

# hiddenwires

ISE 2016 Supplement

## House Rules

Custom Integrators Take Charge  
of the Smart Home Economy



### Domestic Affairs

Evolving technologies will continue to reshape home AV integration

### The Marriage of AV and IT

Mike Blackman discusses the growing partnership between integrated systems and IT networking

### Product Focus

ISE 2016's show floor has more products than ever for residential CI Pros to explore

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# Letter From the Editor

ISE is the biggest trade show catering to residential and commercial AV integrators in the world. This year, as the expo's floor expands, the focus widens to include the relevance of information technology in the integration category. The HiddenWires team has cast its net far and wide to catch a snapshot of what's of special interest to custom home integrators, including observations about the continuing smart home evolution as it dovetails with systems integration and how integrators can take the lead in the connected home economy.

Mike Blackman, ISE's Managing Director, also took the time to walk us through the show floor, highlighting key demonstrations, new partnerships, and training sessions essential to getting the most out of our four days here in Amsterdam. For me, seeing Michio Kaku, my physics professor

at university, deliver ISE's closing keynote address is worth the price of my flight from Barbados.

We know that you love to see how your colleagues have incorporated the vast array of products available to you, so this year we have included five case studies covering everything from home and backyard cinemas to luxury show homes, along the way highlighting unique solutions to challenging integration problems.

Lastly, we close this print edition with a few choice products that are likely to be big hits with integrators in 2016.

Enjoy the show!

Best wishes,

**Llanor Alleyne, Editor, HiddenWires**



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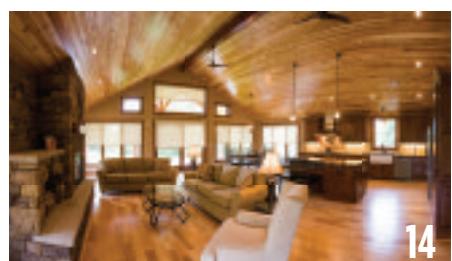
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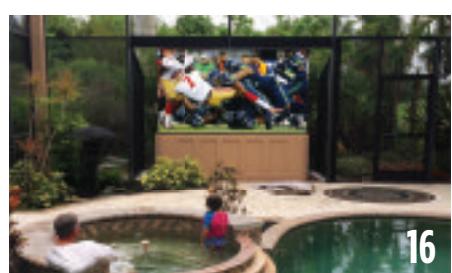
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# Domestic Affairs

A host of evolving technologies will continue to reshape the technology-integrated home space.

*By Llanor Alleyne*

The slow enmeshment of custom residential integration with the quickly emerging smart home market has been a defining theme for many of our industry's gatherings in the past few years. It can be argued that custom integration has laid down the frame work for what is now an enthusiastic embracing of all things connected home, smart home, and the ever peaking Internet of Things. In the face of all of this innovation, the custom integration space is in the midst of a dual transformation: refreshing aspects of our channel while incorporating the push toward a smart home concept that now includes telcos, major consumer retailers, governmental policies, and a general public waiting to see where this all goes.

"It is likely that we are going to see some more evolutionary shifts in technology, as well as some large shifts in consumer buying behavior," noted Peter Aylett, technical director for integration firm Archimedia Middle East, in his January 2016 'Best Practice' HiddenWires column, which highlighted custom integration's evolution rather than radical revolution.

But what aspects of this quickly changing landscape do integrators need to incorporate to stand as the experts and innovators in an expanding field?

## Automation & Entertainment

Consumers—so well versed in swipes, taps, and one-button control thanks in large part to mobile devices—are also now

familiar with the gestural and functional aspects of home automation after more than 10 years of exposure to its fantastic possibilities. For Aylett, this year marks the beginning of the commoditisation of home automation, largely driven by IoT ecosystems such as Samsung's SmartThings.

"Try this exercise: Draw up a functionality matrix for a few of your customers' systems and compare it to what could be done with commoditised IoT products," Aylett advised. "Of course, there is still the reliability argument but customers are

becoming increasingly savvy to the fact that often you can do more using off-the-shelf consumer products than you can using the hard programmed, rigidly configured stuff we often supply. So, the focus is shifting as are the opportunities."

Also establishing its footing in the home entertainment space is immersive audio, which has gained industry support over the past two years as the go-to setup for home cinemas, unlike its visual kin, 3D, which has fallen short of consumers' expectations.

**"It is likely that we are going to see some more evolutionary shifts in technology, as well as some large shifts in consumer buying behavior."**

**Peter Aylett, Technical Director, Archimedia Middle East**



This year marks the beginning of the commoditisation of home automation largely driven by IoT ecosystems such as Samsung's SmartThings platform—included in all of the company's new SUHD televisions.

**The continued price compression for displays will keep size-to-size pricing relatively close to today's 4K/UHD displays, but the cost will lie elsewhere."**

**Michael Heiss, Writer and HiddenWires Columnist**

"Moving into this year, we will have a good version of a 'perfect storm' as the vast majority of system designers and installers are likely to provision for the extra channels used by Dolby Atmos, DTS:X or Auro3D speakers in a variety of configurations and the encoded content will multiply through different physical/optical and electronically delivered conduits," predicted Michael Heiss, CI observer and HiddenWires' 'Letter to America' columnist. "You will no longer be able to call it, 'Just another thing 3D was' moving into 2016."

Heiss also forecasts that 'sensorization'—or data reporting—of common household devices such as thermostats, water irrigation controllers, and locksets will become more prevalent.

"Going forward we may see the sensor itself as a device that does not control something, but rather reports and leaves it to something else to analyse and react," Heiss said. "A good example are the sensors that are part of the Ecobee thermostat in my home, or the motion/heat/vibration sensors common to security systems. They report the news, but can't act on it themselves; that is left to some other connected device."

Augmented reality and virtual reality are also receiving a lot of attention in the home space, with global online retailer Amazon recently revealing it has approved patents for the creation of a gesture-controlled interface and system that allows users to interact with virtual objects.

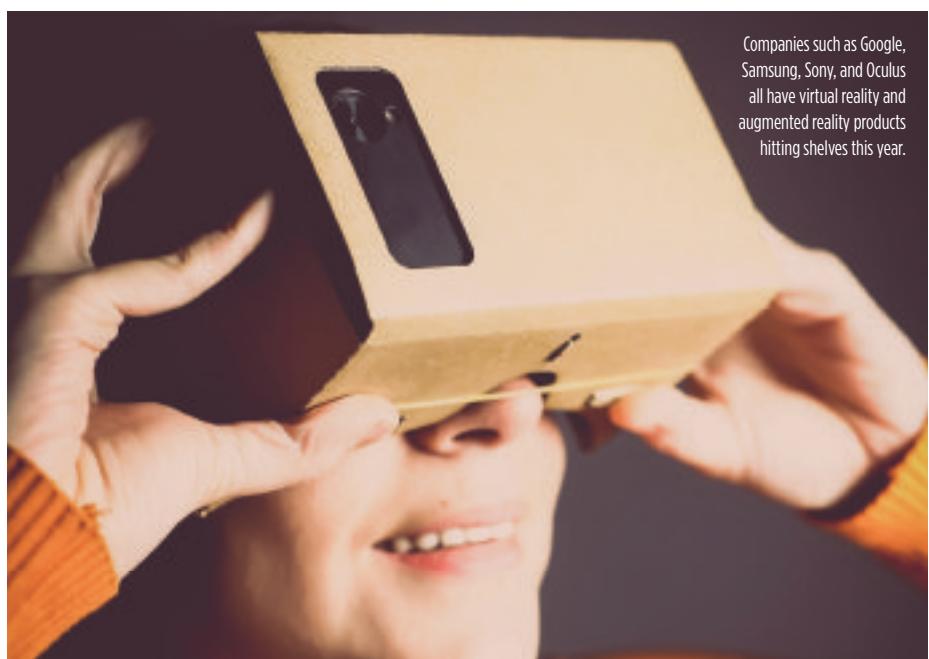
"After years of promised introductions, started to a limited degree last year, 2016 may well be the 'make it or break it' year for virtual reality and augmented reality," noted Heiss. "The ability to see created images overlaid on reality, or augmented reality, is somewhat assured of a place on [integrators'] enterprise side for use in presentations and planning."

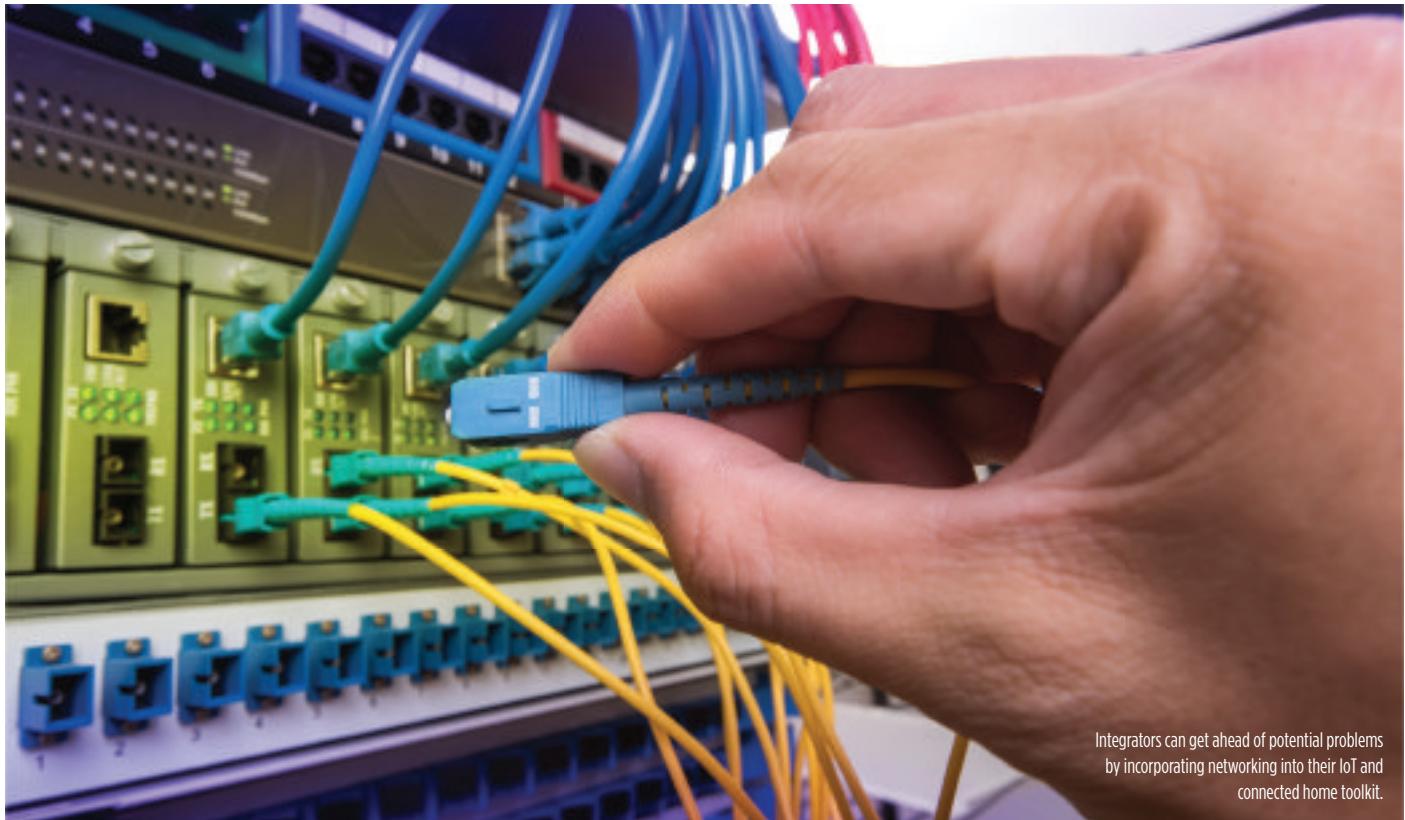
Companies such as Google, Samsung, Sony, and Oculus all have virtual reality and augmented reality products hitting shelves this year.

## HD Content Delivery

For Aylett in his forecast for 2016, HDMI 2.0/2.0a and HDCP 2.2 will pose the biggest challenge for integrators and will

Companies such as Google, Samsung, Sony, and Oculus all have virtual reality and augmented reality products hitting shelves this year.





Integrators can get ahead of potential problems by incorporating networking into their IoT and connected home toolkit.

cause confusion among consumers as to which connection type they need to accommodate new 4K sources and HDR video. HDMI 2.0/2.0a, which supports the display of HDR (High Dynamic Range) content, is likely to become mandatory in new installations as we work to deliver products that display the benefits of HDR.

It is unlikely that any of the current HDR systems, including Dolby Vision, the newly combined Technicolor/Phillips scheme or the widely used HDR10 approach defined by SMPTE, will gain total prominence. "HDR is arguably a far bigger advance in display quality than UHD/4K as it's applicable to any screen size at any viewing distance unlike 4K where you have to be close enough to notice the difference," Aylett said. "We've talked for years about better pixels being more important than more pixels, and HDR combined with ITU Rec.2020 (much wider colour gamut) will deliver on this potential starting in 2016."

For integrators this means ensuring that clients' displays as well as supporting components such as surround processors AVRs are also capable of delivering HDR content.

"For your system eco-systems this will come at a variety of installation costs," noted Heiss. "The continued price compression for displays will keep size-to-size pricing relatively close to today's 4K/UHD displays, but the cost will lie elsewhere."

"For example, to insure that the system is capable of dealing with the requirements of 4K and HDR/WCG, make certain that all devices in the chain, particularly AVRs or surround processors include HDMI 2.0a with 600MHz bandwidth and HDCP 2.2. Do the upgrade once so that things will be capable of whatever the content world throws at us in 2016—at least until 8K rears its head sometime later in the decade."

To enable quick and reliable high-definition streaming

content delivery, the home's networking infrastructure has to be able to handle the heavy output. This has been highlighted over the years with the stratospheric popularity of services such as Netflix and Hulu, and the battles that have been fought with telcos and cable companies to make available the bandwidth needed for viewers to enjoy these services. But, with IoT applications and appliances also gobbling up bandwidth, Aylett encourages integrators to get ahead of potential problems by incorporating networking into their IoT

to install and configure enterprise grade networking products. Understand how to survey and manage the increasingly complex 2.4 and 5Ghz wireless spaces, and do this using sound engineering principles that you can show your customers."

As networking has become a core aspect of custom integration so too has remote systems management—the evolutionary upgrade of the truck roll out.

"Now that almost every device touches the network, it is easy to install remote monitoring systems for your customers," noted Aylett. "These ensure that critical components are monitored to allow you to react to faults before your customers even know something is wrong. For those business owners looking for an exit strategy from your company, getting a recurring revenue model into your business is the best way to increase its value. Maintenance contracts based on remote monitoring are an excellent first step to doing this."

## **"As networking has become a core aspect of custom integration so too has remote systems management – the evolutionary upgrade of the truck roll out."**

and connected home toolkit.

"Almost every system relies on having a robust network connection these days," Aylett said. "So many of the horror stories surrounding commoditised IoT stuff is based upon them not having reliable connectivity. This is a domain where we can add huge value as an industry. As the prices of the devices go down, so the price of the network goes up. Get some training on how

## **Beyond New**

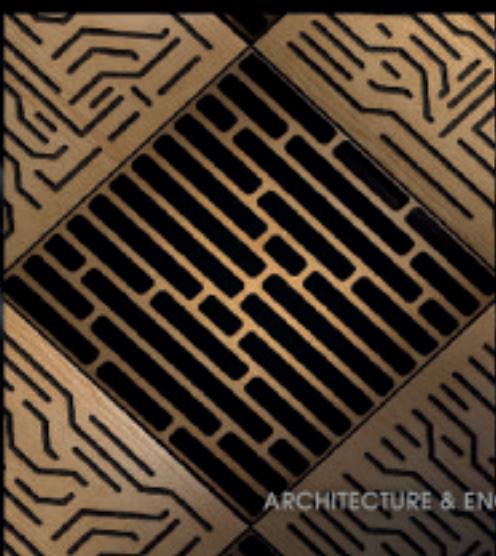
Although IoT as well as smart and connected homes are dominating the technology conversation, most consumers are still interested in what their existing products can do. Believe it or not, being able to control a music system or dim the lights from an iPad are still simple control integrations that most consumers take pleasure in. For many integrators, these clients make up most of their revenue base and are often the most satisfied customers.

"At the high end for the top one percent, there will always be highly bespoke systems," Aylett said. "For the other 99 percent embrace the IoT revolution and ensure that your customers have awesome experiences across all their technology interactions no matter where they are."

*Llanor Alleyne has reported on the custom integration market for more than 10 years and is the Editor of HiddenWires.*

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Mike Blackman, ISE's Managing Director

# The Marriage of AV and IT

Mike Blackman discusses the larger presence of IT brands at ISE 2016 and what that means for residential integration professionals.

*With Llanor Alleyne*

Last year, Integrated Systems Europe's Managing Director Mike Blackman predicted even bigger things for ISE 2016, including more space, more exhibitors, and an attendance to surpass the 50,000 that walked the RAI in 2015. By early October last year, ISE organisers were proud to announce that the show floor was sold out—up by 11 percent over the last edition—an encouraging sign with one more day added to the show to accommodate greater foot fall. With ISE's focus on bridging the gap between IT and AV this year, Blackman talks with *HiddenWires* about what tools integration professionals can take away to continue leading the 'Smart Home' charge.

## What can we look forward to at ISE 2016? What are you most excited about for this year's show?

We're looking forward to ISE being four days for the first time in its history. Not only will it give exhibitors and attendees more time with each other, but also the extra day means we have more education, training and specialist theatre sessions than ever before. That includes the Residential Solutions

Theatre, which will showcase expertise from around the industry.

You only need to glance along the list of home automation exhibitors to see the strength of coverage, which includes a number of new exhibitors alongside all of the big names you would expect.

Generally speaking, I'm really looking forward to Dr. Michio Kaku's Closing Keynote, taking place on the morning of the final day. He is a compelling character, with a unique perspective of the world and what the future holds. His keynote provides a genuine opportunity to hear from a genius of our time.

Last year's Smart Building Conference took a Pan-European approach to examining both the commercial and residential integration market. What can we expect to be the focus of this year's conference?

While the focus for this year's Smart Building Conference continues to be pan-European, the theme is: 'The Network is

**"Acknowledging where we are and foreseeing key industry trends will help integrators to find profitability."**

the Building'. As attendees have come to expect, the SBC will stage a full-day's programme including expert speakers and thought leaders drawn from across the international smart building industry, who will explore how the IP backbone changes the way we work, the way we live, and the new services now possible with today's buildings. There will be two tracks: one for commercial and the other for residential. Visit the Smart Building Conference website for more information about the programme and for booking details.

ISE recently announced that it will be working with various IT brands to welcome this sector into the integration space, something that has been happening informally for the past few years. What will that partnership look like? How does ISE plan to introduce IT brands to the vast ISE world?

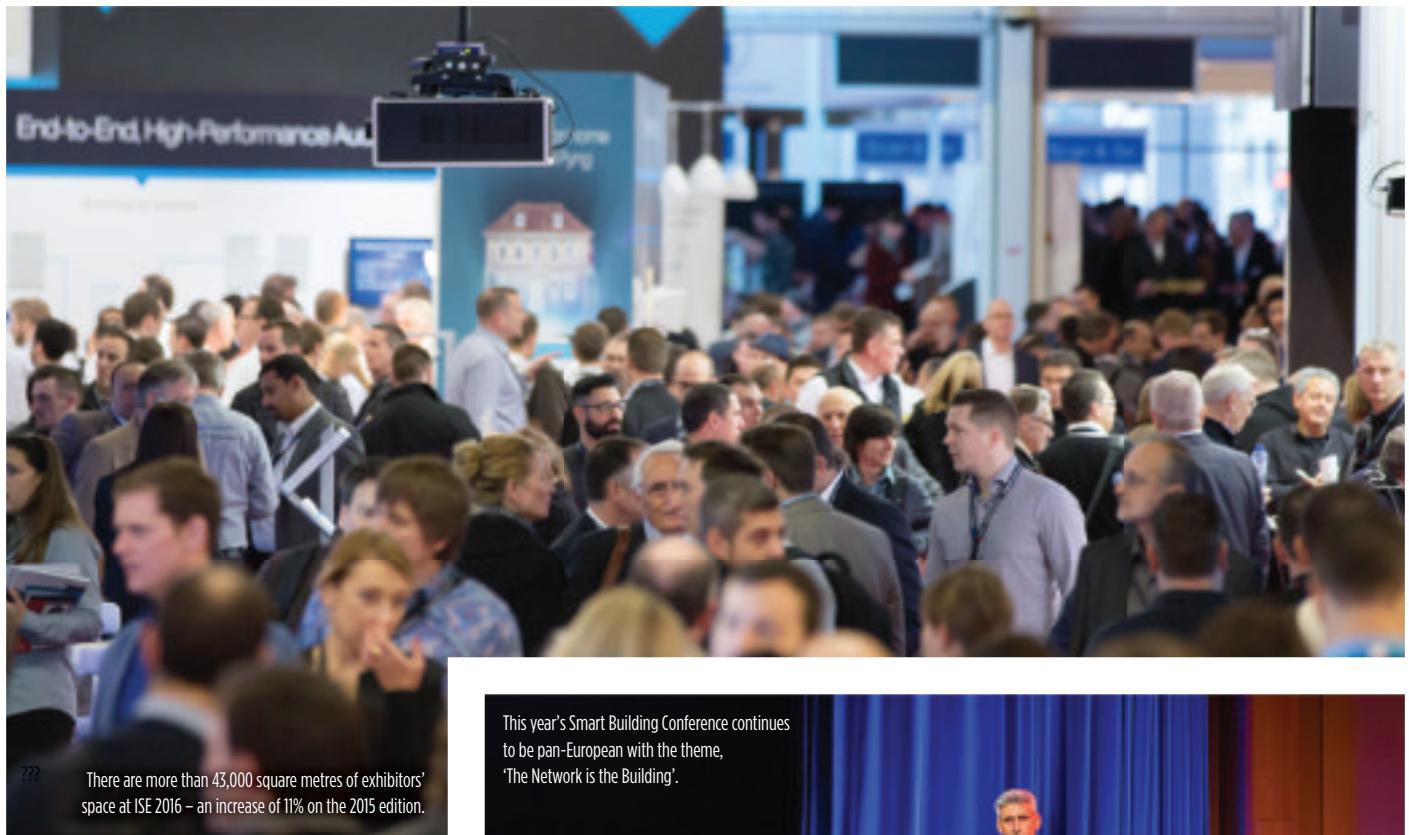
As you say, IT's prominence in AV has been growing significantly in recent years. It's a meeting of technologies that has resulted in a new generation of products and solutions. Historically, AV was something of an island of technology within the average business. It was all about projectors and screens and audio systems—all existing quite happily on their own, with no need for the typical IT department to even notice, let alone become involved.

AV technology is now much more network-centric. Two worlds that were once quite separate have joined forces to create intelligent products and intelligent solutions. Our focus, then, is on shining a light on this development and highlighting a narrative that is already there and making it accessible by driving awareness that ISE is an important show for IT professionals.

We understand that within the IT world the media forms opinions. As well as tailored campaigns aimed specifically at this market, we held a daylong workshop with key IT journalists. By strengthening the connection our aim is to build a value proposition for exhibitors and attendees.

**The Smart Home concept seemed to have reached a fever pitch in the last year. Have you seen a shift in how residential systems integrators are engaging the concept beyond talking with architects and construction companies? If so, how? What more can they do to push the concept while finding profitability?**

Acknowledging where we are and foreseeing key industry trends will help integrators to find profitability. By focusing on technologically driven trends, integrators have an opportunity to grow their own businesses, while at the same time moving



There are more than 43,000 square metres of exhibitors' space at ISE 2016 – an increase of 11% on the 2015 edition.

the smart home concept on.

There is a renewal in innovation and refinement, as sustainability takes a more prominent role in driving the market. With the growth of 'smart' home networking, we're seeing the worlds of smart home and unified communications overlapping.

I believe 2016 will see custom integrators designing and installing systems that provide comfort, safety, control and connection that further enrich the home experience. And we'll continue to see the evolution of IP connectivity as a key driver.

In terms of the viewing experience, that will be the impact of High Dynamic Range and Wide Colour Gamut. Immersive audio should gain traction as the availability of hardware and content increases. Voice command and recognition experiences will improve in quality and adoption rate, while the sharing economy should see integrators save money and even drive revenue that wasn't previously accessible.

**Have you seen a significant shift within our industry in implementing education and training programmes that focus on smart building—both for the integrator and the client? What more can be done?**

The industry understands that for true progression, technological innovation has to be matched by education and training that addresses the challenges that are unique to smart building projects. CEDIA is doing lots of exceptional work in this area and now offers over 100 online resources for self-paced training. CEDIA's latest training is more mobile friendly and has more interactive elements that cater to the learner, including scenario-based activities that test the learners' comprehension throughout the course.

Speaking generally, there's always room for improvement. As the industry's understanding about the benefits of

This year's Smart Building Conference continues to be pan-European with the theme, 'The Network is the Building'.



education and training continues to rise, so too will its scope and accessibility.

**ISE have a number of seminar theatres on the show floor with more than 1,000 exhibitors spread across the RAI. What are your expectations with the uptake in attendance? Are there any standout seminars you would encourage residential custom integrators to attend?**

With the show floor growing to around 43,000m<sup>2</sup> and with the addition of the fourth day, naturally we are optimistic about the attendance figure for ISE 2016. Our objective is to create an environment that is conducive to productive business relationships. We're confident that we will continue to do that in 2016.

In terms of seminars: I'd encourage everybody to check out the full schedule of CEDIA, InfoComm and Show Floor Theatre sessions on the ISE website. There are so many intriguing sessions and each person's needs are different.

It pays to do your research and plan your days at ISE 2016 beforehand, so that you can fit everything in. That would be my number-one recommendation.

**Looking forward to ISE 2017, which will again be adding space to the current layout, what do you anticipate will be the major technology draws for both commercial and residential players?**

Though it's early days for ISE 2017, it's already clear that home automation and smart buildings will have an even bigger presence at next year's show. For now, we're focused on making ISE 2016 the best experience that we can for its participants and then building on that for 2017.

[www.iseeurope.org](http://www.iseeurope.org)

Llanor Alleyne has reported on the custom integration market for more than 10 years and is the Editor of *HiddenWires*.

The future will be fruitful for systems integrators and installers as the connected home concept gains firmer ground. *By Jon Carter*

# Keys to Entering the Smart Home Economy



**T**he connected home is about to take off in a big way and offers a huge opportunity for integrators and installers, not just manufacturers, telcos, retailers and insurers. As more devices in our homes become connected to the Internet, they will need to be installed, configured, managed, maintained, updated and replaced.

Market projections vary, but according to most analysts, the market will be worth billions of euros. Strategy Analytics claims that the home market in the EU could be worth over €15.46 billion annually by 2019, with 50 million Western European homes having installed Internet of Things (IoT) technology.

Smart thermostats, along with connected motion sensors and smart cameras are two domains that are often described as the 'lowest hanging fruits' of this fast evolving market. Consumers appreciate the benefit of improved comfort, reduced energy costs, enhanced peace of mind, and the ability to stay connected with the people and place that is most important to them.

Analysts forecast that such connected devices will be

**"According to Frost & Sullivan remote technical support for IoT devices will grow to reach €2.4 billion by 2020, a 12.1 percent CAGR."**

followed by new, enhanced smart controls and sensors across a broad range of use cases, from heating and cooling to energy use, security, safety, comfort and convenience. Further,

all of these devices will connect with each other, enabling homeowners to automate various mundane tasks, and can in turn connect to service providers, such as utilities or insurers, to offer new connected services.

Gartner claims that it expects to see a wide range of domestic equipment becoming connected and 'smart'—in terms of gaining some level of sensing and intelligence combined with the ability to communicate—with the result that "... a typical family home, in a mature market, could contain several hundred smart objects by 2022." The range of devices that we expect to become connected is numerous, from motion sensors and lights, to music systems, kitchen appliances, vacuum cleaners, radiators, blinds, door and window locks, door bells, and much more.

All of this presents a major growth opportunity for integrators and installers due to the fact that the mass consumer market do not have the time or inclination to install such systems, or to configure and set the rules that will make the connected home a reality and simplify their lives. In fact, we believe that the consumer trend for 'do it for me' (DIFM),



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The range of devices that we expect to become connected is numerous, from kitchen appliances, motion sensors, and lights to music systems, vacuum cleaners, radiators, and much more.



**“One of the opportunities for installers is to work with insurers to strengthen their connected home propositions.”**

overtaking the latter 20th-century trend for DIY, will be realised most clearly in the connected home, as consumers increasingly look for expert help to enable them to bring about their own personalised and unique connected home. Not everyone will be confident in installing connected home devices, despite increasing simplicity and ‘plug-and-play’ functionality, whilst some countries will mandate professional installation of certain devices, such as smart thermostats. A recent report by PlumChoice, ‘Consumers struggle to use common connected things’, reaffirms this. Nearly two-thirds of respondents to the survey said that they were unable to complete the set-up with their current Internet-connected devices, and 54

percent needed to ask for help. In late 2014, research by Parks Associates found that 16 percent of US broadband households owned a smart home device and one-third have experienced at least one technical problem with their devices. Among these households, 56 percent were willing to pay up to €9.09 per month for a technical support service, and 43 percent were willing to pay up to €33.19 per month.

All of the evidence suggests that for both installers and integrators these developments will bring a major growth opportunity. We also believe it will create the foundation to build deeper relationships with consumers by recommending enhancements that they can make as new connected devices come to market, thereby building a regular revenue stream and enhancing profitability.

One key advantage of such connected technology will be the ability to remotely monitor and control devices. As such, an installer, with the customer’s permission, will be able to remotely monitor a device’s status in the event of an issue, reducing the cost of servicing customers, determining what is wrong, and in many cases, potentially fixing problems without actually making a site visit.

According to Frost & Sullivan remote technical support for IoT devices will grow to reach €2.4 billion by 2020, a 12.1 percent CAGR. A recent report by Accenture has found that the majority of consumers would welcome the opportunity to have one company providing technical support for most or all of their connected home devices—whether they described themselves as being a heavy, medium or low user of such devices.



## Onsite Support

One approach for installers and integrators is to offer a portfolio of on-site home technical services that are integrated with connected home technology, as an extension of their service offering.

Take the current home security market, where home owners face a complex choice: self-install self-monitored home security solutions, with multiple drawbacks in terms of the ability to respond in the event of an incident; mid-value consumer electronics-branded camera solutions, again with limited ability to take action; or costly professional monitoring solutions. This inherent complexity presents opportunities for connected home installers to enhance their offering, potentially leading to partnerships with security companies and insurers.

Indeed, insurers are suddenly recognising what the smart home could mean to them – Accenture has looked at the market and reports that nearly half of insurers believe that connected devices will be a driver of revenue growth in the next three years. This is a dramatic change from 2014, when a much larger number said they had no interest or plans to use connected insurance tools as part of their strategy.

One of the opportunities for installers is to work with insurers to strengthen their connected home propositions, which for many consumers will be perceived as too complex, and where access to a trusted technician will bring multiple benefits.

## Digital Plumbing and Open Platforms

There is a related opportunity for more entrepreneurial organisations to provide customised installation services, sometimes referred to as 'digital plumbing', enabling home owners to further personalise their homes using connected technology—an extension to what members of the Custom Electronic Design and Installation Association (CEDIA) do today in high-end homes. Such a service could be offered as part of a home makeover, or when a family moves to a new home.

Using developers to create bespoke features in a consumer-friendly way offers further differentiation and value, but a new type of thinking may be required. The connected home industry needs to abandon proprietary and closed approaches or 'gated communities' and open up collaboration. By 'open', we mean offering APIs (application program interfaces) and software developer toolkits (SDKs) to allow easy interoperability with other products within the ecosystem.

We launched our connected home platform last year and have partnered with more than 30 companies, including Belkin, Philips and Miele. We firmly believe that an open platform architecture is the only sustainable approach to this market. We also think that there will only be a handful of scalable, winning platforms in the coming years and that

the market will continue to experience significant consolidation.

## All of the Tools

Despite immense industry effort to enable intuitive set-up and use of connected devices, it is clear that given the level of technical complexity involved, there will always be some segments requiring a level of third-party support, whether it be remote or face-to-face. Technical support represents a means for installers and integrators to deepen and strengthen their relationship with customers by proactively resolving customers' issues and extending the range of services that they provide. Companies that currently operate in the high-end custom electronic design and installation industry can leverage the capabilities that the connected home will enable to provide enhanced features to a broader range of consumers, and players that currently operate in PC support or even HVAC installation and maintenance could potentially consider broadening their range of capabilities.

Connected home devices have great potential for installers and integrators with security and customised installation expected to be increasingly important routes to market. Providers can significantly improve the revenues and margins by offering in-life support services, leveraging remote capabilities meaning that on-site support is not always required.

*Jon Carter is Head of Business Development – Connected Home at Deutsche Telekom based in London, UK.*

**"The connected home industry needs to abandon proprietary and closed approaches or 'gated communities' and open up collaboration."**



One approach for installers and integrators is to offer a portfolio of on-site home technical services that are integrated with connected home technology.



**O**n November 19, 2010, U.S. Marine Corps Cpl. Mark Litynski's life was forever changed. After volunteering to be the point man on a foot patrol, he stepped on an improvised explosive device (IED), resulting in a bilateral above knee amputation and amputation of his left forearm. In early 2012, actor and humanitarian Gary Sinise learned about Litynski's tribulation, and decided that Mark and his wife, Heather, would be the recipients of a specially adapted customised smart home, through the Sinise Foundation's R.I.S.E. Program. With design modifications and expert technologies provided by top manufacturers like Core Brands, the home was successfully completed this summer, making the triple-amputee's daily life much simpler.

**“The ultimate goal of this project was to provide Mark with a home that he could move freely around and live more independently.”**

**Judith Otter, Executive Director of the Gary Sinise Foundation**

# Mobile by Design

Gary Sinise Foundation grants wounded veteran a customised smart home with key technologies provided by Core Brands.

"I saw a video that Huffington Post produced, 'Hidden Wounds,' that featured Mark and Heather sharing their story," Sinise explained. "It was my first strong awareness of what they were going through and I knew that I wanted to look into building them a smart home."

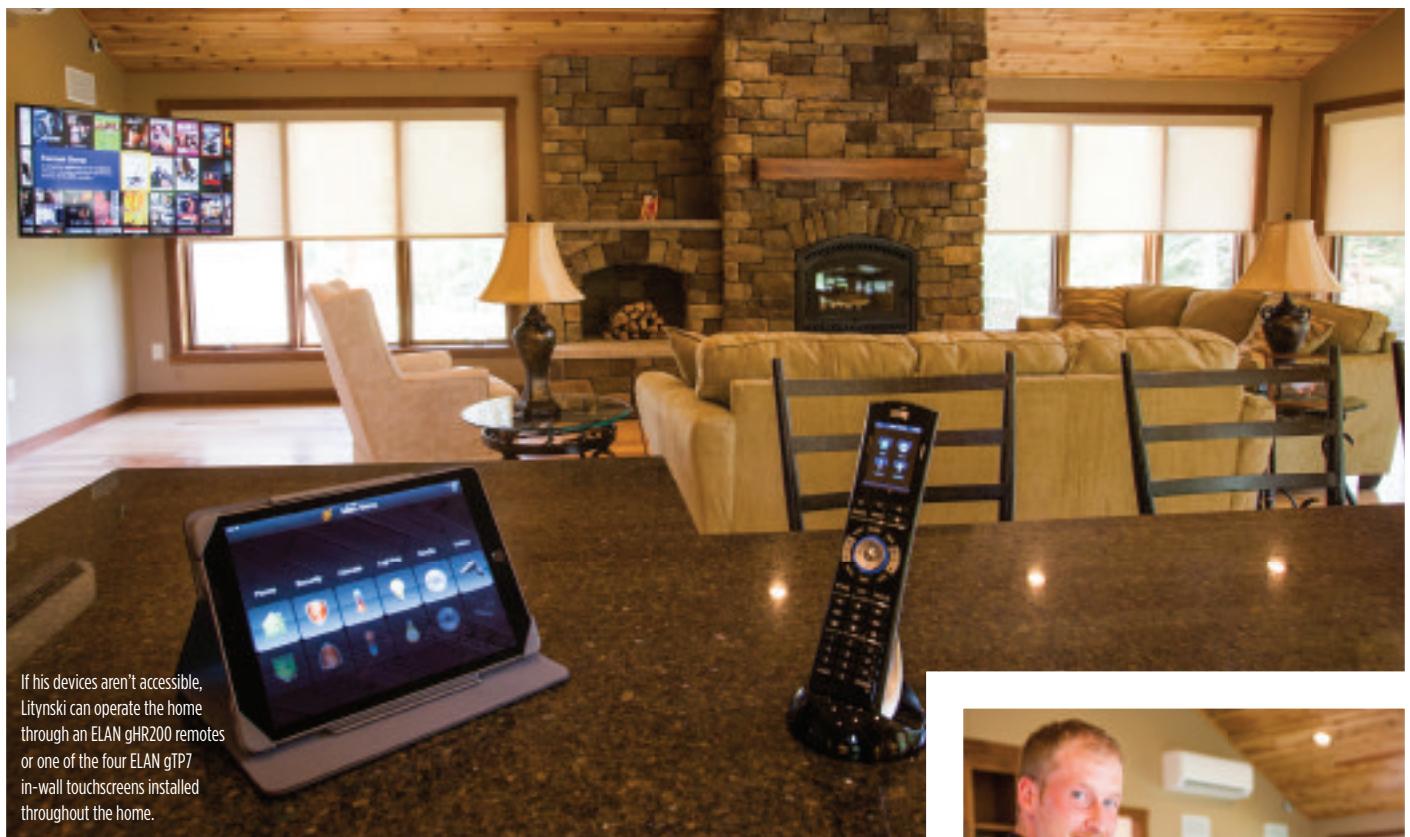
Constructed with Litynski's mobility at the epicenter of the design, the home is equipped with extra-wide hallways, pull-down cabinets, and an ELAN Entertainment and Control System. "The ultimate goal of this project was to provide Mark with a home that he could move freely around and live more independently," Executive Director of the Gary Sinise Foundation Judith Otter added.

Facilitating the communication between all of the home's electronics, the ELAN system allows Litynski to operate everything from a mobile app on his smartphone or iPad. If his devices aren't accessible, Litynski can operate the home through an ELAN gHR200 remotes or one of the four ELAN gTP7 in-wall touchscreens installed throughout

the home. All of the platforms were created with the end-user in mind, so Litynski can operate each system seamlessly, on devices that he and his family use daily.

The home theatre, motorised window shades, security cameras and complete audio system are just a few of the many connected systems in the home. The audio system creates some serious sound, equipped with seven Niles HDLCR in-wall LCR high-definition loudspeakers, 12 Niles DS8PR 8-inch ceiling-mount performance loudspeakers, a Niles CM8SI ceiling-mount 8-inch two-way speaker, and three Sunfire HRS-IW8 in-wall dual 8-inch subwoofers with a Sunfire amp. Additionally, all six of the home's LINEAR IP indoor/outdoor cameras can be monitored through ELAN, which will be extremely beneficial with the arrival of the Litynskis' first child.

The Smart Home was built in Duluth, MN, near Litynski's hometown, where winters can be extremely brutal. Senior Project Manager Scott Schaeperkoetter



**"It probably sounds so simple to someone else, but I can't describe the feeling of being able to do something yourself that you once couldn't."**

**Marine Corps Cpl.  
Mark Litynski**

explained, "We were nervous about the remoteness of the location and the delays that we could have possibly incurred due to extreme weather conditions. Thankfully, the contractor, Pete Franzen of Legacy Custom Homes, did an amazing job working through the hard winter months and delivered the home ahead of schedule."

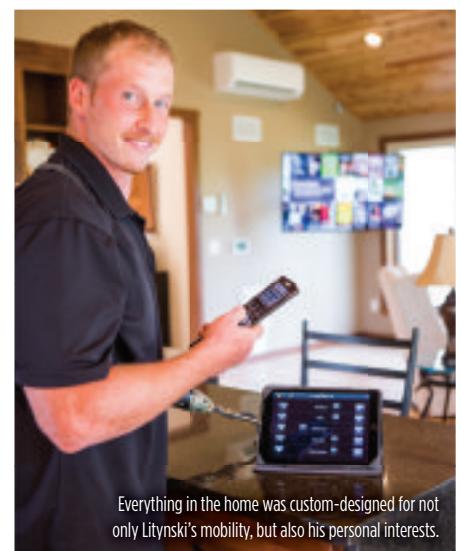
With the likelihood of extreme weather every winter, the home was designed with an effective power management system. To keep the Litynski home's power up and running all year long, the system integrator installed two Panamax M4315-Pro 8 outlet power conditioners and a BlueBOLT-enabled Panamax MB1500 uninterruptible power supply and power conditioner for the home theatre.

Everything in the home was custom-designed for not only Litynski's mobility, but also his personal interests. "We also designed the home around Mark's love for the outdoors," Otter explained. "There are many large windows in the great room and kitchen that allow Mark to sit anywhere in those rooms and look at the woods and wilderness around him." Outfitting the windows are 21 QMotion Qadvanced Automated Roller Shades featuring ultra-quiet, friction-free operation and no external wires. Two QMotion Qconnect systems allow the shades to be controlled by the ELAN home automation system.

"This home will allow me to be more independent," Litynski said. "It probably sounds so simple to someone else, but I can't describe the feeling of being able to do something yourself that you once couldn't. The simplest task can be enjoyable and you want to do it again and again, just because you can. I feel I have been blessed a thousand times over and beyond of what is enough."

Honoring veterans like Litynski, the Gary Sinise Foundation's R.I.S.E. Program was established to provide wounded heroes and their families with the necessary resources to overcome daily life challenges. The Gary Sinise Foundation is committed to helping our wounded heroes increase their mobility and reclaim their self-reliance.

"A big part of what we do at the Gary Sinise Foundation is raising awareness for the issues that our servicemen and women face and engaging the community to support their hometown hero," Otter concluded. "We were thrilled that this happened on this project and that many national partners such as Core Brands provided key technology to help us complete this project and provide Mark with as much independence as possible."



## Tech-Spec

- 1 g1 controller
- 1 gSC10 controller
- 2 HR-200 remote
- 1 S1616A Multi-zone amp
- 4 gTP7-W touchscreen
- 7 HDLCR in-wall LCR high-definition loudspeakers
- 12 DS8PR DS Directed Soundfield Ceiling-Mount 8" loudspeakers
- 1 CM8SI 8" 2-way Ceiling-Mount Stereo Input loudspeaker
- 3 HRSIW8CAB In-Wall Dual 8" subs
- 2 HRSIW8AMP 1U amps for HRSIW8
- 2 M4315-Pro 8-Outlet power conditioner
- 1 MB1500 8-Outlet power conditioner/UPS
- 2 BLUEBOLT-CV1 BlueBOLT IP Cards for F1500-UPS/MB1500
- 2 VT-EXT 8-Outlet power strips
- 2 Pluglock-PFP Wall Wart circuit breakers
- 6 LV-D2-2MIV-3.6F Indoor/Outdoor Dome IP cameras



# Entertaining in the Great Outdoors

**A**rmar Systems, owned and operated by Barry and Yavonne Dorsey since 1997, is a top-tier purveyor of home entertainment, control and automation systems, to a burgeoning high-end client base. Barry experienced one of the first demonstrations of Patio Theater and immediately recognised a very desirable and unique solution for his clients with Stealth's large-format, weatherised, outdoor entertainment system.

The homeowners desired a large-screen pool-side entertainment system to be able to watch their favourite shows, movies and sporting events outside during the day and realised that Patio Theater could not only provide an enviable theater experience whilst using the pool area, but also enhance its purchase value by addressing environmental issues that other solutions could not.

Stealth Patio Theater overcomes two major challenges of nature—weather and sunlight—which traditional systems cannot without re-purposing indoor technologies through additional protective coverings or other measures; some of which reduce the capabilities of the devices they are protecting.

Patio Theater's vibrant LED screens create a hi-definition outdoor display experience viewable anywhere within the owner's outdoor pool and spa area. The large 103-inch

Armor Systems of Florida installs the ideal Patio Theater by Stealth Acoustics.

display, also available in sizes up to 155-inches in size, is attached to advanced motorised lifts and mounted in a robust marine-grade custom enclosure. This approach makes for a system that is bright enough to be viewed in broad daylight when extended and then fully protected

and has a typical service life of up to 100,000 hours of normal usage.

Audio for the project was an inherent part of the standard Patio Theater system and built directly into the screen enclosure via Stealth's patented IP-68 invisible

**"Patio Theater's vibrant LED screens create a hi-definition outdoor display experience viewable anywhere within the owner's outdoor pool and spa area."**

from the environment when retracted—perfect for handling the notorious humidity, heat and critters that exist in central Florida. The direct LED display provides an eye-popping luminosity of over 1,800 nits

speaker and subwoofer speakers. The high-output speaker system is fully sealed and invisible to the eye because there are no speaker grilles; the enclosure speakers are standard Stealth LR3G full-range speakers for LCR and



For the fifth consecutive year the Model S speaker series by Steinway Lyngdorf have won the Editors' Choice award from The Absolute Sound.

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**“The high-output speaker system is fully sealed and invisible to the eye because there are no speaker grilles.”**

multiple B30 dual 8-inch subs, all of which utilise Stealth's solid UV-protected FidelityGlass, a flat-front radiating technology to create a well-defined sound system. Stealth's SA2400, high-current DSP-based 450W power amplifiers drive the speakers and provide factory pre-configured sound optimisation, which minimised the need for onsite sound system tuning. The system is connected to the home automation system and video sources making it a seamless outdoor extension of the owners' indoor entertainment system.

“The TV is truly unbelievable,” said the client. “We were surprised to see how well the LED screen brightness performed in broad daylight, not to mention the vivid natural colors and deep contrasts. I have to admit this is the most fantastic addition to outdoor lifestyle.”

## Tech-Spec

### LED Screen:

Fully retractable 103" LED screen

### Screen Aspect:

16:9 (approx.)

### Screen Pixel Pitch:

P3 (3mm btwn pixels O.C.)

### LED Module Size:

7.5" x 3.75" Front Service / Magnetic Attachment

Screen Viewing Angle (H/V): 1400 / 1200

### Screen Colors:

4.4 Trillion

### Gray Scale:

18 bit per pixel

### Screen Refresh Rate:

>3000 Hz

### Screen Operational Lifespan:

>100,000 Hours

### Maximum Display Brightness:

>1800cd/m<sup>2</sup>

### Cabinet Enclosure:

#### Screen / Enclosure Control Ports:

- (1) contact closure inputs for Screen Up/Dn/Stop control
- (1) contact closure for system power on/off

#### Built in Speaker Compliment for Enclosure:

- (3) fully sealed fiberglass front 8" 3-way high power devices for L/C/R
- (8) fully sealed fiberglass front 8" high-power bass drivers for Sub

#### System Audio Output Level:

103dB SPL Max @1m from screen/speakers

#### Operational Humidity / Moisture:

10%–90% Humidity / 0% moisture on rain sensor when screen is elevated

#### Sensor Package:

Raise Limit / Inhibit sensor, Rain sensor, Lower Inhibit (capacitance) sensor, Audible Retraction transducer

#### Voltage/Amperage Requirements:

240VAC 50/60Hz 40A

# Homespun London Luxury

KNX delivers Westminster winner with a smart home solution for Barratt Homes.

**S**mart home integrator and KNX UK member, Design Innovation, has completed an award-winning KNX installation for Britain's biggest house builder, Barratt Homes, at Great Minster House in Central London. Winner of the prestigious KNX UK Installation of the Year Award 2014, this project is a perfect demonstration of how state of the art audio, lighting, blind, heating, ventilation and comfort cooling control can be seamlessly integrated and automated using best-in-class KNX technology from different manufacturers to add value and offer future flexibility in prime property developments.

Located in the heart of Westminster, Great Minster House

**"The development is fully KNX cabled so that any apartment can have technology specifically tailored to occupants' needs from the day they move in."**

comprises 61 spacious studio, one, two and three-bedroom apartments and penthouses, with properties ranging in price from just under £1 million up to £3 million. High specification features, including magnificent high ceilings, parquet floors, terraces and a 24-hour concierge, abound on this impressive development. Barratt Homes called on Design Innovation to implement an equally high quality technology solution, initially for the first floor show apartment and concierge lobby area, which could be fully scalable for the rest of the development.

Design Innovation selected KNX technology from five different manufacturers—including ABB and Theben—to





All control functions within the show home are accessible via a smartphone or tablet when inside the apartment.

provide the building control infrastructure. The KNX system offers the capability for lighting, blind, heating, ventilation and comfort cooling control in every flat and is fully integrated with a Control4 system to provide seamless touchscreen access and control, and additional audio integration.

The development is fully KNX cabled so that any apartment can have technology specifically tailored to occupants' needs from the day they move in. This ensures maximum flexibility for the homebuyer, allowing them to personalise the level of technology and integration to suit their lifestyle and interior design preferences. They can easily choose to add different control elements and change functionality within their apartment, adjust finishes and designs of the push-

**"A KNX bus cable combines devices and systems, and new functions can be easily added in the future as the needs of occupants change."**

button switches and, once broadband connected, add remote control and operation of the various technologies within the apartment.

Once inside the building, residents are immersed in the refined luxury that typifies Great Minster House. Using a touchscreen, the concierge can automatically control light

levels and temperature over KNX, and also adjust volume and select tracks to breathe background music through invisible ceiling speakers into the opulent lobby space. Here, KNX-controlled high capacity Theben universal dimmers, providing crucial control over the LED lighting to ensure maximum efficiency is achieved, whilst also creating a stunning visual effect.

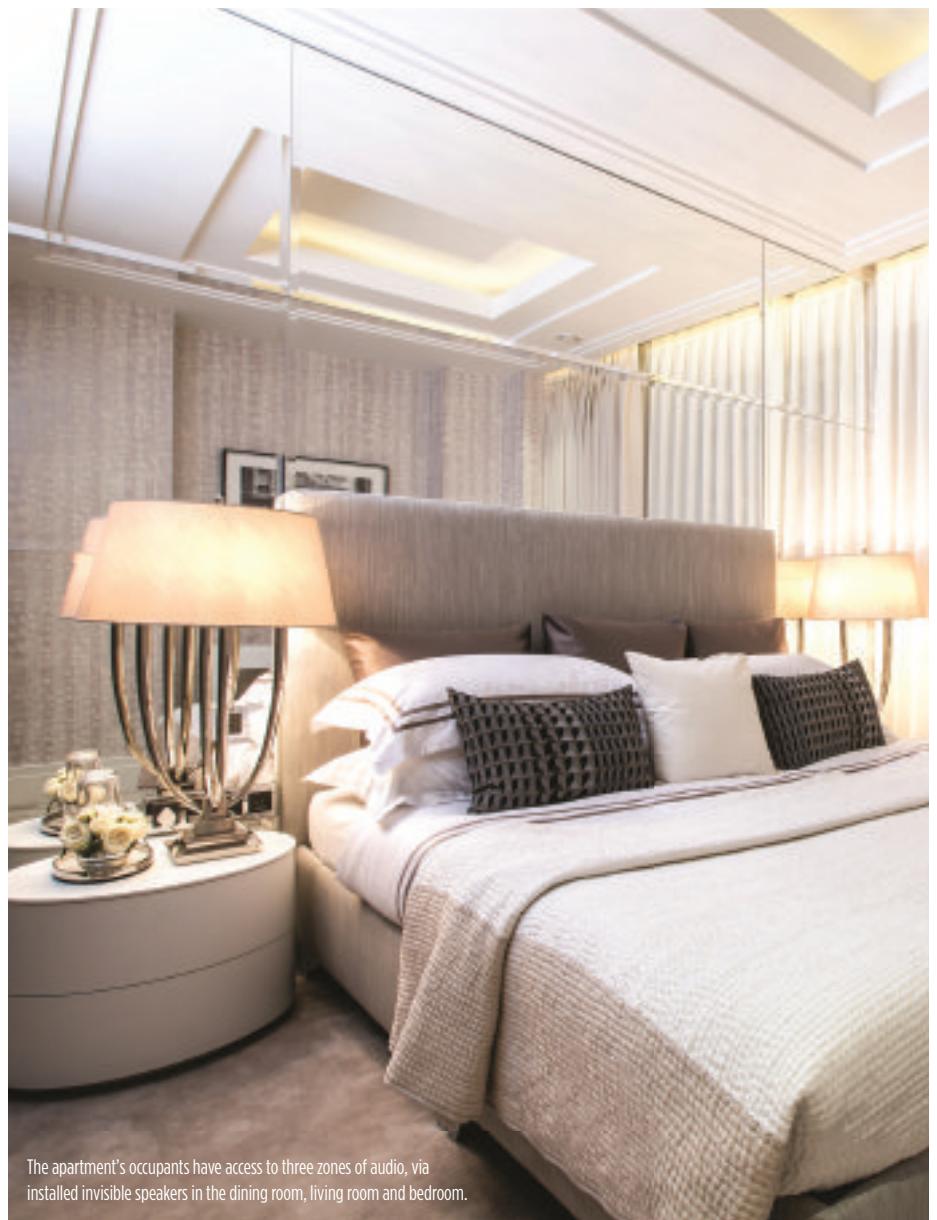
When entering the show apartment, owners can activate a 'welcome home' function, triggering an initial lighting scene in each main living area, alongside the automatic playback of music. This function is mirrored by the 'leaving' action, implemented by a push-button keypad sensor next to the front door. All the ABB and Theben controlled lighting in the apartment switches off progressively from back to front, allowing any guests within the property to leave safely. These lighting scenes can be personalised to suit the individual's lifestyle and taste. At night, cove lighting in the bathroom and toilet areas is automatically activated by discreetly located Theben Sphinx motion sensors for complete ease of use.

Homeowners also have the ability to set up their own DHW (domestic hot water), towel rail and heating and cooling schedule over an Android tablet that connects to the

## Tech-Spec

### Concierge / Lobby Area:

- Gira Power Supply and IP router
- Theben Universal dimmer
- Gira 1-10V dimming actuator
- Gira DALI gateway
- Intesis Gateway KNX/Mitsubishi



The apartment's occupants have access to three zones of audio, via installed invisible speakers in the dining room, living room and bedroom.

apartment's KNX-enabled server. Using the keypads, they can boost the short-term operation of these systems as well as adjust the mechanical ventilation in different rooms in the apartment. Design Innovation has ensured that the heating and cooling system will not operate in conflict, further optimising comfort and energy efficiency. All control functions within the show home are also accessible via a smartphone or tablet when inside the apartment.

With full integration to the AV system, Design Innovation has given the occupants in the show apartment access to three zones of audio, via installed invisible speakers in dining room, living room and bedroom. The system provides music streaming over airplay and Bluetooth and the facility to connect music via a line-in to the system.

"The KNX open standard allowed us to bring together the right equipment from a choice of different KNX manufacturers to provide the best solution for this project," comments Nick Gale, managing director at Design Innovation. "The show apartment uses multiple manufacturers all working seamlessly together, and offers the flexibility of easy AV integration and end-user customisation. Great Minster House is a great demonstration of the capabilities of KNX and its

**"The system provides music streaming over airplay and Bluetooth and the facility to connect music via a line-in to the system."**

huge potential as an effective and versatile solution within multi-dwelling unit developments."

KNX is a simple system for intelligent electrical installation networking. A KNX bus cable combines devices and systems, and new functions can be easily added in the future as the needs of occupants change and extra functionality is required.

KNX products are used to build intelligent integrated building control solutions for residential and commercial applications. As a result, owners, residents, or managers of these properties have control over the everyday working or living environment. This can cover all building services such as heating, ventilation, air conditioning, lighting, security and metering as well as the operation of blinds, electrical appliances, windows, facades, AV/sound systems and many other functions.

## Tech-Spec

### Show Apartment:

- Gira Power Supply and IP router
- Gira Universal dimming actuators
- Gira switch actuator
- Gira heating actuator
- Gira push-button sensor 3 with integral thermostat
- ABB 1-10V dimming actuator
- Theben universal dimming actuator with boost module
- Theben Sphinx motion sensors
- Intesis Gateway KNX/Mitsubishi
- Loxone mini-server



# Showcasing the Ultimate Home with HDBaseT

**N**ottingham, a city in the center of England, is best known for the tale of Robin Hood and the famous Sheriff. But its medieval past is, well, past. Nottingham today is a thriving, modern city.

Nottingham is now the home of a luxurious showroom for those interested in the best that residential AV has to offer, thanks to Guy Phoenix Developments. Guy Phoenix focuses on luxury residential construction in England with particular attention paid to design and quality, providing elegant and functional homes to his customers. The showroom in Nottingham is testament to the high standards and superior values Phoenix applies to all of his projects.

The Nottingham model home was built as a showroom for an exclusive development of 15 luxurious properties, so potential customers could get an idea of what their dream home would look like. Avicci Ltd, a leading AV integration company in the UK, took the lead in defining and installing all the necessary systems to transform the show home into a smart home.

The main challenge was to integrate the best technology has to offer into the four bedroom property in the most inconspicuous way, so as not to detract from the top-of-the-

A Nottingham model home underscores the best qualities of AV integration.

**“The main challenge was to integrate the best technology has to offer into the four bedroom property in the most inconspicuous way.”**

line design. In addition, all systems not only were expected to work together—including entertainment systems, security cameras, high-speed network, and more—but were also designed to be easily controlled by the end user.

After a thorough review of the requirements, Avicci opted to deploy an HDanywhere Modular 4x4 HDBaseT matrix, which allowed for the placement of all video devices into one centralised location.

HDBaseT was an obvious choice to address the project's requirements. HDBaseT allows for the transmission of ultra-high-definition audio and video, Ethernet, controls, USB and power over a single LAN cable, for up to 100 metres, eliminating extra cables and simplifying installation and deployment, as LAN cables are easily field-terminated.

The infrastructure within the property was first fixed by the developers' contracted electrical team from the centralised

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position to all points. It was then terminated and tested by Avicci to ensure exacting standards were met to enable the distribution, either simultaneously or independently, of high-definition content to the whole house.

High-speed Internet and wireless systems, security cameras, 5.1 home theatre and multiroom audio systems were also deployed throughout the home, and were integrated with the entertainment devices by Control4's HC-800 processor through smart phones, remote controls or tablets. Control4 brings simplicity to the day-to-day operation of the house, including operating the electric garage doors and blinds. Thanks to the HDAnywhere and Control4 platforms, all high-definition devices can be viewed in all of the rooms, simultaneously or independently, without affecting quality or performance as HDBaseT delivers content with virtually zero latency.

**"The model home commissioned by Guy Phoenix and installed by Avicci brings the ease and functionality enabled by HDAnywhere's HDBaseT equipment."**

The model home commissioned by Guy Phoenix and installed by Avicci brings the ease and functionality enabled by HDAnywhere's HDBaseT equipment. The overall installation brings the best technology has to offer without interfering with the look and feel of the home. HDBaseT eliminates the extra cables for a more elegant installation. HDBaseT is also future-ready as more entertainment devices can be installed, without the need to rewire the home, and without duplicating unnecessary devices.

For the Guy Phoenix showroom, HDBaseT brought ultimate ease of installation and ease of use. The ability to integrate different content sources to all the displays in the house allows for the ultimate versatility in the modern home.

### Tech-Spec

- HDAnywhere Modular 4x4 HDBaseT matrix
- Control4 HC-800
- Panasonic Blu-Ray player
- Apple TV
- Sonos Connect amplifiers
- Yamaha AVR
- Cisco Wi-Fi 2.4Ghz/5Ghz antennas

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# Small System with Big Reach

Steinway Lyngdorf steals the show in a custom-designed cinematic escape in England.

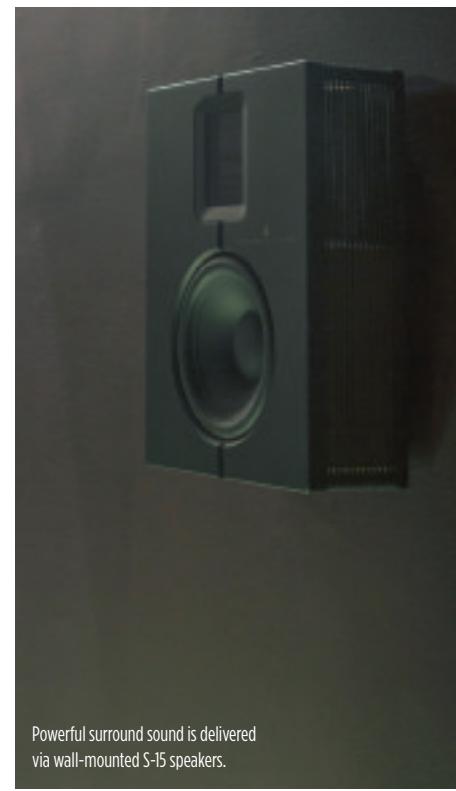
The Steinway & Sons Model S by Steinway Lyngdorf—five-time winner of the prestigious Editors' Choice Award from The Absolute Sound—was selected to create the most cinema-like impression possible in this UK home theatre. The entire project was a three-month undertaking involving consultation and expertise from interior designers, audio engineers, and system installers in order to create a setting that evokes absolute perfection in the home film-viewing experience.

Exceptional-quality sound was high on the homeowner's list of desires. Thus, the room was carefully designed around the installation of seven Steinway & Sons S-15 speakers and two Steinway & Sons Model LS boundary woofers; contractors even altered a doorway to best accommodate the boundary woofer in the left front corner. The Model LS woofers deliver powerful and accurate bass, while the S-15 speakers (utilising Ambience Enhancing Radiation) disperse the highest frequencies to produce a spacious and live effect in this intimate theatre.

The powerful Steinway Lyngdorf system is driven by electronics—all cleverly concealed within a large window

**"This custom home theatre installation keeps the focus on comfort, style, and sound that delivers an immersive cinema experience."**

seat—which include the Steinway & Sons Model P200, the most sophisticated and best-performing surround sound processor ever developed. The Model P200 offers full support of every



audio format on the market, including immersive surround sound formats such as Dolby Atmos, DTS:X, and AURO-3D. It also features advanced HDMI functionality and fully digital signal processing, making it the hallmark of flexibility and scalability for the home cinema experience.

The Model P200 is 100-percent digital without sound-deteriorating digital-to-analog conversions. Unlike analog, which inevitably adds its own flavour, the fully digital Model P200 ensures sound is replayed completely intact, delivering



Theatre-like LED step lights, beautiful leather cinema seats, and a curved video screen wall complete this impressive installation.



The Steinway Lyngdorf system is driven by electronics, which are cleverly concealed within a large window seat.

the purest sound possible. Fully digital processing in combination with fully digital amplifiers by Steinway Lyngdorf keeps the audio stream entirely in the digital domain, while maintaining full resolution of the original signal. This means nothing gets between you and your sound.

The initial re-design of the theatre's door was undertaken to accommodate ideal boundary woofer placement. But what about the remaining room dynamics and their effect on sound? Not a problem—Steinway Lyngdorf's innovative

technology stepped in to eliminate the influence of the room's size, shape, or furniture placement on the sound coming from the speakers. Like its award-winning predecessor the Model P1, the Model P200 processor is equipped with RoomPerfect, the world's most sophisticated software for adapting sound to the environment. Rather than adapting the room to the sound system with expensive acoustic treatments, Steinway Lyngdorf's RoomPerfect adapts the sound system to the room.

## Tech-Spec

- Steinway & Sons Model S System by Steinway Lyngdorf
- Steinway & Sons Model LS boundary woofers by Steinway Lyngdorf
- Sony VPL-VW1100ES projector
- Stewart acoustically transparent anamorphic screen
- Oppo BDP-95 Blu-ray
- Mid-Atlantic pullout and rotate racks
- Front Row cinema seats
- Control4 Automation System with lighting control

The company invested years of research to develop a three-dimensional measuring technique and unique target response calculation to analyse and optimise sound performance for a specific room. This technique ensures that the audio system produces pure sound throughout the room, regardless of furniture, room size, loudspeaker location, or listening position. RoomPerfect reaches beyond its physical footprint to "see" the listening environment and customise sound performance for each specific room. Thus, the Model P200 delivers a perfect surround-sound experience equally well to living rooms, media rooms, and home theatres. It ensured a cinema sound experience in this home theatre that continues to impress the homeowners and their guests.

And then there are the finishing touches: the elegantly cool room layout features theatre-like LED step lights, beautiful leather cinema seats, and a curved video screen wall. A sophisticated lighting installation is managed via Control4 Automation System. Installation was completed by Revolve CI.

The verdict? **Perfect**.

# Artnovion, Procella and Trinnov to join forces at this year's ISE.

Artnovion, Procella Audio and Trinnov Audio manufacture high performance audio solutions. They will be co-exhibiting and joining forces at the fair to deliver a high-level immersive home theatre experience.



## Artnovion, Portugal

Artnovion is a new technological approach with a ubiquitous design, mastered to bring a new set of acoustic treatment solutions.

Based in the Oporto region, Portugal, Artnovion was founded by Jorge Castro and born from a lifelong passion for acoustics. It is soon to be represented throughout the five continents, after only eight months on the market.

Composed by a talented team, they work hard to push the boundaries of acoustic engineering to create unique collections of trendsetting and high performance acoustic products.

Using technology at the core of a solid network of partners, blending the best facets of engineering, design and customer service, and offering a selection of products that combine high acoustic performance and unique visual effects, Artnovion is as dynamic as the market. Around 50 premium-designed products so far have been created with Artnovion patented technology for the Pro Audio, High End and Architecture and Engineering ranges.

Inspired by their clients and their specific needs, Artnovion has been setting up new service channels that optimise commercial, design and production flow so they can provide the best user

experience, from user-friendly project design tools, to optimised shipping and a dedicated platform for dealers and distributors.

Artnovion dreams about building a global community and about how together we can create the most groundbreaking and comprehensive set of acoustic treatment products on the market.

## Procella Audio, Sweden

Procella Audio manufactures loudspeakers for high-end commercial and private cinemas.

Based in Sweden and created in 2007 by Anders Uggelberg and Gerben Van Duyl, Procella was born of necessity as they were asked to design a brand new state-of-the-art theatre at the DTS Europe headquarters in London, where they were colleagues. For this theatre's specific needs, they decided to design a new speaker rather than compromising down to a lowest common denominator. From this successful first effort, Procella Audio was born and is now recognised as one of the world's finest home cinema loudspeaker manufacturers.

The unique performance of Procella Audio loudspeakers lies in its unique set of no-compromise components, specifically combined to achieve nothing but the best in cinema sound.

A Procella Audio loudspeaker is notably distinguished by its high-frequency professional grade compression driver combined with Procella-designed constant directivity waveguides, to ensure uncompressed dynamics and high output levels as well as controlled dispersion at all frequencies to achieve refined and dynamic sound across a wide area. Furthermore, Procella only works with sealed boxes for both loudspeakers and subwoofers for superior transient performance.



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Every Procella speaker delivers the same audio quality, the only difference is the output level. Indeed, Procella's Identical Voice crossover designs mean precisely tuned timbre matching of all channels in the system, regardless of the mix of models.

The company's loudspeaker lineup starts with the P5 speaker combined with P12 subwoofer for the smallest home theatres, all the way up to the P860 active full-range speaker and P18 subwoofer for the largest digital cinema screening room.

Procella's lineup also includes a range of power amplifiers with built-in DSP, the DA05 and DA06.

## Trinnov Audio, France

Trinnov Audio develops innovative solutions for a wide range of media, entertainment and research audio applications. Created in 2003 and based near Paris, the company is known for its state-of-the-art loudspeaker/room Optimizer, including the exclusive remapping technology and research work in the area of 3D Audio.

All Trinnov products are manufactured and assembled in France and prestigious customers around the globe include Technicolor, Fox, BBC, Globo, NHK, and Toho.

Primarily involved in pro audio in the beginning, Trinnov now also addresses the commercial cinema market and has become increasingly popular in the high-end consumer market over the past three years with disruptive products specifically developed for the high-end, 2-channel and custom installation markets.

In particular, the company's flagship Altitude32, unveiled for the first time at ISE 2014, durably transformed the AV Processor landscape thanks to its revolutionary hardware platform.

**“Artnovion,  
Procella Audio  
and Trinnov Audio  
will be at booth  
5-U72.”**

Unlike other processors, audio decoding is not performed by a chipset developed for the mass market by a third-party manufacturer but by Trinnov's own software, developed and implemented in-house to meet the company's own requirements.

Since October 2014, the Altitude32 remains the only solution available to decode more than 13 discrete channels, thereby unleashing the full potential of immersive sound with the highest possible spatial resolution.

With Trinnov's other exclusive processing technologies built-in, the company's expertise in 3D Sound and the processor's unmatched upgradability and scalability, the Altitude32 became the processor of choice for discerning installers and customers in more than 45 countries.

## Come and see us on booth 5-U72:

Artnovion, Procella Audio and Trinnov Audio will be at booth 5-U72 with both an active demonstration and static display. Come and meet their teams.

Artnovion has designed the acoustics for the home theatre demonstration room. Their design consists of a combination of 150 easily mounted absorbers, diffusers and bass traps, presented in three different ambient finishing materials in both wood and fabric.

The 11.4.11 sound system to be demonstrated will consist of Procella active full-range P815 for the screen channels and P5 for all surround and ceiling channels. Deep and impactful bass will be delivered by a P18 and three extra P12 subwoofers.

A 32-channel Altitude32 will be used to play Auro-3D, Dolby Atmos and DTS:X native materials across 26 speakers. The built-in active crossovers of the Altitude32 will be used to drive the screen channels and Trinnov's loudspeaker/room optimization technology will be enabled on all 29 output channels.

Amplification will be ensured by Procella Audio DA05 and DA06 as well as two Trinnov Amplitude8 that will be demonstrated for the first time at ISE 2016.

In addition, Artnovion has a few surprises, they will be launching their much-awaited Sahara panel, along with some amazing new additions to their Pro Audio and High End segments. Their new Architecture & Engineering range will include ceiling frame panels and a new range of construction line products. In a more technical approach, they will be displaying innovative fixing systems with easy mounting and guaranteed alignment. They will also present a new Fire Rate category for all products. Their app, Impulso, is also getting some great new functionality.

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# Product Spotlight

With more custom integration manufacturers and distributors exhibiting than ever before, ISE has become one of the largest go-to exhibitions for system integrators focused on the residential market. Here are a few showcase custom installation products to look out for on the show floor.

## ELAN's Small Form-Factor Touch Panel

ELAN's all-new 4.7-inch LCD gTP4 touch panel features a proximity sensor that wakes it from sleep mode at the wave of a hand. The gTP4's function-specific interface creates an experience that is much more satisfying than using a handheld smartphone to control the home; not only does it wake from sleep with the wave of the hand, but it then presents a virtual seven-button flyout keypad pre-programmed for favorite or most common commands. This offers quick access to lighting controls, automation and music presets, and a swipe of the flyout instantly presents the full



ELAN control experience. Contemporary and sleek, the gTP4 touch panel utilises a rich 4.7-inch LCD screen encased behind edge-to-edge touchscreen glass. With 540 x 960 resolution, the touch panel can display crystal-clear IP-enabled and TCP-enabled camera feeds, making it a convenient and aesthetically appealing addition to virtually any room in the home.

**Stand: 1-N53**

[www.corebrands.com](http://www.corebrands.com)

## Gefen's ToolBox 4K Ultra HD ELR Extender



Gefen's 4K Ultra HD ToolBox for HDMI (GTB-UHD-HBT2) extends HDMI up to 495 feet using a single Cat-5e cable. The Gefen ToolBox Extender utilises a new HDBaseT 2.0 chipset that provides a much stronger signal link that is compatible with all HDBaseT products. The ToolBox Extender provides

resolutions of up to 4K Ultra HD with 7.1 channels of HBR (High Bit Rate) lossless digital audio are supported up to 330 feet (100 meters), delivering 4K Ultra HD resolutions at 60Hz 4:2:0. This product provides RS-232 and 2-way IR extension between the Sender and the Receiver units, allowing the transfer of IR commands and RS-232 communications between two remote locations. With this introduction, Gefen makes a high-quality extender that provides a much stronger signal link that is compatible with all HDBaseT products.

**Stand: 1-M45**

[www.corebrands.com](http://www.corebrands.com)

## Basalte's Music Server and Standalone Multiroom Amplifier

Asano is the high-end multiroom audio system by Basalte, introducing uncompressed hi-fi music in luxury projects worldwide. Now, Basalte adds the Asano S4 music server and standalone M4 amplifier to their range of native KNX amplifiers and components.

The S4 hosts four personalised streams with extensive user profile options to play your music everywhere using the mobile app. Combined with networked amplifiers, Asano S4 is perfectly tuned to play hi-fi music in a virtually unlimited number of rooms! The native integration in KNX opens a world of possibilities to control music with KNX control interfaces.



**Stand: 5-R83**

[www.basalte.be](http://www.basalte.be)

## RTI's T3x Remote Control

RTI's elegant flagship T3x remote control combines a completely customisable 3.5-inch color LCD edge-to-edge touchscreen interface with programmable "soft touch" hard buttons for quick access to common controls. The T3x touchscreen allows screen swiping and haptic-feedback for tactile confirmation of button presses while integrated grip sensors and an accelerometer providing instant-on activation. Other innovations include a built-in camera and microphone for intercom functionality directly from the remote. The controller's dual-RF platform supports both 433-MHz RF for one-way control and 2.4-GHz ZigBee for bi-directional communication with RTI processors. Built-in Wi-Fi supplies even more flexibility and power, allowing for robust two-way feedback, viewing IP security cameras and remote programming updates.



**Stand: 1-N75**

[www.rtictorp.com](http://www.rtictorp.com)

## Lutron's New Lighting Solutions



Visitors to Lutron's booth will experience the company's wide range of lighting control products for residential, commercial and hospitality applications, including its Sivoia QS Triathlon WIDR roller shades and the Lutron Connect app and Lutron Connect Bridge cloud-based hardware—both being introduced to the residential European market. The Sivoia roller shades are large, battery-powered, wirelessly controlled shades available from 0.5m wide x 0.3m tall, up to 3.65m wide x 3.65m tall and offer smooth precise and convenient daylight control for large windows as well as control from Lutron's iOS/Android app. Lutron Connect app & Lutron Connect Bridge cloud-based hardware are compatible with the HomeWorks QS and Grafik RA 2 systems, which provide convenient home control from any iOS or Android smartphone or tablet and offer remote access, geofencing, widget support and more.

**Stand: 1-P80**

[www.lutron.com](http://www.lutron.com)

## Steinway Lyngdorf's Model P200

Designed and manufactured in Denmark, the Steinway Lyngdorf Model P200 surround sound processor is equipped with advanced technologies, including RoomPerfect and fully digital signal processing. Capable of handling up to 256 output channels, the Model P200 offers full support of 3D surround formats Dolby Atmos, DTS:X, and AURO-3D. You can switch between speakers placed at the positions recommended for any specific format, or let the Model P200 intelligently optimise the



audio for each format. The Model P200 also supports 4K and 3D video and HDCP 2.2.

**Stand:** 10-P115

[www.steinwaylyngdorf.com](http://www.steinwaylyngdorf.com)

## WyreStorm Offers New Vision of 4K and HD

WyreStorm is showcasing its latest 4K/HD and control product offerings HDBaseT, HDMI and HD Over IP—covering their three-tier branding for residential custom install, commercial and online retail products. Highlights include a variety of extender solutions and the full range of new H2 range of HDMI and HDBaseT matrix switchers, with 4x4 and 6x6 Pure HDMI models offering support of HDMI 2.0 video standards for local distribution of 4K@60Hz with chroma subsampling of 4:2:0 or 30Hz at 4:4:4.

HDBaseT models will come in the form of 6x6 and 8x8 boasting Class A 5Play HDBaseT transmission for 4K@60Hz 4:2:0 video, HD audio, two-way IR/RS-232 control, Ethernet and PoH power up to 70m or 1080p up to 100m, and an



4x4+receiver installer kit supporting distances up to 35m (4K) or 70m (1080p).

**Stand:** 5-S110

[www.wyrestorm.com](http://www.wyrestorm.com)

## Niles Audio's Multiroom Audio System

Niles Audio is demonstrating its new MRC-6430 Auriel multiroom audio system, which integrates home theatre with the multi-room audio experience and a Sonos interface that enables streaming sources—all through a single control. The

Auriel chassis delivers audio to six unique zones and handles up to six distinct input sources. For larger systems, a second Auriel chassis can be added, delivering 12 zones of audio. The source control includes two-way metadata, IP and IR control of a variety of popular devices. To make it easier on installers, Auriel includes an extensive pre-defined IR database. The Auriel app can be downloaded for free from the Apple App Store or Google Play for users who want mobile phone or tablet convenience.

**Stand:** 1-N53

[www.corebrands.com](http://www.corebrands.com)

## Key Digital's Compass Control

The first fully integrated control system built from the ground up to use Apple's iOS devices (iPad, iPad mini, iPhone, and iPod touch) as its backbone, Key Digital's Compass Control integrates with iOS architecture at a deeper device level to deliver fast, reliable control of proprietary systems, from an iPad.

Using the iPad as its controller of choice, Compass Control combines iOS tech with a proprietary iOS App and Key Digital's Compass Navigator programming software to easily

configure and integrate a vast range of audio, video, HVAC, lighting, security devices from Compass Alliance Partners into a plug-and-play system under the gesture control of the Compass Control GUI. Key system-building components are Key Digital's Master Controller MC-1000, UHD Matrix Switchers, and a range of IR/RS-232/ TCP/IP modules for versatile set-up.

**Stand:** 5-R119

[www.keydigital.com](http://www.keydigital.com)

## CYP's HDBaseT 2.0 Extenders



Launching at ISE, CYP Europe's latest range of HDBaseT 2.0 Extenders incorporates the very latest technology for the best possible transmission of video signals up to a distance of 100 metres over a single Cat-6a/7 cable. Fully compatible for the transmission of video resolutions up to 4K UHD (HDCP2.2 compliant), along with HD audio, 2-Way IR, RS-232, PoH (Power over HDBaseT) and LAN up to 100m, the flagship pairing of the PUV-2010TX & PUV-2010RX Slimline Transmitter and Receiver also allows for the transmission of USB data over the more cost-effective PUV-2000TX & PUV-2000RX pairing, enabling a USB connection to two USB ports.

In addition to the full 5Play™ convergence feature set, both pairings also feature OAR (Optical Audio Return) and ARC (Audio Return Channel) functions, which enable audio from a compatible display to be routed back from the receiver unit to the transmitter. Contained within an ultra-slim (16mm) casing for easy installation, both kits will be shown for the first time at the show.

**Stand:** 4-U65

[www.cypeurope.com](http://www.cypeurope.com)

## ICE Cable Systems' PRIMAL Bulk Wire Series



ICE Cable Systems uses ISE for international launch of its PRIMAL bulk wire series, which consists of the most price-sensitive SKUs: Cat-5, Cat-6, and 16-gauge and 14-gauge speaker cables. All are offered in a pull-box that incorporates reinforced handles and a water-resistant laminate similar to those found in the company's Big Mouth Payout Box (BMP). To keep wire-pulls free of knots, kinks and tangles, the PRIMAL box (like BMP) utilises REELEX coil and payout technology. The category cables are available in 1,000-feet runs and in multiple color options. The speaker cable is available in runs of 500 and 1,000 feet (depending on gauge) in white.

**Stand:** 2-E40

[www.icecable.com](http://www.icecable.com)

## 1 Our members

The Alliance counts today with more than

**160**  
members

Our members are the top companies in the AV field, and are located in the United States, Latin America, Europe, and Asia Pacific.

[http://hdbaset.org/members\\_list](http://hdbaset.org/members_list)



## 2 Users Benefitting from HDBaseT

HDBaseT has conquered the world, and there are HDBaseT installations in the US, South Africa, Italy, Norway, Brazil, China and more!

Tell us your HDBaseT story by emailing us at :  
[installer@hdbaset.org](mailto:installer@hdbaset.org)

Learn more about these real-life installation stories:  
[http://hdbaset.org/we\\_live\\_in\\_an\\_hdbasetworld/](http://hdbaset.org/we_live_in_an_hdbasetworld/)



1

3

5

2

# Welcome to HDBaseT World

## 3 Our HDBaseT Products

There is today a full ecosystem of HDBaseT products, from extenders, switchers, matrixes, displays, projectors, AV receivers, to address the diverse needs of our market.

New products are constantly being introduced.

<http://products.hdbaset.org/>



## 5 ISE 2016

Come visit us & enjoy the HDBaseT world. Network with your fellow installers, meet our members, learn about new products and solutions,

and have a drink or two on us!

After all, we live in an HDBaseT world!

## 4 Our HDBaseT Installers

More than 3,000 integrators, and AV professionals have joined the Installer Zone, the online portal with resources and information about HDBaseT.

More than 1,000 have finished the HDBaseT Installer Expert Program, either online or in-person.

<http://hdbaset.org/installers/>



## Join the HDBaseT Cocktail & Tweetup Party

with the Fabulous Shaker Boys | on February 10th | 4:00PM - 6:00PM

- Booth 5-U92 -

## RTI's KX3 In-Wall Touchpanel

RTI's KX3 in-wall touchpanel features a high-resolution 3.5-inch color LCD display, five customisable hard buttons, and a completely customisable interface for intuitive control of electronic systems. A unique hybrid device, the KX3 combines the capabilities of a touchscreen and an advanced control processor for direct two-way control of electronics via IP, RS232 and relays, all within a single cost-effective unit. The touchpanel is also equipped with an astronomical clock for time-based events, and a camera and microphone for intercom functionality. A built-in 2.4 GHz ZigBee antenna enables

connectivity with RTI wireless remotes, while Ethernet connectivity allows for viewing video from network security cameras, and remote programming updates.

**Stand:** 1-N75

[www.rticorp.com](http://www.rticorp.com)



## Waterfall's New Architectural Speaker

Waterfall unveils its new in-wall architectural high-end performance speaker, which the company has pitched as "one backbox, three solutions". The speaker utilises Atohm drivers in a specifically designed backbox fabricated with high-density ABS material and two layers of damping and insulating material. In its first "solution" the speaker features a sealed enclosure in-wall with a magnetic perforated steel and paintable grill. The second



**Stand:** 5-S100

[www.waterfallaudio.com](http://www.waterfallaudio.com)

solution is the company's classical sealed enclosure in-wall with a white glass adapter and regular hurricane white grill while the third option is the classical enclosure with a black glass adapter and regular hurricane black grill.

## Beale Street Audio's 'Pancake' Loudspeaker

Beale Street Audio will have their line of ultra-thin, space-saving "Pancake" loudspeakers on display. Perfect for the international market where in-wall installation of audio



equipment is often impeded by shallow wall space or ceiling depth, the Pancake loudspeakers measure less than 3-inches deep and take full advantage of Beale Street Audio's performance enhancing Sonic Vortex technology.

The most recent addition to the line, Beale Street Audio will showcase their first LCR loudspeaker as well as previewing new audio accessories that enhance the functionality and installation options of the ultra-slim Pancake series.

**Stand:** 1-M16, 1-N18

[www.bealestreetaudio.com](http://www.bealestreetaudio.com)

## iPort's Surface Mount



iPort's Surface Mount is a mounting system for iPad, holding it flush with the wall surface while keeping it charged and always within reach. Available in two sizes (Air and Mini), the Surface Mount is an elegant snap-in frame and bracket, precision-machined from aluminium in three finishes: black, white or silver.

The iPad simply snaps into the Surface Mount bezel, leaving the power button, speaker and microphone available for

operation. The system is designed to be the easiest iPad mount to install: use any wall box, whether EU, UK or US, single gang or double gang. It can receive power from a PoE Switch as standard (via a tiny custom PoE splitter which fits inside the box), 24V DC power supply or power injector.

**Stand:** 1-N70

[www.iportproducts.com](http://www.iportproducts.com)

## Basalte's First Eve Mount for iPad Pro



Basalte has added the first compatible Eve for iPad Pro to their range of design aluminium wall mounts for iPad. The iPad Pro's larger screen enables more creativity and productivity and offers endless possibilities to control the smart home. The matching Eve mount now leads to a wider range of opportunities for both integrators and homeowners. With Eve Pro, integrators have more space for integrated ground plans for lights, shades and music. The device remains continuously charged by using the optional Puck that converts 24V DV to 5V USB and fits perfectly in a standard in-wall box.

**Stand:** 5-R83

[www.basalte.be](http://www.basalte.be)

## Stealth Acoustics' Patio Theater



Stealth Acoustics launches Stealth Patio Theater (SPT) to the European custom installation market at this year's ISE. SPT is a complete weatherised and fully protected outdoor cinematic system, integrating a large hi-resolution LED screen with Stealth Acoustics' award-winning outdoor speaker and amplifier technology and quiet-running lift automation to present a high quality, discreet, outdoor viewing solution that is revealed only when required for use.

Designed for installed outdoor use, the SPT is available in three screen sizes: 103 inches, 130 inches and 150 inches. In true Stealth style, when required, the screens rise silently from the custom designed enclosure, which is sealed to prevent external elements from entering the unit. SPT also features Stealth's IP-68 rated loudspeakers and sub-woofers, coupled with Stealth amplification and Digital Signal Processing to help create an immersive, cinematic 'al fresco' experience.

**Stand:** 5-R110

[www.stealthacoustics.com](http://www.stealthacoustics.com)

# MORE SMART BUILDING TECHNOLOGY



ISE 2016 – Four days, for you, for your business, for the better!

Discover the latest developments in smart building and smart home technology at the world's largest gathering of AV manufacturers and service suppliers. ISE 2016 also features a one-day Smart Building Conference taking place on the day before the event opens and Show Floor Theatre presentations throughout the four-day show.

Find out more and register: [www.iseurope.org](http://www.iseurope.org)

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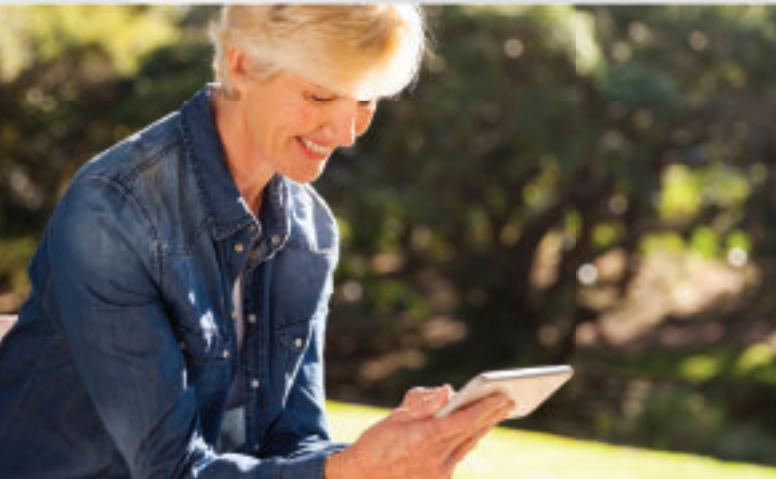
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