



Front Panel Control
Routing can be performed by direct button selection or spin knob control.

Built in Monitoring
View sources, destinations and labels on the full HD resolution screen!

Spin Knob Control
Simply scroll through your sources and destinations with ease.

Redundant Power
Two built in supplies keep the router operating in case of a fault!

Router Control
Ethernet lets you plug in a computer or hardware panels for control.

12G-SDI Inputs
Connect any combination of SD, HD and Ultra HD video inputs.

12G-SDI Outputs
Connect to any SD, HD and Ultra HD equipment all on the same router!

Connect all your SD, HD and Ultra HD gear and eliminate messy cable patching with the new Smart Videohub 12G!

Smart Videohub 12G 40x40 is the world's first 12G-SDI Ultra HD mixed format router with built in video monitoring and spin knob router control. You get the latest 12G-SDI technology so you can simultaneously connect and route any combination of SD, HD and Ultra HD video, up to 2160p60, all on the same router at the same time! You also get revolutionary new visual routing that lets you route signals simply by looking at the video on the front panel, plus unlimited users can control remotely via Ethernet from a Mac or Windows computer or optional hardware control panels!

Advanced 12G-SDI Technology

Smart Videohub 12G 40x40 features advanced 12G-SDI connections that allow high frame rate Ultra HD up to 60 fps over a single SDI connection. Each router SDI output includes an SDI re-clocker for better signal integrity and longer cable lengths, plus 12G-SDI automatically switches speed so is compatible with all your SD, HD and Ultra HD equipment.

All Video Formats Simultaneously

Smart Videohub 12G 40x40 includes multi format technology so you can simultaneously connect SD, HD and Ultra HD equipment all on the same router. Smart Videohub will automatically detect the SDI video format when it changes and instantly switch standards to all connected outputs. This means you can seamlessly work in NTSC and PAL SD, 720 and 1080 HD and even 2160p60 Ultra HD in the same facility!

www.blackmagicdesign.com/nl

*SRP is Exclusive of VAT.

Visual Routing

Smart Videohub's super fast spin knob control lets you dial through your router crosspoints while displaying live video combined with custom on screen labels. Scroll order is arranged alphabetically so it's easy to find the crosspoint you are looking for! Imagine scrolling through your connections while viewing them as live video on the LCD!

Built in Video Monitoring!

Now you can monitor all the live video connected to your Videohub. That means you don't need a separate external monitor because it's built into the front panel of the router itself! You can look at any source or destination and confirm the correct video inputs are being sent to the correct video outputs.

Ethernet Control

You can control your Smart Videohub 12G 40x40 with the included free Videohub Control software for Mac and Windows. Videohub Control software has an elegant user interface design with attractive icon buttons and when used with touchscreen computers, you get a fantastic large screen XY control panel!

Smart Videohub 12G 40x40	€4 495*
Smart Videohub 40x40	€2 695*
Smart Videohub 20x20	€1 795*
Smart Videohub 12x12	€1 255*
Smart Videohub CleanSwitch 12x12	€1 345*

The way schools and universities teach their students is changing, and technology is at the forefront of this evolution. Paul Milligan speaks to integrators across EMEA to gauge the latest developments.

Learning on demand



AV in the education sector has always been idiosyncratic. System integrators don't always have access to the end client – in this case students or teachers/lecturers – and have to deal with either AV managers or IT teams. Also, the technology the integrators do install can be met with apathy or even resistance from end users, loyal to a more traditional (non-technological) method of teaching. Yet throughout the world, in periods of austerity or not, this sector continues to spend big money on AV technology.

Clients in education are becoming better informed as to what they want partly because manufacturers have awoken to the financial benefits of courting such a group. “They are certainly getting better exposed to new products direct from manufacturers who are keen to get in front of the key players and decision makers, and the clients are taking more interest in products at relevant events they attend,” says Inesh Patel, from specialist education integrator Snelling Business Systems. In fact, many manufacturers now have business development staff in place whose job it is to talk directly to universities. “Obviously the manufacturer is only going to discuss their solution that they have as opposed to other solutions,” says

“Ten years ago we put in a lot of work just to inform the educational market about technologies. Today it is much more common to meet clients who know what they want.”

- Anna Kirichenko, Polymedia.

Roland Dreesden from UK integrator Reflex. “So its down to the integrator to give an independent point of view.”

It has been a slow process over the last decade to get users in education up to speed says Anna Kirichenko, from Russian integrator Polymedia, but things are getting better. “Ten years ago we put in a lot of work just to inform the educational market about technologies such as interactive whiteboards, projectors, visualisers and so on. Today it is much more common to meet clients who know what they want.”

Many of the integrators we spoke to had organised or attended so-called ‘sandpit’ events, where AV managers from higher education establishments are invited to look at a range of products, aimed at education usage. Although there is greater product knowledge within the education sector now than say five or ten years

ago, most of that is in higher education, and there is still a huge gap between students and teachers in schools says Theo van Hemert from Netherlands-based integrator Hulskamp. “Most AV equipment is heading towards an IT structure, and the students, who I call the iPad generation, are very familiar with computer technology and teachers aren’t always the same.”

Historically new technology wasn’t always met with the warmest of welcomes in lecture theatres and classrooms. Teachers who had been in education for decades were hesitant to learn new ways, and this meant technology such as interactive whiteboards was installed in classrooms without ever being switched on in some cases. In a world of iPhones, iPads and ever-increasing computerisation, can it still be the case that integrators are still met with resistance when installing AV technology? It is still an issue says van Hemert. >



< “The new way of working has to fit into their way of teaching. If it means they have to do more work inside or outside of teaching hours there is resistance and they will need lots of convincing.” Things are changing slowly says Kirichenko, and integrators are helping to bring about this change. “We see doubts not resistance. For teachers it’s a case of ‘how do I use all of this technology without losing the educational value?’. To avoid such a situation we provide not just a user guide but also a ‘how to teach with technology’ recommendation with all the equipment we supply to schools. Our training centre provides webinars and training.”

One way to help remove the fear of new technology is to standardise across the whole campus. This is an approach that has worked well for Snelling, as it removes nasty surprises for lecturers when they move from room to room. It also cuts down on service callouts for on-site AV managers. The psychology of teachers to technology is also changing says Patel. “There is a growing participation of teaching staff in the actual design and concept phases of a project. As

more teaching staff warm up to the idea of learning technology, they have begun feeling their own importance in a project, justifiably so. Trouble arises when teaching staff come to a workshop, for example, with set notions of the end-product which may not always be technically feasible or beyond sanctioned budgets.”

With (some) teaching staff reticent to use technology, ease of use is the most important issue for integrators to consider when specifying AV technology? “101%,” says Dreesden. “Lecturers want to walk in and press a button and it works. When they finish another lecturer will come in and expect the same thing. So it’s important the systems installed are easy to use, intuitive and do not look over complicated.” Integrator TechnoQ from Qatar was another to echo this point. “The professor only has a limited time to give the lecture, so valuable time is lost if they can’t turn it on. Sometimes we get requests from professors for certain technologies and we have to say it’s too complicated or it’s not practical,” says Zeyad Al Jaidah. The number one issue for Hulskamp in education is

not so much ease of use, but answering the question from educators of ‘how do you want to perform in your class?’ says van Hemert. Hulskamp has run a series of pilot programmes when installing new technology, and this model is being repeated by other integrators throughout EMEA. ‘Try before you buy’ seems to be the watchword, especially when it’s a rollout of 20 or 30 classrooms.

What technologies is it that teaching staff are asking for at the moment, and does that tally up with what students want? The trend, which is being repeated worldwide, is the switch from interactive whiteboards to interactive flat panels. This is down a variety of factors – the reduction of the cost of interactive panels, a lower TCO, higher brightness of the image, and ease of maintenance. Whilst this is only happening in classrooms, as flat panels aren’t big enough for lecture theatres, we are seeing technological shifts there too. Projection is still king in the bigger 100 or 200-seater theaters, but educators are asking for laser projection instead of lamp-based projection systems, again because of falling costs (of laser units) and lower >

SCREENSAVER

“A system is only perfect if it’s tailored to a client’s needs – and if it’s intuitive to use.”

SEBASTIAN KIRSCH
Media Technology Specialist

ASE
DOING BETTER

< TCO. One significant product making waves in higher education is lecture capture. “To have the ability to share the lecture in advance or post-event is huge,” says Dresden. “AV technology does and will play an important part as students and lecturers demand this type of service.” Lecture capture, and the model of a flipped classroom has been growing in popularity for the last two to three years, and the product offerings have reflected that, by growing in size. It is no longer a market dominated by purely hardware-based systems. “In most cases universities that have adopted these products are using the recorded material as ‘student review’ type recordings where those that attended the lecture can review the sessions afterwards,” says Patel.

BYOD was a phenomenon that caught many university AV managers on the hop when it first emerged three to four years ago. So where are we now in higher education with BYOD? Things have progressed, but it still involves a huge amount of work for any integrator to complete a full BYOD implementation. “We have to find a workaround for the compatibility issues, with things like scalers, switchers and dongles,” says Abdulla Alansari from Techno Q. Patel from Snelling has had similar difficulties regarding BYOD: “The biggest challenge has been all of the different formats, standards, operating systems (IOS, Android, Windows

etc), not to mention the multitude of different connectors that have evolved over the release of new generation equipment.” Once this problem has been resolved it morphs into another one says Patel. “You then have to overcome the limitations of the device in what you can actually output from the device itself, but providing users know these limitations and know how to work around them then everyone is happy.”

A trend which has appeared in the corporate sector which is now making its way into higher education is the rise of huddle spaces. Whilst the corporate sector is using them to replace traditional meeting rooms, in education they are being used for student collaboration. And typically they are installed near places where students congregate – libraries, cafeterias etc and are for three to five students at a time. Technology so far seems to be limited to a flat panel on the end of a desk with some connectivity below, or perhaps a wireless presentation system but there are signs

huddle spaces are evolving. A few are being fitted with video conferencing so students can talk to lecturers (or other students) on different campuses (sometimes in different countries). Another example comes from Reflex, who has recently installed a visualiser built into the ceiling of a huddle space, so users can put content on the shared flat panel. It’s also a trend that’s being seen all over the world, the latest example of this is in the Middle East, where the Qatar Foundation has built a student centre with huddle spaces in it. “After lecture time they can go there and do their own group study or brainstorming sessions. It’s not operated by professors, the students do it themselves,” says Al Jaidah.

Overall the future looks pretty healthy around the globe for those working in education. Dresden says: “AV is now part of the furniture. It is a means of communication, no different to a computer or the telephone, it’s a natural communication tool not just a ‘nice to have.’”

“To have the ability to share the lecture in advance or post-event is huge.”
 - Roland Dresden, Reflex

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