In the last two years a series of high-profile manufacturers have launched a range of competing collaboration tools. Paul Milligan looks at what these tools can do for users, and how the products differ from each other.

Wireless sharing

In one of the most high-profile product launches in recent years, Barco unveiled ClickShare in April 2012, which saw the established Belgian manufacturer enter a new product category – collaboration, for the first time. Since then the success of the wireless presentation system, which lets users take control of the meeting room display via a small button attached to a laptop/PC via USB, has unsurprisingly caught the attention of its rivals, who have all now launched a range of competing collaboration tools. Three big names entered the fore at InfoComm 2013, with Crestron launching AirMedia, Christie launching Brio and AMX launching Enzo. The latest two products to hit this segment have come from Kramer (Via) and Extron (ShareLink 200), which were both launched in October 2014.

This product segment has also filled up quickly because in the last two years collaboration has become the hottest marketing buzzword in AV. There is no doubt there is an appetite for these types of systems, Kramer told InAVate it had manufactured 10 times more of its Via system in its initial batch than any other product in its entire history, and that still wasn't enough to meet the demand.

All manner of products, some clearly relevant to collaboration, and some clearly not, are now in the market, which has led to a lot of end user confusion as to what it is they can do. Some of the products talked about here will let different users work together, making changes to the same file, whilst others are more akin to wireless presentation devices, which won't let you pass work around, instead letting you take control of the master screen in the meeting space. The problem users have is that all the manufacturers call their products collaboration systems, and to a degree they all are, it's just a question of how much collaboration do you actually want to do in the meeting? The six collaboration tools we are looking at here are aimed squarely at use in meeting spaces, from use in the education and corporate sectors primarily.

Considering these products didn't even exist three years ago, what is the real benefit to them? Banishing wires in the meeting room for a start. At the very basic level, all of the products allow users to quickly and easily get their content onto the screen of a meeting room. The clever part of this is that it is done wirelessly, with no need for messy, tangled wires cluttering up the meeting room table. "It removes one of the things that stopped people participating in meetings, in the sense that it is always dangerous to ask for the cable from somebody in a meeting room," says Lieven Bertier, global marketing manager collaboration, Barco.

Wireless

The products have the added bonus that this wireless transfer can be done via a myriad of devices (laptops, MacBooks, tablets, smartphones) over a range of platforms (Windows, IOS, Android).

"The feedback we got from customers was that they wanted one product that would service both sides of the device equation (IOS/Android)," said Rainer Stiehl, vice president of marketing Europe, Extron.

The majority of the devices create a wireless access point, housed in a base unit which is normally placed under the desk or in the corner of the room (or even in a rack unit), from which the devices communicate. To connect to the meeting in ClickShare users need to >

< download the app on their smartphone, tablet or plug in a ClickShare button into a USB port, which starts an executable file. The Creston system doesn't need any hardware in the room itself, so users connect via an app, or launch an executable file on the desktop, which connects to the device which is housed on the network.

Key to success

With so many competing systems, what are the keys to success in this particular market? "Usability is essential," says Bertier, who referenced recent Wainhouse research which said 'we are now looking at an AV industry that has been primarily focused on complexity of features, but for the first time is now turning to ease of use.'

"With some of the products, whilst the technology is very sound, the users need to have some network knowledge to use it," says Paul Krizan, product manager Enzo, at AMX. "The fundamental design principal for us was that we couldn't make something that was cumbersome, otherwise it was defeating the purpose of making it easy to get your content on the screen."

Another big key to success is that the IT team needs to have a level of comfort with the product, and that comes down to security (more on that point later) and control/monitoring aspects. Krizan was also keen to point out Enzo wasn't just designed for ease of use for end users, but also ease of install for integrators. "As much as possible we have tried to make it easy for them. All the setup and configuration is done on screen, and we have tried to use the same defaults out of the box."

Cheap alternatives

With professional AV products comes a similar professional level of pricing, so some users have been tempted to go with cheaper alternatives such as Google Chromecast and Apple TV. Costing €30 and €100 respectively, they are undoubtedly very attractive from a financial point of view, but that cost saving comes with big issues when applied to a corporate or educational setting. Neta Lempert, the VP of digital business development at Kramer highlights two such issues with low-cost consumer-based collaboration tools: "On Apple TV and Chromecast you can only share your screen one at a time, no more. They also give you access to entertainment content, but most corporate environments don't want you to have entertainment content in meeting rooms, they want meeting rooms for meetings, to get results."

Rainer Stiehl was another to point out the

Barco ClickShare

Extron Sharelink 200

AMX Enzo

Crestron AirMedia

Kramer Via

Christie Brio

shortcomings of Chromecast and Apple TV: "A lot of the low-end, low-cost products are geared towards a consumer application, where you might only have one or two installed in an apartment. When you scale that up in a corporate or education environment, where you have 50 or 100 rooms across a campus, then you have to pay far closer attention to the networking side of things."

BYOD

As more people are becoming accustomed to working wirelessly at home with systems such as Chromecast and Apple TV, they are coming into the workplace and expecting the same kind of ease. In addition, the rise of BYOD has caught many organisations on the hop with the sheer speed of implementation, but collaboration tools such as the ones we are discussing here, have helped to meet the problem in the short-term, and also address the desire for wireless meeting room systems. Several of the systems (ClickShare and Enzo) are using

MirrorOp software (which supports IOS and Android) to achieve this, others (Brio) use MiraCast.

Each of the systems we are looking at has its own limitations of the number of users connected. Where this gets complicated is when there are several varieties of products, aimed at different needs/budgets. ClickShare can connect 64 users (CSC product) or 8 (CSM product), Enzo and AirMedia can connect up to 32 simultaneous users, Via Connect and Via Collage can connect more than 250 users (network infrastructure dependent), Sharelink 200 can connect 64 different participants, and Brio can connect five users at the same time.

Security

With up to 250 users connecting to any one session using these devices, security is a massive issue for any IT team looking at implementing a collaboration system. How secure is the content during the meeting? Does the session leave a footprint behind it on the >

< network, which could then be accessed? These are all questions an IT team will want answered. The use of additional software downloads in order to join a session can sometimes lead organisations to blocking their usage, but manufacturers like Barco are now looking at ways around that situation. It is bringing out a firmware update towards the end of this year, which allows ClickShare to be integrated into the company network. This means an FM or IT manager can disable the wireless network that is created by the ClickShare base unit and instead have the ClickShare buttons and apps communicate over the company's existing Wi-Fi infrastructure. "That is a big advantage because you are then governing the security principals that are being used. We will offer the users choice if they want standalone or island mode or whether they want to integrate it into their company's network," said Stiehl.

Many of the systems have an integrated wireless access point which allows the IT teams to install the units as a standalone device, away from the corporate network. "We have various modes of Wi-Fi encryption, including corporate-grade encryption," said Stiehl. "If that is enabled, the IT team can connect the Sharelink 200 to the network with the encryption in place. We also have a gatekeeper function, so if users are connected through the corporate network the IT staff can decide whether those users get access to just Sharelink 200 or the internet or open it up and give them access to the entire IT network. You can make it as isolated as you want or as open as you want." This approach is also being taken by others, including Kramer: "We know that Wi-Fi is a vulnerable technology, and being an Israeli company means we have to apply security on anything that goes over Wi-Fi," said Lempert. As a result the Via systems offer security-grade 1024-bit digital encryption (as a comparision, ClickShare offers 128-bit encryption).

The systems are careful not to leave any footprint behind, to stop any unauthorised viewing/downloading of the session material. Once the ClickShare button is ejected from the USB port the executable file stops working, leaving nothing behind, AirMedia works in exactly the same way. At the end of an Enzo session a purge function occurs, which changes the MirrorOp passcode, and deletes any content downloaded to it. But what if your meeting lasts for several days? Would you not want to keep that data alive? The Via Collage system gets round this by storing content on the Via itself (via the SDD drive) or placing it onto a personal cloud service. Another option is to have the finished material placed into a Dropbox account (Sharelink 200), again using the cloud.

Resolutions

The ways these systems handle different screen resolutions and the ability to play audio is roughly the same. Most systems have in-built scaling to match whatever the content of the meeting room screen is, to the content being sent to it, whether its had to have been downscaled or upscaled on the way there. All the systems are capable of showing a single screen at once or splitting into 2x2 formation showing four users screens.

In the majority of systems the person in control of the meeting has control of the audio too, in order to avoid any sonic clashes between users. In the Sharelink 200 system when the screen is split into 2x2, whoever controls screen 1 (top left box of the 2x2) controls the audio. The Via system doesn't just mirror the screen to play the audio, but it streams the audio along with the video, so it can support stereo left and stereo right channels, and provide up to 7.1 audio.

There is undeniably a thirst for collaboration systems in meetings room, and this market segment is only going to grow over the next two years. The difficult part for integrators and end users will be to wade through the glossy marketing material to find out which one fits the bill. ∿