with on the global front. One of the apparent considerations for the UP Tourism was to explore and harness digital technology for developing the potential tourism spots – in this case, Chitrakoot – and make them experiential. While providing immersive experience, the initiative serves multiple purposes like growth of tourism industry, promoting the awareness among citizens about country's heritage and culture,

creating economic opportunities to various segments of society and more.

Technologies like lasers, aqua screens and digital intervention have been in places of visitor attraction in advanced markets for a few years now, observed the official, people needed to save/spend huge amounts of money to travel and experience these infotainment events.

“While such fascinations have been resulting in significant draining on the country’s foreign reserves, the content offered there is pretty generic like Mickey and Donald,” Mukesh observed. “India being a treasure trove of culture and heritage, a simple thought has been that we can create thousands of stories and narratives, and present them via these technologies to our young generations.”

According to him, an initiative like this stands to achieve the twin objectives of connecting the citizens with their country’s history, culture, identity and value systems on one hand, and, on the other hand, creating diverse opportunities of employment, connected sectorial development and more.

That being the thought process, the Union Ministry of Tourism has identified several potential tourism places across the country – based on important themes that connect with the country’s heritage and culture – and initiated the ambitious scheme of *Swadesh Darshan*.

The Setting in Uttar Pradesh - Ramayan Circuit

The Government of UP shortlisted Chitrakoot – owing to its place in Ramayana and potential for tourism – to create a technology-driven narrative of the Epic that can offer an experiential journey to the place. The vision was to create life-like imagery of Lord Rāma,

and His consort Sītā through innovative audio-visual narrative. Following the due diligence on the initiative, New Delhi-based systems integrator Pan Intellectcom landed the project. The theme of the narrative was to reconstruct the story of Ramayan, highlighting the connection Chitrakoot has with the revered Epic.

Thus came in **Pan Intellectcom** as the project’s design-build solution provider, with **Amardeep Behl** of AB Designhabit value-adding the project as its Creative Director. The AV-powered tourism-promotional project at Chitrakoot thus comprised:

- A Rāmāyaṇ Gallery- of touch-screen panels disseminating diverse info on the finer aspects of the Epic, the highlight of which is a 270-degree, large, panoramic view digital interpretation screen
- A holographic projection beaming interesting tales from the epic
- A Sound & Light show- on the Mandakini river that is highlighted by a 27-meter aqua screen with holographic effect, apart from lasers and LED lights
- The aqua screen is a unique feature in that it is made as a permanent install on moving and fluctuating water levels of the river. Permanent aqua screens are normally installed on still waters, and very rarely done on moving waters.

The **Ramayan Gallery** essentially features two visual components – a series of interactive touch-screen LCD panels and a huge 270-degree screen – apart from accompanying audio syncing in with the content being beamed via the visuals. The LCD panels comprised six each of Samsung 55-inch, and 32-inch Full HD LCDs with embedded IR/capacitive touch, apart from six more of 18-inch Full HD all-in-one panels from HP. The panels wall-mounted in the long U-shaped hall



The Ramayan Gallery featuring touch-screen LCD panels.

are touch-enabled to display content- in this case by default knowledge bytes from Ramayana.

As one moves into the digital interpretation zone, one finds the large 270-degree screen that spreads on three sides measuring three meters approx. on left and right and 22 meters wide in the centre, with three meters in height. "It's white painted plain wall surface, enabled for projection," informs Sukhjinder Singh of Pan Intellectom, who had been deeply involved with the project.

This, 30-meter approx. screen is tasked to as many as seven **Christie laser projectors** – the 8200-lumens, 6000:1 DWU850-GS – with two projectors facing both the side walls, and five projectors taking the centre wall, all edge-blended to have one single seamless image. "When the content like that of Lord Rama's passing the days in forest, and demolishing the demons, with the syncing audio background on such a large screen all around, the immersive experience is simply unparalleled," explains the exec.

Another deeply engaging experience in the same gallery – as one move out from the large screen experience – is the holographic projection rendered with a 3.5m x 2.2m screen that is addressed by two Christie laser projectors – the 6700-lumen DWU630-GS – aimed at furthering the experience.



"We worked hard to curate the content on one side, and choose the format of technology that presents the content in a truly immersive fashion," explains **Harbir Singh, Managing Director of**

Pan Intellectom. "Selection of requisite audio-visual systems go in tune with the technology format," he elaborates. "The experience is there to take."

Lighting set-up involved as many as 40 LED devices comprising a combination of 15 five full colour (RGB), 35W luminaries with 1550 lumens output, and 10 21W full colour RGB luminaries with 920 lumens output that is further augmented by eight full colour (RGB) 10W

luminaries with 430 lumens output- all coming from **DTS**.

They are further augmented by a 14.2W, DMX-controllable RGB LED strip and one 4-port USITT DMX-converter- both coming from **Neo Neon**.

These lighting devices are powered by five units of **SGM LED drivers**, in addition to three more Dirvenet 832 units from DTS.

The **Audio Component** almost wholly done in with **Electro-Voice systems**, comprised a combination of as many as 18 EV ID-S5.2B transducer two-way speakers, calibrated to perform in tandem with two pairs of EV ID-S12.1B subwoofers- all being powered by five numbers of EV C1300FDI power amplifiers with built-in DSPs.

The **FX and show kits** for the special effects of the content had as many as 17 units of licensed Coolux software synchronizations going into the AV systems integration.

Ram Ghat – Weaving AV on Waves

If one were to say digital gallery and interpretation

is more or less a commonplace now worldwide, the aqua screen exploit on the Mandākinī river is certainly one for reckoning. That aqua screens are generally installed as a temporary screens, and that too on still waters, this screen is not only a permanent install, but also installed on the continually moving waters of the river.

The screen, measuring 27m width x 13.5m height, is an essential part of a 30-minute, animated content, specially-curated from the Epic, and is installed in the river in front of the Ram Ghat. That it is a transparent aqua screen, it required a rear projection which was done by means of two **Christie 25000-lumen DLP Laser projectors** coming with motorized horizontal and vertical lens offset.

An interesting fact of geography here is that the place Chitrakoot falls in two States of Uttar Pradesh and Madhya Pradesh, and this part of the territory where the rear projection systems were to be discretely positioned fell in the jurisdiction of Madhya Pradesh. The UP Tourism officials and the systems integrator had to obtain permission from the authorities concerned in Madhya Pradesh before they installed the system.



(left) The Holographic projection in the Ramayan Gallery; (right): 27mx3.5m Aqua Screen on Mandākinī river done with Christie laser projectors.



More, that the river *Mandākinī* will have fluctuating water levels between summers and monsoons, the design-install team had to place the Control Room at an elevated height as also raise the base height of the gen set to be able to avoid any untoward incident in the event of raising water levels.

The sound and light show that the screen is meant for is powered by as many as 16 units of 4600-lumen 100W full colour RGBs, calibrated to illuminate in tandem with eight units of 200W 8900-lumen 24 full colour RGBs, accompanied by another 16 units of Drivenet 832s- all coming from **DTS**.

The control room set-up is highlighted by a pair of **Kvant Atom 9hps laser projectors** with Titan laser workstations.

The audio component is eight units of Electrovoice (EV Zx1i-9B+EVCT) weatherized cinema surround loudspeakers meant for outdoor application, augmented by two pairs of Electrovoice (SX 600) two-way loudspeakers, and powered by three units of Electrovoice EVF2151D-FB subwoofers. While the audio is powered by one pair each of EV C3600F

di, and EV C1800F di amplifiers, the system also has one unit of **Biamp's digital cinema processor** roped in to effect the surround sound experience.

"This project is unique in its own right," recalls Harbir. "While its very spiritual nature connects one and all across the sections, and segments,

the presentation formats chosen made it all the more exciting, and at times challenging too," he explains. "We had worked hard, with Amardeep's expertise with technology and content design coming to place – apart from the expert specifications from the Tourism Department – to curate the content and create an experience that the visitors carry with them."

According to him, the support from the officials of UP Tourism was simply reassuring. "Without the support of the officials – particularly Shri Mukesh Kumar Meshram, and Shri Awanish Kumar Awasthi – this project wouldn't have shaped the way it is today," he acknowledged.



"Pan Intellecom has done a great job," commends **Awanish Kumar Awasthi, IAS, Additional Chief Secretary, and Secretary-Home, Government of UP.**

"They like to work and add value to the variety and quality of work," he lauds. "It is there to experience."

Pan Intellecom

Swadesh Darshan – An Integrated Inner Development



Swadesh Darshan Scheme is a special initiative launched in 2014-15 by the Ministry of Tourism, Government of India to usher in an integrated development of tourism, and its allied industry segments, besides generate multiplied employment.

It is envisioned to synergise with other schemes like Swachh Bharat Abhiyan, Skill India, Make in India etc. with the idea of positioning the tourism sector as a major engine for all-round development of the country.

While the mode of operation is about identifying, and developing potential tourist places in the country, working in close association with respective State Governments, the objective is to create increased employment opportunities even as it seeks to raise the awareness among citizens about the country's rich cultural and historical heritage, and the indelible connect it has with the country's identity.

Given the vast expanse and deeply enshrined heritage places in the country, it was also envisioned to identify at least 100 potential tourism places from across the country. As part of the mission, as many as 15 theme-based circuits have been identified for development.

The 15 circuits included:

- Buddhist
- Coastal
- Desert
- Eco
- Heritage
- Himalayan
- Krishna
- Northeast
- Ramayana
- Rural
- Spiritual
- Tirthankar
- Tribal
- Wayside Sub scheme
- Wildlife

While the initiative at the outset aims at ushering in developing these circuits, the underlying vision is to harness latest digital technologies to disseminate the information in manner that it not only attracts the citizenry but also connects them with the country's identity, and value systems.

The Chitrakoot project being highlighted in this issue, is part of the Ramayana Circuit in UP.

SIA will bring an AV integration relating to a Buddhist circuit in the next edition. Watch out for it.



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