

Network

AUTUMN 2022

QUARTERLY NEWS UPDATE

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Habitech's end-to-end project support will help you to deliver future network performance today...



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DRIVING PERFECTION

Wisdom Audio's design and performance advantages revealed

FACE TO FACE

With Technical Audio Solutions Manager John Perry and Sales Manager Charles Plumb

ON THE CASE

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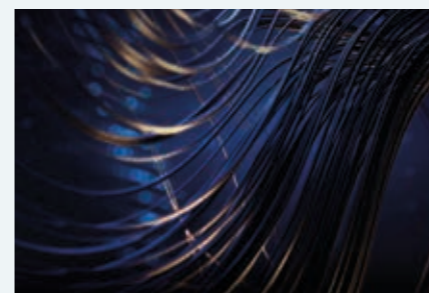
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HABITECH

CONNECTING EVERYTHING!

By uniting the best technologies and knowhow, Habitech will help you to deliver future network performance today says Connectivity Product Manager Mike Clayton.



Listen to Apple and Google and you'd believe the future is wire-free, but let's get real: there's more chance of me being knighted for services to cable. In fact, it's impossible to imagine a world in which WiFi would ever be as fast and as bullet-proof as wired connections, and even though Sky has turned all its set-top boxes into smart access points with Sky Q, it's not the precursor of a completely wireless future. Sure, smart home design will always need WiFi to reach its full potential, but it will continue to evolve and prosper with the support of a hardwired backbone. Truth is, only hybrid networks are able to deliver convenience, mobility and bandwidth in the smart homes you're creating, and since customer happiness is the golden ticket for every business, your ability to engineer this blissful combination is made so much easier with Habitech at your side...

THE ONE-STOP PROJECT PROVIDER

This is because we have the bandwidth in products and expertise to support all your network designs. Whether you're integrating HDBT, HDMI, IP, or WiFi; CAT, fibre, speaker or control cable, we'll recommend the ideal mix of high performance hardware and the easiest,

most reliable cable infrastructure for the project. In other words, the complete CI pallette on a pallet; joined-up, end-to-end and universal, in the best value-added tradition of Habitech.

FURTHER AND FASTER

It used to be that most integrators, including me, treated cable as a homogenous commodity - almost as an afterthought. When I started designing and installing conferencing systems for IBM in the 1990s, 15pin VGA and composite video cable could be run over reasonable lengths without issues.

Today, far higher bandwidth requirements need more thought about cable type, its path to the 'endpoint', cable quality and reliability. We can help you with all of that. Of course, you could go to a cable-only supplier, as many still do, for a bewildering choice of every cable and connector under the sun, but its responsibility to your success starts and ends right there. The big difference is that Habitech doesn't see cable as an end in itself. Instead, we supply cable as a complementary and vital component of a complete Habitech system solution, devised in partnership to realise your design vision. Naturally you're free to look elsewhere for a better deal on price, but when you're working at the premium end of the market, where high performance and durability are the fundamental goals, it seems paradoxical to join a race to the bottom just to save a few quid - that would be as self-defeating as a motorist driving for fifty miles to save a penny on a litre. And even though we always monitor market pricing to ensure the most competitive outcome, we can also add big value to your project by saving you the precious commodity of time.

TAKE IT TO THE BANK

For a start, there are practical efficiencies to consider. Backed by our technical and design support, Habitech's one-stop 'project superstore' offering means you can order everything in one place, saving days of planning, and rely on extra conveniences like



our spooling service, recently enhanced to include armoured cable, custom cut for the gate house or garden studio.

But it's our cutting edge tech that's the real clincher for saving time on site. Now that gigabit Fibre-to-the-Premises (FTTP) broadband is a reality for over seven million UK properties, it's inevitable that a joined-up fibre backbone will be doing the heavy data lifting in future homes sooner than you think. Quite apart from its lightning speed over any domestic distance, it's untroubled by EMI, as tough as old boots and easier to pull, and if you're using Cleerline's SSF fibre from Habitech, it's extremely pliable and much easier to terminate - in as little as sixty seconds. And if you think this is a hypothetical time saving, because nothing much uses fibre, we can show you how to benefit from its power today, while you wait for the hardware to catch up.

NOT FUTURE-PROOF BUT FUTURE-PRESENT

A little smaller than your average portable hard drive, media converters are plug-and-play devices, which integrate copper infrastructure with a fibre backbone in both directions. Run fibre to the room and Catx IG or 10G ethernet to the in-room devices.



Cleerline media converters allow you to use the speed of fibre for CAT connected devices today

Easy. Our new Cleerline range converts fibre to Copper/Catx, fibre to two IG Catx with PoE, and multimode to single mode fibre, with the addition of suitable SFPs.

There's also a chassis that holds and provides power for up to twelve converters in 1U of rack space. This means that with Habitech's enabling tech you can design a conventional device ecosystem using a fibre backbone today, and leave it there for the next twenty years, saving your customers the agony of the inevitable upgrades to come. Bank the time saved and charge them more. They'll may even love you for it.

GOING THE DISTANCE

Bottom line is that if you're designing hybrid networks for today's demanding customers, Habitech has the products and the specialists on hand to help you achieve reliable results

in every application. Our complete network design toolkit comprises not just the high performance switches, controllers, APs and firewalls, but everything in between: CPR compliant bulk fibre, network, speaker, control, and coaxial cable; the best available HDMI cables and AOCs supporting 4K and 8K at lengths from 0.5m to 100m; patch panels, cords and keystone jacks, and premium connectors for network, fibre and AV, along with the labour-saving tools that make the job much easier. For instance, Go Simply Connect's range of Simply45 pass-through RJ45 modular plugs allow the conductors to pass completely through the front of the plug, so you can verify the wire alignment before crimping. What's more, you can crimp plug and boot in a single step, saving you hours of tedium on site. And if you're using Planet Waves AV connectors, you can terminate tool-less in three simple steps.

In these little ways, and in the big ones too, we'll go the extra mile to help you deliver the most reliable data speed and integrity from the best hybrid network designs for happy customers today and tomorrow, because whatever happens in the distant tech future, the most accomplished smart homes will always need wire in the walls!



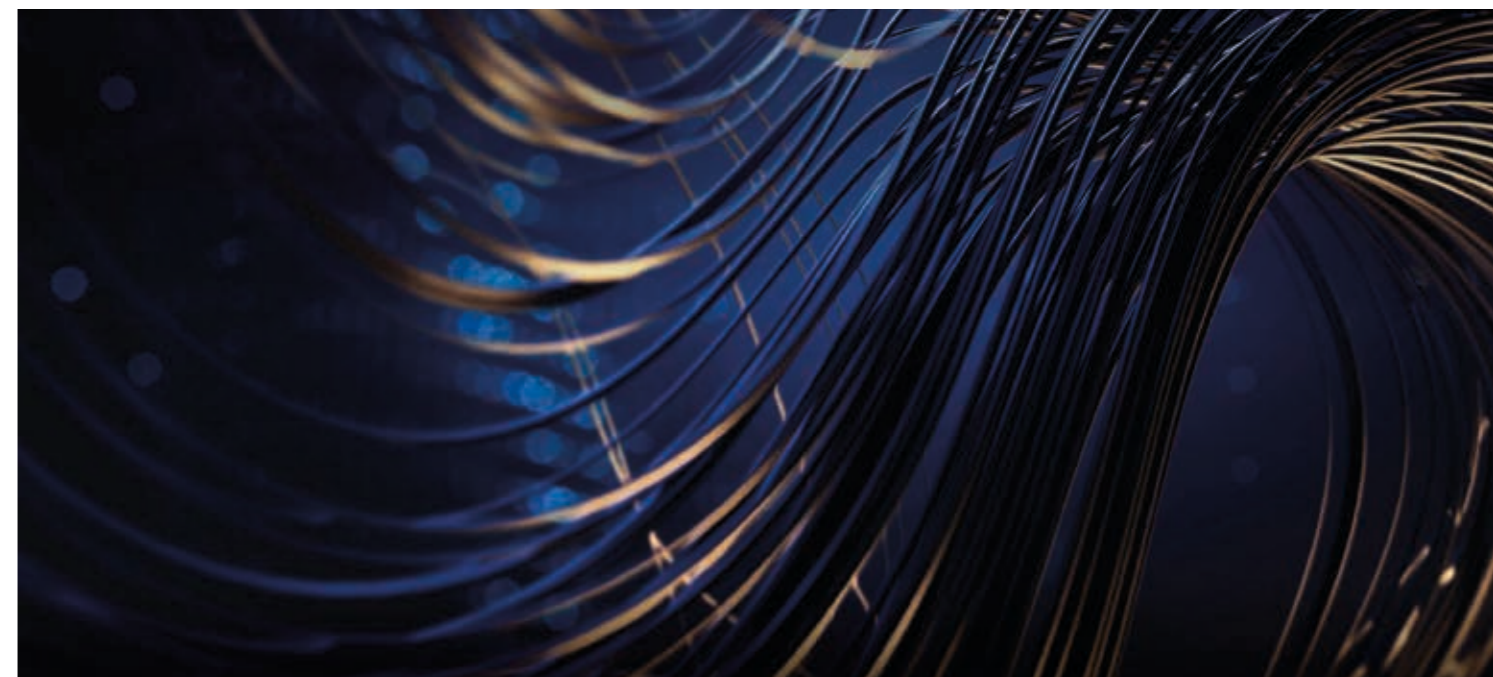
Not only high performance switches, controllers, APs and firewalls, but everything in between



Make Habitech your first aid to beautiful and durable rack design



Save time on site with Simply45 pass-through RJ45s



Habitech will recommend the ideal mix of hardware and cable infrastructure for every project

⚡
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FACE TO FACE

**John Perry,
Technical Audio Solutions Manager**

“Habitech has lived up to its name by supercharging the choice of audio products available, encompassing residential and commercial audio, VC/UC and home office applications, backed by what I believe is an unrivalled design and support service.”



Q: You're now heading up support for Habitech's expanding audio estate, so how is the challenge shaping up?

My new support role spans probably the largest portfolio of products in the Habitech line-up, including no fewer than six loudspeaker brands and all the processing and power hardware needed to supply and drive them. Any responsible disti will offer a range of audio options, but in recent years Habitech has lived up to its name by supercharging the choice of audio products available, encompassing residential and commercial audio, VC/UC and home office applications, backed by what I believe is

an unrivalled design and support service. I'm part of a Habitech team that can apply decades of experience in ProAV leadership roles to helping our customers find the most reliable high performance systems for every install challenge involving the right speakers, amplification and data delivery for the job. And because most spaces are now demanding content streamed from the Internet over IP networks, our experience in AVoIP delivery, including Dante, will help CI integrators deploy the technology in homes for optimum results or make the step into ProAV, where AVoIP is mainstream.

Q: So what can your experience in ProAV bring to CI?

My 21 years at Shure and 5 years at Yamaha Commercial have taught me that whilst every custom job has its own singular challenges, success is achieved by systematic preparation and the right product choices. I'm probably a little hard headed about the approach work because in my experience you simply can't deliver enduring high quality audio on the back of the proverbial fag packet. Clients are often vague when describing what they want, which gives you lots of creative leeway, but to avoid disappointment in a six figure investment you have to drill down for specifics. Plenty can be lost in translation. For instance, the bar owner wanting 'background music', is actually in need of 'midground music' to overcome higher ambient sound levels. So, when you embark on the ProAV journey, information is key: a little polite interrogation will always pay dividends for all stakeholders.

Q: How does Habitech prepare resi installers for the demands of commercial spaces?

No question that the install environments for professional and residential AV are as different as they are diverse. ProAV spaces are invariably larger, less forgiving acoustically and are inherently noisier. They require systems of a scale to match, so your go-to resi solutions are unlikely to shape up. We'll introduce you to the products that do. And because the distribution technologies for pro and resi AV are converging around IP networks, we've tailored our training to include content delivery as well.

A day with Habitech is a deeper dive into ProAV with two complementary courses, the first dealing with the fundamentals, followed by the more advanced aspects CAV integration. Armed with this knowhow, you'll have a better idea of how and where to deploy the leading talents of Wyrestorm and Netvio AVoIP, Yamaha Commercial solutions and Dante when combined with the industry's most versatile range of speaker solutions.

We'll show how the right approach to workflow leads to the ideal product choice, which produces the best design outcomes. And we'll help you with a design you can present to the client. But we'll go the extra supporting mile for your first project by guiding you in setting up the system prior to its arrival on site. As the case studies on our site demonstrate, our support is comprehensively end-to-end, and it all starts with a call to Habitech.

UNLEASH YOUR NETWORKING PRODUCTIVITY!

Netvio's blue-sky networking platform marks a fresh start for HDBT and AVoIP design says Video Solutions Product Manager Jay Brand



When economists talk about productivity, they're really expressing something far more tangible to all of us: the ability to generate cash. It's the age-old story of time and money. Higher productivity delivers greater output per input in any given period and greater rewards at the end of it. Which is why you owe it to your business to find the easiest productivity gains. And now that network design is swallowing more of your time and energy on every project, it follows that the quickest gains can be made by simplifying network delivery. If you're designing for HDBaseT and AVoIP, our new blue-sky AV distribution platform Netvio will deliver highest performance in the shortest time. It's the simplest way to boost your productivity and earning power. In fact, Netvio could be your golden ticket to value and success.

Why? Because in a single, extraordinary leap of innovation, Netvio has overtaken traditional thinking and technologies to deliver versatile and reliable AV design and control more easily, in less time and for ultra-competitive budgets. Challenging the reliance on complex hardware ecosystems, Netvio has deployed the best computer science brains from leading research institutions outside the CI bubble to create a unique 'program less' design environment, comprising 'Netvio 360' design software, the

'Netvio Go' end-user app, a powerful new matrix line-up offering performance and practicality way beyond rivals, and a similarly empowered new 'JP4' AVoIP ecosystem.

NETVIO 360

Rather than generating layers of custom software to initiate specific local compliances, the Netvio 360 utility creates a lingua franca for all network elements, producing simple configuration interfaces for multiple AV distribution technologies in a single piece of software. In effect the 360 front-end acts as a unifying bridge, so regardless of HDBaseT, AVoIP etc, the install experience remains the same, lowering barriers to design and installation.

And to make it even easier, Netvio 360 provides for the auto discovery, configuration and optimisation of Netvio products. This means you don't have to worry about changing IP settings, setting complex subnets, remembering default IP addresses or even optimising inputs/outputs for Netvio products: nine times out of ten, Netvio's default settings will achieve the best audio and video quality right out of the box.

What's more, Netvio 360's visual design canvas allows you to add, drag and drop displays, media sources and audio products. You can finger-draw control paths for each device, selecting from IR, RS-232, IP and CEC (subject to device capability), then group displays into single or expanded zones and add custom images to area/zone buttons. When you draw the line for HDMI, IR, RS-232, and introduce an IP device, Netvio automates the creation of the UI, adding the system device command structures and setting-up comms info (like baud rate and port number etc). In other words, Netvio 360 means intuitive virtuosity, no coding and productivity savings in the bank! Time to launch Netvio GO!

NETVIO GO!

Netvio GO is your customer's AV control app, dovetailed with 360. Compatible with Apple and Android smart phones and tablets, GO can control any AV device via IR, RS-232,



All Netvio HT2 matrixes, including the entry 4x4 model offer 70m 4K HDR capability out of the box

CEC and IP, managing signal distribution, media sources, displays and audio products. To add a user control (phone or tablet) device, use the Go app to scan the QR code that 360 generates. Netvio's 'micro-drivers' wrap up all necessary UI design elements and control commands, so when you add micro-drivers for, say, SKYQ, AppleTV and a Yamaha amp to your project in the 360 software, those devices will automatically have interfaces in the Go app. And for extra pizzazz, GO supports an amazing 1080p/30 preview stream through Netvio's new JP4 AVoIP encoders to deliver a uniquely engaging end-user experience.

NOT FEATURES, REAL ADVANTAGES!

Even so, Netvio's transformational command and control architecture is just one half of a compelling end-to-end proposition. Moving the unbeatable Netvio playbook way beyond the reach of rivals is the matrix hardware, bristling with the capability you'll need to master today's evolving networking challenges but missing from older rival platforms. For a start you'll get the added transmission distance. What if 40m doesn't cut it? When virtually every project has hidden complexities, why take the risk? Netvio's matrixes, including the 8x8, the 8x6 and even the HT2 4x4, give you a 70m 4K HDR output capability out of the box, right now, from as many as four outputs on the HT2-0808, and two on the HT2-0806. To put that in context, 70m 4K HDR is available only from one rival's flagship model (at just under £5k trade) and is completely absent from another's entire range. Then there's support for high bandwidth transmission of 4K HDR at 60Hz from the latest sources such as SKY-Q. Without this feature HDR 60Hz will not pass. And while this capability is available from a rival's flagship



Boosting your productivity gains: Netvio combines radically simple design and control software with feature-laden HDBT and AVoIP hardware

matrix, all Netvio's matrixes - including the HT2 4x4 - have it.

The same goes for the ability to auto scale 4K content down to 1080p across all HDBaseT and HDMI outputs, allowing a mix of new and legacy displays on the same matrix. Without downscaling, 4K source content will not show on older displays, so, naturally, this level of practicality comes as standard from Netvio. But can you find it elsewhere? While one rival offers a single scaling output, another fails to support any scaling at all. What's more, the Netvio HT2-0404 and 0808 have mirrored HDMI outputs for every HDBaseT output to connect AVRs or further displays in a wider system context. Such capacity is seldom available from rivals.

On top of all this, the Netvio HT2-0404 and HT2-0808 support networking over HDBaseT, allowing a full duplex network connection to pass over Cat5e/6 combined with video and control communications from as many as four outputs (0808). Neither of Netvio's main rivals supports networking at the 4x4 level.

AUDIO AS WELL

And with the HT2-0404 and 0808 you can build-in the ability to distribute as many as four audio-only sources (such as Sonos) to any matrix audio output or zone. This advantage isn't always possible from rivals, and when it is, you'll face the cost of added hardware. With Netvio its free-on-board!

The same 0404 and 0808 matrixes capture ARC from compatible displays and then

extract to any matrix audio output for direct audio system connection. And you can switch audio streams independently, in the same way as those four audio-only inputs. Certain rival flagship matrixes support ARC capture, but their 4x4s do not.

Moreover, while Netvio gives you the added benefit of direct zone RS-232 and routing to provide easy control of external devices such as displays or projectors, competitors cannot route RS-232 control.

NEW 4K/60 HDR AVoIP LAUNCHED

And just as Netvio has transformed the productivity of HDBaseT, so has its blue-sky approach to AVoIP in the form of its new 'JP4' range. In step with video evolution and way ahead of legacy AVoIP elsewhere, Netvio's AVoIP offering includes high performance JPEG2000 4K/60 HDR encoder/decoders and a dual network controller. Not only will it handle the highest 4K resolution over standard 1Gb IP, set-up is a game-changing breeze via Netvio 360's peerless auto discovery. What's more, both dealer and end-user experiences are renewed by the unique 1080p real-time preview stream via Netvio GO on both Apple and Android devices.

LONG-TERM PERFORMANCE GUARANTEED

But there's still more icing on Netvio's networking cake. Alongside a liberating level of network design practicality and convenience, Netvio is backed by a standard five year

warranty (10 years for 10% of product value) - by far the best in an industry where two or three years is the norm.

MAKE THE SWITCH TO SIMPLICITY

Rather brilliantly, Netvio's ground-breaking design platform allows you to step nimbly from hardware auto-discovery, through configuration and optimisation to end-user control, simplifying at every stage while rewarding you with a heightened level of creative versatility across multiple transmission platforms on a single intuitive visual interface. At once, your decisions will become simpler and your outcomes more sophisticated and powerful in a new world of coherent 'full-spectrum' end-to-end AV design productivity. And when productivity is up, so is your business!



Netvio's new JP4 AVoIP platform will handle 4K/60 HDR over standard 1Gb IP and offers a real-time 1080p preview stream on Apple and Android devices



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DRIVING PERFECTION

Wisdom Audio's unique speaker design proposition is custom made for CI says International Sales Manager Barry Pim.



Rapid technological advance has gifted your business with the power to deliver astonishing performance and intuitive ease of use to your customers. But amid the dazzling science of the metaverse, AI, M2M comms and IoT, a technology you install every day has remained virtually unchanged from the moment it was patented on 2nd April 1929.

Loaded into on-wall, in-wall and freestanding cabinets, headphones, even buds, Kellogg and Rice's electroacoustic transducer,

otherwise known as the 'dynamic moving coil' loudspeaker, has been making waves ever since, with varying degrees of success. There's no doubting its popularity: it's widely understood, easy to adapt for specialised frequency roles, relatively cheap to produce and for most applications sounds just great. But for a more tenacious breed of high-end speaker engineer, this goody bag of virtues is simply not great enough. In answer to the question "can we do better?", Wisdom Audio's design team has refined the 'Planar Magnetic Driver', or PMD, to become the epitome of ultra-discreet high performance transducers: the perfect choice, in fact, for elite screening rooms, home cinema and media rooms..

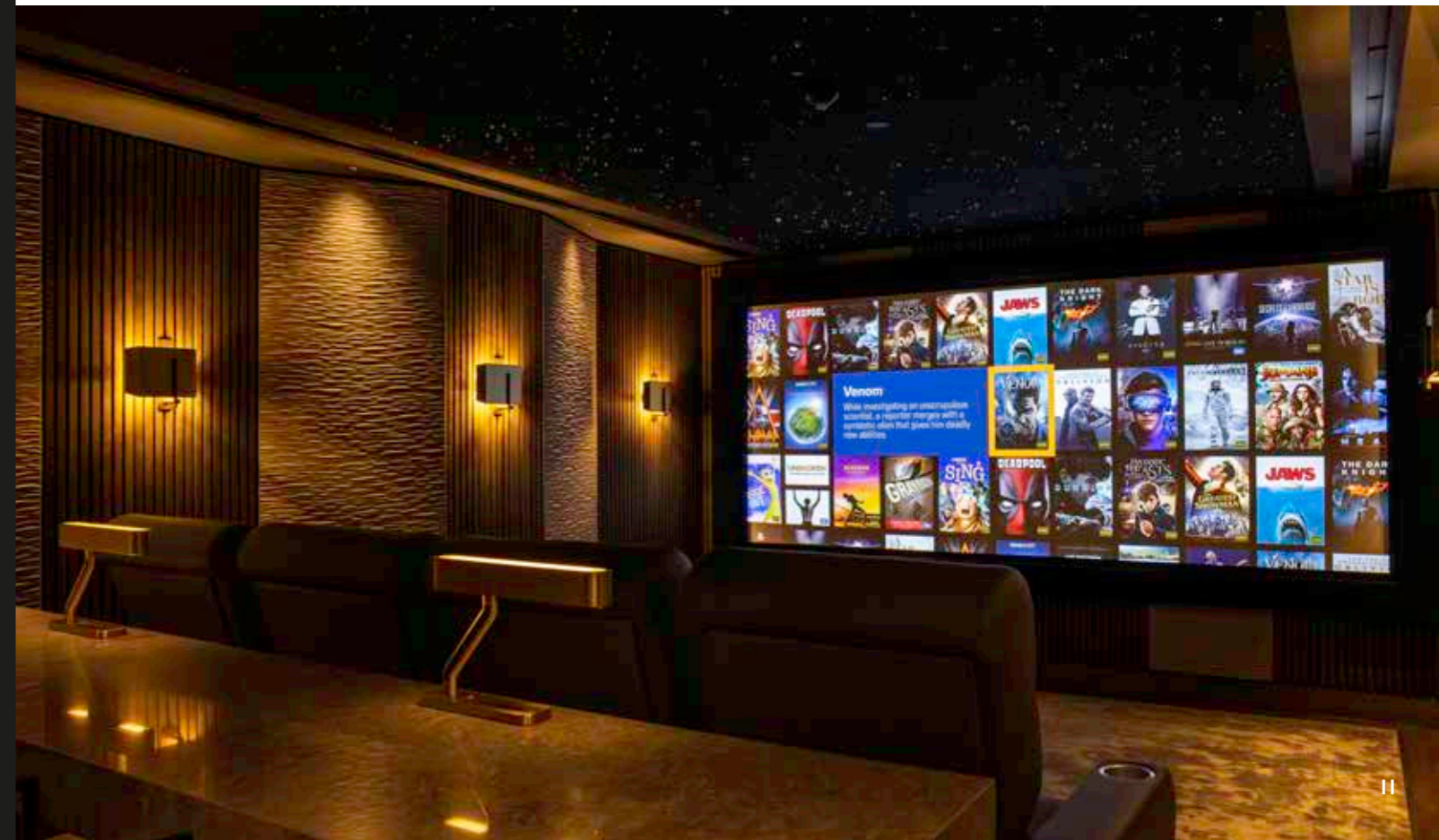
A THIN FILM OF RADIATING GOODNESS

This is because PMD tech hands you the means to integrate extraordinary sound for your best customers. By chemically bonding the voice coil track to a thin-film diaphragm of high temperature resistant polyimide, surrounded by the extraordinary force of tiny rare-earth neodymium magnets, Wisdom's proprietary PMD design combines the virtues of electrostatic drivers and

ribbons (detail, low distortion, and even, controlled dispersion), with the strengths of dynamic speakers (high reliability, power handling, dynamic range and sensitivity). In other words, Wisdom's magical PMD has transformed the capabilities of traditional driver design, removing compromise while boosting detail, dynamics, accuracy and power handling across an extended range from beyond 20kHz down to an unprecedented 80Hz (in the flagship LS4 model). What's more, when used together in a tall column speaker, Wisdom's large-scale Planar Magnetic Drivers are able to generate the fabled qualities of Line Source design.

LINE SOURCE V POINT SOURCE

Most speakers in the world are Point Sources, whose sound expands away from the speaker as an ever-enlarging sphere. This happens because the vibrating diaphragm is small compared to the sound waves it is producing. Sound from a Point Source spreads out like ripples from a pebble thrown into a pond, but in three dimensions. It thins out as it expands, reflecting back into the space from the room boundaries so that delayed versions of the original signal collide with the direct



sound at the listening position. It's an audio mashup, and the reason why enclosed spaces are an earache for audio designers.

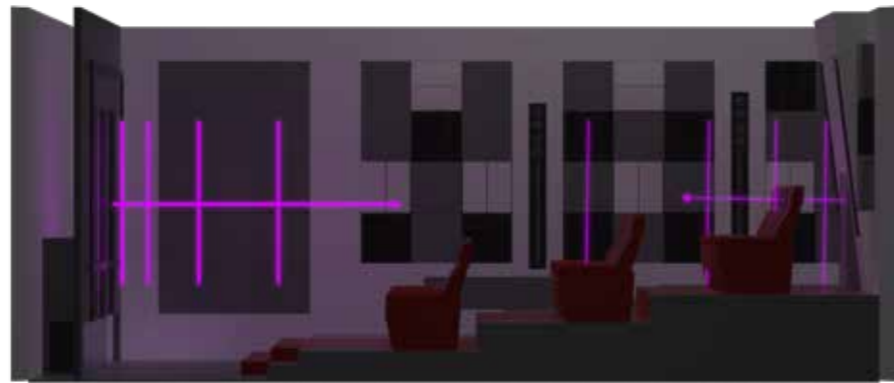
Line Source speakers make everything simpler. The physics says that when a vibrating diaphragm approaches the size of the sound wave it is producing, the sound becomes more directional, radiating away from the source in the shape of an expanding cylinder. Sound from a line source advances like a tide, rather than a 3D spray of frequencies. Aided by this focus, the sound from a Line Source doesn't 'thin out' nearly as fast as sound from a Point Source speaker. In fact, Line Sources deliver half the propagation loss of conventional Point Sources, generating a more uniform SPL throughout the space and a generous 'sweet-spot' of level and frequencies. Front to back, side to side, each listener is served with the same dynamic, wideband audio experience. And since Wisdom's Line Source PMDs deliver sound into a space more efficiently, effortlessly high intelligibility and level are achieved with less strain on the electronics. Counter intuitively, greater 'power over distance' does not mean ear-splitting volumes close to the speakers. It's a physical phenomenon unique to Line Source design. Best of all, vertically controlled dispersion eliminates those damaging floor and ceiling reflections where human auditory senses are most acutely focussed, so the audience hears more of the speaker and less of the room. With Line Source, everything becomes easier and significantly clearer. This makes Line Source the go-to technology for the best cinema and media room applications.

IS LINE SOURCE THE SAME AS LINE ARRAY?

Perhaps with the best intentions, some of the marketing available has blurred the distinction between Line Source and Line Array, but they are not the same. Being tall and thin, a Line Array may look like a Line Source, but rather than use a limited number of large wideband drivers, Line Arrays squeeze multiple Point Source speakers into a column (like the PA towers at a rock festival). By virtue of its size and shape, a Line Array tries to mimic the dispersion of a Line Source, but instead multiplies the distortion caused by many Point Source speakers interfering with each other and room boundaries. Sound from rivals deploying a Line Array of multiple AMT or moving coil drivers for instance will suffer comb filtering: the sound will be chopped up by many tiny delays. In free air within large commercial venues, Line Array towers are a great solution because comb filtering effects are less apparent at large distances, but within an enclosed



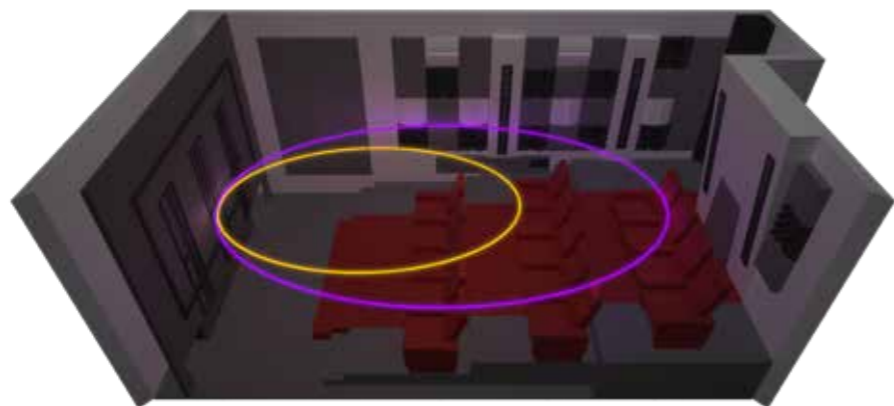
Point of confusion: Point Source propagates in all directions providing more reflected sound v direct sound



Line of clarity: Line Source propagates in a controlled vertical fashion, providing more direct sound v reflected sound



Power over distance: Line Sources have half the propagation loss of Point Sources, providing a better row to row consistency



A shared experience: Line Source provides a wider sweet spot



Every Wisdom Audio in-wall, in-ceiling, on-wall and free-standing speaker, including the flagship LS4, L150, L75, P38, P20 and ICS7a deploys PMD technology

space such as a cinema room, it's another audio mashup. As we've seen, Line Source is a wholly different technical ball game, so when a manufacturer claims to have developed a Line Source product, it's almost certainly something else.

SPACE CRAFT

So why isn't every speaker made for Line Source dispersion? Two big reasons: practicality and technical complexity. To target the benefits of Line Source where they matter most, above 160Hz, Wisdom's line source speakers are tall - around 2m. This means that in-wall, on-wall, and free-standing versions are a natural fit for LCR and stereo applications within the larger home environments, but sometimes impractical for smaller rooms - we have other designs for that. Then there's the rarefied engineering. It would be impossible even for a high-end brand comfortable with moving-coil drivers or maybe AMT ribbons to attempt the leap of invention necessary to devise a driver as advanced as Wisdom's ultimate technical tour de force: the large scale PMD. By way of this extraordinary breakthrough, Wisdom Audio meets the demand for outright quality, performance and exclusivity. Just look at what our largest drivers can do. For example, the towering LS4 Line Source flagship housing Wisdom's reference PMDs delivers a radiating area equivalent to as many as eleven twelve-inch moving coil woofers, and ninety-six one-inch dome tweeters, with a sensitivity of 100dB. Amazing as it may seem, a single system is capable of reproducing sound pressure levels to a staggering 130dB at four metres, satisfying the most critical music and film aficionados.

And where Line Source isn't practical, Wisdom Audio deploys matching, tonally accurate PMD tech across no fewer than

twenty-six Point Source speakers for in-wall, on-wall, in-ceiling, LCR and free-standing applications. All this versatile product prowess means that in rooms of any size, Wisdom's promise to deliver 'being there' fidelity is not only viable, it's assured. What's more, because the PMD's radiating surface is inherently flat and thin, our technology is perfect for the flush installation so beloved by CI. As a custom cinema designer, you can take it to the bank!

THE DEEP

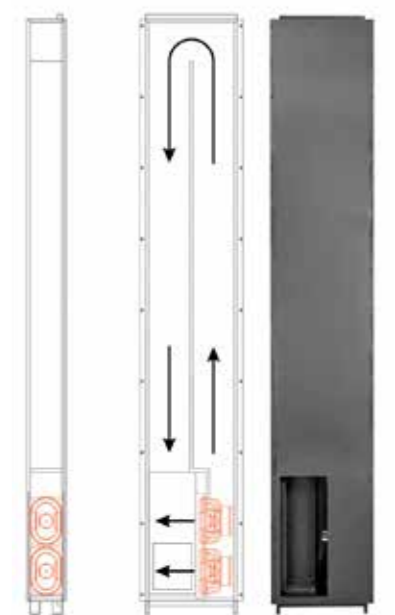
You'll love our bass as well. Below 150Hz, where sound is far less directional, we integrate multiple bass drivers with our Line Source modules. At these frequencies the outputs couple together to create what is effectively a single low frequency radiator with the speed to match our PMDs. But to generate natural dynamics with low distortion down to 20Hz and flat to 2dB, we needed to design something far more radical, having the ability to enhance output over the complete bandwidth of the woofer system. Wisdom's Regenerative Transmission Line (RTL)® subwoofer technology uses the acoustic output of both sides of the woofer diaphragm to drive the same internal transmission line. In effect the operation sums three acoustic outputs to deliver between six to nine dB of gain over the total pass-band, boosting efficiency and maximum output and significantly reducing cone movement and distortion.

Available from our freestanding STS, SCS-2 and SAS subs and as many as six super-discreet in-wall and in-ceiling variants, RTL can generate, for example, up to 130dB at 20Hz from the flagship STS model, 128dB at 30Hz from the single 10-inch driver inside the S110i in-wall system, and 123dB at 20Hz (enough to pressurise a small, terraced home) from twin 5x7-inch drivers within the

impossibly thin (15.5cm) S90i in-wall design. Astonishing but demonstrable. As the old proverb goes, the proof is in the pudding...

THE POWER TO COMMUNICATE

And that's exactly what I'd love you to do. Try the pudding. Wisdom Audio can supercharge your design potential in any cinema or media room application. No other speaker brand offers you the compelling choice of pure line source and compatible point source designs, inherently slender in profile yet capable of matchless fidelity, custom made for the complete CI playbook. It's a giant leap in capability for loudspeaker technology, but in this age of dazzling science, you'll take that in your stride!



Wisdom's Regenerative Transmission Line (RTL) tech can generate 123dB at 20Hz from the twin 5x7-inch drivers inside the super-thin S90i in-wall design

CASE STUDY

Roxy Lanes, Bristol

Major UK leisure group is bowled over by the easy high performance of Netvio AVoIP at Bristol's newest all day/night bowling and games venue.



...the entertainment experience is complemented by a house sound system and as many as twelve TV screens showing live sport around the venue and over a large sports bar.

Located on Union Street at the heart of the city centre and on the site of a former gym, Roxy Lanes bowling alley and sports bar is the latest addition to Bristol's vibrant entertainment scene. It's the newest development by Roxy Leisure Group, which has opened similar venues across the UK in cities such as Manchester, Birmingham, Nottingham, Liverpool and Leeds.

Created primarily as a state-of-the-art ten-pin bowling destination, Roxy Lanes Bristol offers its customers the choice of eight full-size bowling lanes, as well as a wide range of other activities such as batting cages, shuffle boards, duck-pin bowling, full size pool tables, basketball shooting hoops, beer pong, arcade games, ice-free curling and karaoke rooms for up to twenty people. Beyond Roxy Leisure's widest selection of games, the entertainment experience is complemented by a house sound system and as many as twelve TV screens showing live sport around the venue and over a large sports bar.

For the AV, Roxy Leisure turned to local integrator Media-Frenzy North Ltd with a very specific brief. Media-Frenzy North's Managing Director Rob Woodhouse takes up the story: "we started



The system at Roxy Lanes involved distributing six sources, including Sky HD+ and signage players to twelve screens in six zones.

in 2003 supplying TV and film services. In 2004 we were awarded a large contract to install interactive white boards in schools, which led on to installations in boardrooms, colleges and churches. Hospitality and the leisure industry followed on from this. Prior to the Roxy Lanes job, we'd built a good reputation for delivering large installations on schedule and on budget with comprehensive customer care, so were asked by Roxy Leisure to pitch, with the emphasis on functionality, scalability and ease of use for the staff at the venue. "They wanted a video switching system, which made switching sports and signage to displays intuitively easy. "So, we asked Netvio to get involved."

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"Netvio's JP4 IP is so modular and versatile that programming and commissioning was completed in a single day."

"Netvio is a new networking tech company with a fresh approach to system design and configuration, removing a lot of the comms hassle that comes with traditional brands. "Its powerful app-based tools introduce simple drag-and-drop design (Netvio 360) and easy end-user control with live preview streams (Netvio Go) that's so cost effective; it's simple to install and gave our client exactly what they wanted at the price they wanted it at. "What's more, because Netvio's JP4 IP is so modular and versatile, the client is able to change screen content and quality at any time, and programming and commissioning was completed in a single day, with time left to start handing over."





Three large displays over the bar area and nine further screens are driven and controlled by Netvio JP4 AVoIP

The Installation

“The system at Roxy Lanes involved distributing six sources, including Sky HD+ and signage players to twelve screens of various sizes from manufacturers LG, Samsung and Hisense in six zones, including three large 85” displays over the bar and nine further screens covering front of house locations as well as various games areas near the ice-free curling, pool tables, shuffleboards and bowling lanes for instance.”

“The Netvio components comprised six IP-JP4-TX-10 encoders, twelve IP-JP4-RX-10 decoders and an IP-JP4-CL-10 controller: it was plug-and-program, literally. “The Netvio was programmed and setup to switch CEC screen and Sky HD box control.”

“This was our first Netvio install with the JP4 series, but Netvio’s support was fantastic...From now on I will just use Netvio – it’s just so simple, why would I use anything else.”

The challenges?

“Because the customer was very keen to see the product in action and discover the practical uses and cost benefits of a sophisticated video distribution setup, we had to deliver a powerful yet easy to control solution for the lowest cost possible. “We needed to prove the concept for this venue and any others that may happen in the future. “Netvio obliged versus all the alternatives, which are too complex and expensive. “This was our first Netvio install with the JP4 series, but Netvio’s support was fantastic. “Their help in demonstrating the system and explaining the benefits to the client helped us to win the project – Netvio’s remote and onsite support were first class.”

The results

“The quality of the Netvio Go control app blew the customer away. “The live preview streams in the app make it so easy to switch the right content to the displays even for new staff. “Roxy Leisure are really happy with it; they tell me that the app is “amazing”.

“It’s like the future, it just works.”

“From now on, says Rob “I will just use Netvio – it’s just so simple, why would I use anything else”

FACE TO FACE

**Charles Plumb,
Sales Manager**

“We don’t sell boxes to all comers. Instead, we aim to add long term value to relationships with the right people. That’s a quite a profound distinction which everyone at Habitech signs up to - the sales teams, the support guys, the service team, everyone.”



Q: How did you and Habitech end up on the same page?

I was happily running my own web design and support company when Jonathan Pengilley and I were introduced at the pub in our village. The landlord had heard we were both connected with technology so assumed we’d have plenty to talk about. Jonathan began thinking of ways to get me involved with Habitech and my first foray involved managing a Habitech sister company called ‘TecBlu’ selling smart home kit like Ring video doorbells and Philips Hue. This was 2017 when online IoT was really taking off, but we couldn’t compete with the tiny margins offered by the major resellers, so we used the platform to sell end-of-life inventories

to canny buyers in the UK, Europe and the US. This was an extremely efficient and successful way to sell aged stock, but ultimately unsustainable, so Jonathan gave me the opportunity to join a ‘junior’ team of sales guys targeting the small and mid-sized accounts that the senior guys did not have time to service properly. Some of these ended up as top ten accounts, helping the new team to contribute to Habitech’s soaring sales growth pre-pandemic.

Q: Sounds like you took to sales like a duck to water, but has the path from web design to sales success really been that easy?

In all modesty the answer is yes. My love for tech makes it easy for me to enthuse about a product I’m selling if it can bring genuine performance and user benefits to the customer. I was 25 years old when I started for Habitech and I was talking to guys that had been in the business 10 or 15 years longer. They knew a lot, but perhaps my fresh perspective and energy helped me to forge very productive relationships. I did - and do - lean on Timmi and Jonathan for advice though, and Jonathan’s mentoring has always been extremely valuable in embedding the company’s founding mission, which is ‘add value’. This means developing partnerships with our customers to help grow their businesses, because the outcomes are always mutually beneficial. We don’t sell boxes to all comers. Instead, we aim to add long term value to relationships with the right people. That’s a quite a profound distinction which everyone at Habitech signs up to - the sales teams, the support guys, the support team, everyone.

Q: Does leading a sales team differ greatly from your old job as an area development manager?

Yes, in that the responsibilities have multiplied: it’s no longer just my area that keeps me motivated, it’s the entire country for resi products. Recent restructuring at Habitech means that Timmi has become head of sales with particular responsibility for our growing ProAV business, while I’m leading the resi sales effort. But we’re able to deploy all the analytical tools available to drill down into the numbers to identify which brands and technologies need extra energy, defining the goals and directing the effort for positive outcomes, which will benefit Habitech and its dealers. I truly believe that if Habitech succeeds, so do our partners.

Q: You’re selling into a mature resi CI market, so where are the future opportunities?

Actually, I disagree with the premise of the question. There’s plenty of growth left in the UK CI market before it gets anywhere near the US in terms of penetration. And I’m not talking about DIY IoT; there’s so much to achieve in sales and support for higher-end resi and commercial projects - I think we’re just scratching the potential when simpler AVoIP system design has the power to boost sales of high performance hardware. And if you’re asking me to spot a rising tech star, I think Dante will play a much bigger role in residential AV integration. So, there’s lots to go at and great opportunities for business growth on both sides of every partnership. For me it’s all about having fun and making money for our partners.”

MORE POWER TO YOUR NETWORKS



If you're designing for CI, you're a networker at heart. By building local access to the limitless bounty of the ever-changing Internet – the mother of all networks – you share the dynamic challenge that unifies our industry. Today, it's impossible to imagine a CI project

that isn't tasked to meet the need for rapid Internet access and unbreakable WiFi. In fact, for many of our customers, fast, reliable broadband has become the fourth utility.

But the challenges are rising. Inspired by changing work/life priorities and stoked by fantasy expectations from social media, demand for bigger, better, faster is exponential. Post pandemic, your business is torn between customers expecting no-fail control over rocketing service delivery on one side and failing global supply issues on the other.

THE CHIPS ARE DOWN

It's as plain as day to everyone who can tell a router from a switch that the pandemic and all the world's other travails have conspired to create a black hole in the supply of networking products at a time when households need them more than ever. Prices from Cisco,

When networking isn't working as it should, we'll meet demand for product and knowhow from a new, supercharged ProNET platform, says Technical Manager Justin Martin-Lawrence

Aruba, Ruckus and other leading manufacturers are sky high as they try to absorb component price increases while soaring consumer demand sucks in grey imports at seductive rates from the major e-tailers. As expectations of performance and price move rapidly in opposite directions, your budget-conscious customers are looking online for lower cost solutions with no guarantee that the cheaper PoE switch or AP they just bought will meet all of its promises. It's a dysfunctional mess, but we have a cunning plan to ease the squeeze.

AN END TO NETWORK WHAC-A-MOLE

Back in 2012, when wireless network design was an elusive skillset, we created ProNET: a platform of CI-centric networking products and training dovetailed to help our integrators meet the clamour for easier, faster web access. Today, in response to a market fraught with supply issues, soaring cost inflation and



We're offering your business an expanded suite of proven networking brands supported by high stock levels, stable pricing and supply security



RIVI is Ruckus WiFi in all but name



Cambium: affordable, dependable WiFi and switching solutions that 'simply just work'



By including Netgear, the new ProNET toolkit delivers an entry-level enterprise solution

subverted by grey underselling, it's time for a further leap in value-added capability from a new turbocharged ProNET initiative. We're offering your business an expanded suite of proven networking brands - including Ruckus and Draytek, and new brands Cambium, Netgear and RIVI - supported by high stock levels, stable pricing and supply security, integrated like the teeth of a comb so that whatever your project's scale and sophistication, design becomes tangle-free. It's a new support bedrock that leverages ProNET's foundational appeal more effectively than ever. By delivering a peerless synergy of knowhow and supply to a market deficient in both, ProNET has never been more powerful or advantageous to your business.

MEET THE NEW PRONET BRANDS: RIVI

Our successful and enduring partnership with Ruckus has gifted Habitech with the opportunity for OEM supply through RIVI, a privately owned company with exclusive distribution rights for EMEA. Trademarked 'RIVI', it's Ruckus WiFi in all but name right down to the packaging: it says 'RIVI' on the box, but the world-beating competences are the same. You'll get compatibility with Ruckus Unleashed and SmartZone capabilities, all the Ruckus techs, and simple set-up which mirrors Ruckus configuration with the RIVI brand. Better still, RIVI products are manufactured specifically for the CI Channel according to strict OEM schedules. This means that when supply is tight, as it is now, product cannot be diverted to please bigger global customers. Shipments are not transferable. Instead, they're ringfenced for you. What's more, your margins cannot be threatened by grey subterfuge. The five new RIVI WiFi 6 APs include the RV35 2x2, the RV55 2x2, the RV65 4x4, the RV75 4x4 and the EV35 2x2 outdoor AP. Supported by Habitech, RIVI gives you Ruckus performance together with price security and reliable supply. In other words, renewed certainty for your business.

CAMBIUM NETWORKS

For an enterprise networking solution with cloud management, use Cambium. Spun out of Motorola in 2011, Cambium is a specialist manufacturer of enterprise WiFi and network switch products whose 'Wireless Fabric' infrastructure, unified by the cnMaestro™ cloud management system, has been proven by countless real-world deployments across the US and globally for over a decade. Promising affordable, dependable WiFi and switching solutions that 'simply just work' our new Cambium range for mid to high density environments offers you three APs: the 2x2 WiFi 5 e410, the 2x2 WiFi 6 XV2-2 and the 4x4 WiFi 6e XE3-4, complemented by two 'cnMatrix' switches: the 400W PoE+ EX2028-P and the EX2016M-P, with 240W UPOE/PoE+ capabilities.

Tying it all together is the company's free-for-life cnMaestro cloud management. Maestro is HTML5 based and so, like Ruckus SmartZone, is completely portable across all platforms. What's more, it offers limitless customer accounts and within each account, as many as 2000 sites. In practical terms its capacity is boundless. You'll get a 'single pane of glass' for device configuration, diagnostics, throughput, even an RF spectrum analyser for complete system management, and unlike many cloud-based products, cnMaestro doesn't need to be running for WiFi operation. Register and preconfigure your devices by simply scanning a barcode or entering a serial number at the office prior to installation on site. Easy. Even easier is Cambium's companion 'Swift' app, which runs on cnMaestro for one-touch, out-of-the-box deployments, making it ideal as a means to get the system up and running as quickly as possible for the customer. I've thrown everything at Cambium and I'm happy to report that you can believe the marketing: it just works! We're confident that Cambium's powerful versatility won't let you down, because for the past four months, Habitech's office WiFi has relied on it!

NETGEAR

By including Access Points from Netgear, the new ProNET toolkit delivers an entry-level enterprise solution, plugging the holes in availability left by brands like Ubiquiti. We've selected the Netgear indoor WAX615 and outdoor WAX610Y 2x2 WiFi 6 APs, which major on simplicity, with PoE, off-site plug-and-go product set-up, auto discovery and multi-site cloud management from the Insight app on phone or laptop. And although these APs are directly supported by Netgear, their 'touchless' set-up and onboard auto optimisation features more than compensate. Like me, you'll be amazed at the throughput and reliability, and crucially, you'll enjoy the efficiency of ProNET supply alongside performance that belies their budget moniker.

The same is true for our pick of Netgear's switches. Purpose built for the likes of Wyrestorm, Netvio, Crestron NVX, Dante and AVB, the 'AV Line' M4250-10G2XF-PoE+ switch can be configured in minutes through a template driven GUI: simply select the ports and apply the appropriate template for what you want them to do. Connect multiple M4250 copper switches to the M4250-16XF 'fibre aggregator' 16 port SFP+ switch to scale for up to 4 x 32 (or 2 x 64) zones of AVoIP, or choose the XS748T, 48 port 10Gbe switch for SDVoE, perfect for Wyrestorm NHD600 series. Best of all, you can make a reasonable margin on these switches and lean on Habitech support when you integrate with other Habitech brands like Netvio and Wyrestorm.

BUILDING BETTER NETWORKS

If acute supply volatility is leaving your network projects in limbo, ProNET will raise the bar. It remains your one-stop for product and knowhow, but we've widened the options and we're buying big to reduce the risk of delays on site. As I write, we have Cambium XV2s as well as Netgear's APs, AV line and SDVoE switches ready to go, with RIVI nailed on for Q3. Better still, we're planning to focus that celebrated ProNET synergy on a new network design service: you describe the space and budget; we supply the ideal design and support. It's all part of the decade-long ProNET mission to deliver more power to your network design, only this time - to borrow from a famous energy drink - it comes with wings!

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NEW PRODUCT SHORTS

Game Changing NetworkHD 500 AVoIP and BenQ V6000 series UST Projectors

Wyrestorm's new NetworkHD 500 series is a full HDMI 2.0 AV over IP solution with a big advantage. Unlike competing products, Wyrestorm has enhanced superior encoding technology with a larger, faster memory - as big as 8Gb - for the most pristine JPEG2000 performance. This means ultra-low latency encoding and visually lossless results up to 4K60 4:4:4 8bit, together with support for high framerate Dolby Vision, HDR10 and HLG content up to 12bit 4:2:2 at 60Hz over a 1GbE network at a range of up to 100m.

New range-busting fibre outputs extend the reach to 550m using typical OM3 MM links while a powerful routing engine allows audio, video, USB and control signals to be sent discretely to any endpoint. ARC capability supporting up to Dolby Digital Plus (including Dolby Atmos) and DTS 5.1 formats makes the same journey, and on top of all this, advanced processing delivers ultra-fast switching, as well as the ability to

build imaginative video walls of up to 16x16 (256 screens) with bezel correction - even on rotated screens - and control them with the free-of-charge 'Touch' control app.

The app works in tandem with a NetworkHD controller, like the new NHD-CTL-PRO, to offer you effortless system management using familiar gestures, making NetworkHD 500 one of the simplest AVoIP systems on the market to configure and control. Dual power on the NHD-CTL-PRO supports both PoE or a local AC power connection while dual network interfaces allow it to bridge AV networks and enterprise/control networks, keeping multicast AV traffic separated from managed IT systems.

And you can trust Habitech to support the NHD500 ecology end-to-end with the best cost compatible IP network infrastructure. For instance, scale up your AVoIP systems simply by adding a switch from our new

Netgear range of powerful and affordable Gigabit PoE+ designs. Best of all, as competing supplies dry up, Wyrestorm's game changing NHD500 series is in stock right now at Habitech!



BENQ V6000 SERIES UST PROJECTORS

Ideal for bright rooms, the V6000 series produces 100" images just centimetres away from the wall or projection screen. This makes the V6000 (silver) and V6050 (black) 4K UHD resolution Ultra Short Throw Laser Projection TVs the most convenient projectors to install for more a casual big screen viewing outside the main home theatre. In fact, their 3000 lumens high brightness will light up screens (especially ALRs) of up to 120" from just 30cm away, even during daylight hours, while delivering a rich colour gamut at 98% of DCI-P3 standards. And in tandem with a long-lasting (20,000 hr) laser light engine, BenQ's exclusive HDR-PRO™ technology offers enhanced contrast of 3,000,000:1 for a 4K HDR viewing experience true to HDR10 and HLG standards. The ideal match for 4K HDR video sources, BenQ's V6000 series will replace that big, bulky TV or ceiling-mounted projector for big screen entertainment in minutes.

A clever, integrated screen size measure helps to calibrate the precise screen size, while an automatic 'sunroof' closes when the projector is not in use to protect the optics from dust. A built-in sound system completes the ultimate in high performance AV convenience within bright, informal environments where versatility is a key capability.





ABOUT HABITECH

Useful information about our value-added support and services, plus all the ways to get in touch.

OUR WEBSITE

habitech.co.uk gives you the ability to manage your account in its entirety from one place. You can view your personalised pricing, build quotes, wish lists and place orders. You can view and track your order progress, see returns and manage your invoices and available credit.

You will have received a username and login for the website from the sales team but if you haven't had this through please do give us a call on 01256 638500. You can also place orders with our sales team directly by either emailing us at sales@habitech.co.uk or calling 01256 638500 and selecting option one.

OUR SHOW ROOMS

Demonstration spaces include three state-of-the-art cinemas, audio demonstration areas and dedicated listening rooms as well as video distribution solutions, commercial audio solutions and one of the largest lighting control demonstration suites in the UK. Contact your account manager to arrange a tour or invite your clients for a demonstration.

HEATMAP SERVICE

When the network is at the heart of the connected home we want to help you build the most robust networks possible. Just give us your floorplans and wall materials and we will simulate the predictive Wi-Fi Access Point coverage available so you can specify the ideal plan for uninterrupted coverage.

CINEMA DESIGN SERVICE

Our team of cinema experts will combine all the elements of your project to produce

an entire turnkey cinema specification. From acoustic treatment to speaker layouts, bass management and interior design, we'll create the complete plan for the perfect cinema room, bespoke to your client.

AUDIO DESIGN SERVICE

Getting great audio coverage in any space can be challenging, so our audio team will 'heat map' your projects to ensure an even and consistent sound coverage throughout. You will receive a full proposal including design and product recommendations.

AV SYSTEM DESIGN SERVICE

If you need help in planning a project, our product management team can work with you to produce an ideal AV distribution schematic, outlining connections and equipment topology.

OUR COMPANY

Habitech is a value-added distributor specialising in AV and network technology in the residential, hospitality, retail and leisure industries. Using decades of experience we aim to bring you the best brands, products and services available for the best possible experience - from quote to delivery and beyond - backed up by the industry's most comprehensive in-house and webinar training.

GET IN-TOUCH

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