AV-over-IP Solutions Set to Elevate Conference Room Collaboration

mimo

Remote work is a more integral part of the enterprise landscape than ever before, and school districts, higher education institutions, corporate offices, events and more are relying on the power of collaboration over great distances.

Since this shift toward remote and hybrid communication is likely a permanent fixture of future work, it will require more robust and flexible meeting spaces. The best companies are already looking for ways to bring those spaces to life and ensure their solutions are prepared to foster elevated engagement and collaboration, no matter what lies ahead.

Thankfully, a revolutionary, first-of-its-kind conference room solution is empowering organizations to do just that, all while cutting costs and maximizing productivity.

Here we'll delve into what AV-over-IP technology is, the benefits, why it has not been considered in UCC spaces previously, and how it can serve as an ideal solution for the rapidly shifting and evolving conference room environment.

What is AV-over-IP?

AV-over-IP technology enables the transmission of audio and video information over a network through standard network equipment. It is not a new technology – in fact, the consumer video market has leveraged it for some time to deliver content to consumers over IP networks. In fact it's already utilized daily in most homes--think Netflix or YouTube.

It is also not entirely new to the corporate space, where AV and IT have been converging to help organizations keep pace with emerging business needs.

However, conference rooms, board rooms and huddle spaces are still untouched. But why? Traditional video conferencing solutions installed in meeting environments generally feature human interface control panels that want to be many, many feet away from a dedicated room PC, which results in a more complex installation and the classic hassle of excessive cabling.

Traditional PC interfaces like USB and HDMI were developed for short range, large cable bend radius, and are limited by the length of transmission, therefore generally requiring expensive and unreliable active extenders. Plus, these cables cannot be terminated by an IT technician leading to excess cable length piled up and hidden somewhere.

This all adds up to a more expensive, less reliable, hassle-inducing solution that also fails to achieve the flexibility needed to keep pace with innovation. However, it's a solution that's been implemented for many years and has become the status quo. But clearly there's room for innovation and improvement.

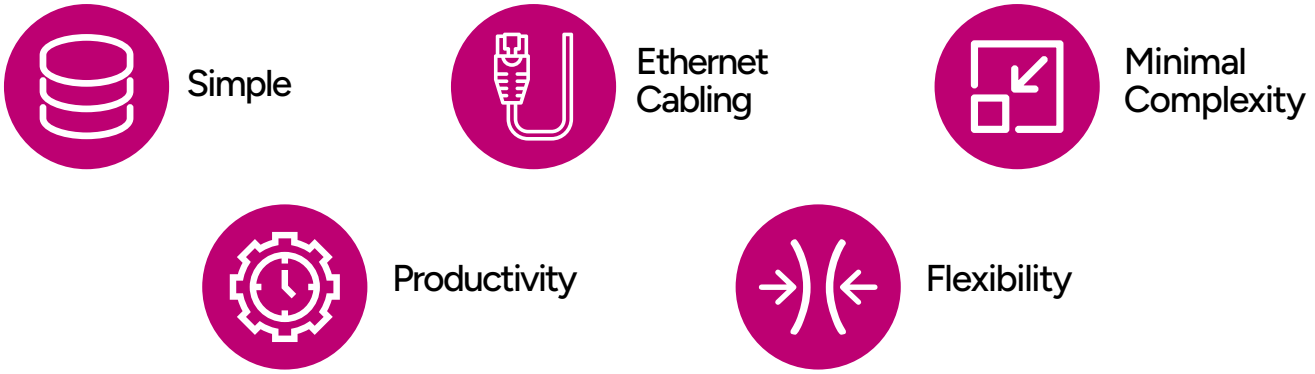
Imagine a tabletop control panel that connects over a single Cat5e (Ethernet) cable and provides not only the video for touch control, but power, communication for touch interaction, USB connectivity and HDMI capture for remote sharing.

This is the ultimate UCC solution, connected over a simple, inexpensive interface that every IT professional knows. This solution would allow for the elimination of installation complexity, cut costs, maintain productivity and performance, and ensure flexibility ready to serve and meeting space.

That's powerful and has potential to completely revolutionize the conference room space.

Benefits of AV-over-IP Technology in Conference Room Setups

AV-over-IP has the potential to be revolutionary in elevating meeting spaces around the globe. Mimo has recently announced the Mimo Myst Link, which provides the key benefits mentioned in the ultimate solution:



Newly available AV-over-IP solutions offer companies more flexibility in designing their AV projects and reduce the amount of equipment needed in virtual conference room setups. This technology is inexpensive to install and simple for IT teams to maintain.

Without all the unreliable cables, and by utilizing only proven and positive locking Ethernet technology, there will be less IT support needed, lowering costs dramatically. Another benefit of newly introduced AV-over-IP solutions are that they have available expansion ports for other devices. Imagine the benefits of being able to

connect a USB based speaker/mic through the IP-based touch controller, and it then being able to do all the required translation needed, and provide all the necessary power. With this solution, the room only has one highly reliable connection from the dedicated PC to the table. It should always be just that simple.

As a result, organizations can maximize the amount of usable space in a conference room, with a much more versatile and moveable furniture and room arrangement. They can also boost productivity by eliminating the need to troubleshoot complicated wiring situations and take advantage of a better overall AV experience.

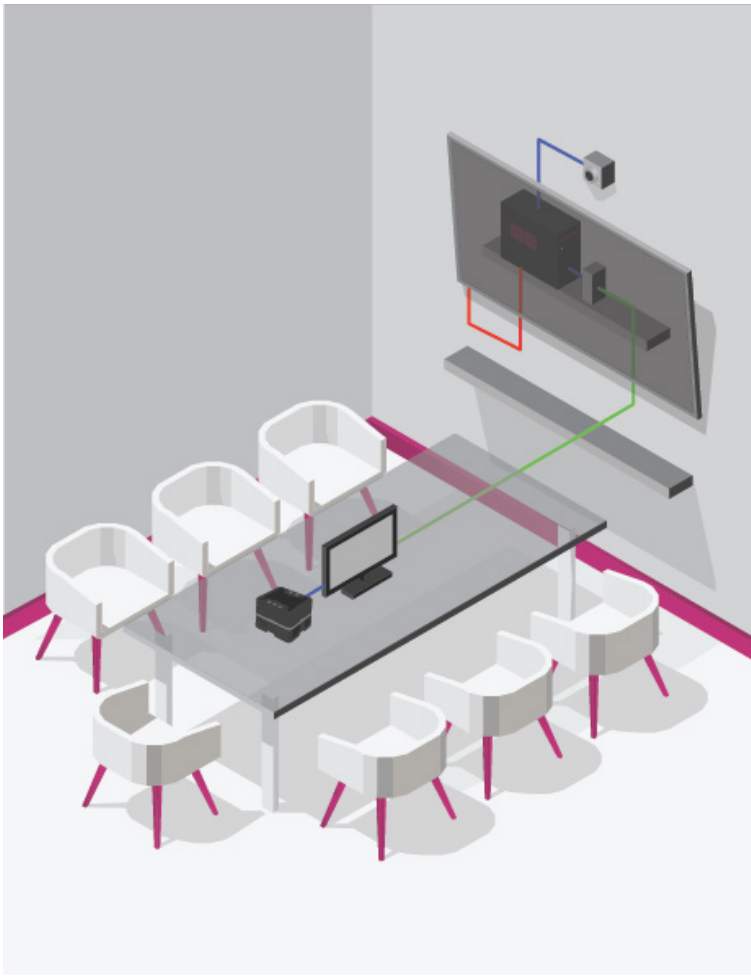
Finally, integrating AV-over-IP allows companies to considerably cut costs on AV equipment and maintenance and it also builds the foundation for a much more scalable AV setup. This ensures any organization is ready to face the future of collaboration, no matter what it holds. No longer being limited by the location of the table, because tableside power is no longer required, future flexibility in UCC spaces is endless.

Common Misconceptions Surrounding the Use of AV-over-IP in UCC Spaces

These benefits are achievable with the recently announced Mimo Myst Link, though some common misunderstandings and misconceptions still exist around the use of the technology in collaborative meeting spaces due to a lack of previous solutions in these environments.

First, some believe that AV-over-IP solutions don't have all the features necessary to truly be successful in replacing other conference room solutions. While it's true that AV-over-IP prior generation solutions don't implement these features – such as HDMI capture, human detection and interactive touch – today, they have been implemented.

This is the major leap forward that makes AV-over-IP viable for UCC. Certification from meeting solution providers such as Teams, Zoom, and Meet have requirements that have never been implemented in an AV-over-IP product, but now they have, which allows companies to run on whatever meeting software they're already accustomed to.



AV-over-IP solutions are also often considered cost-prohibitive for UCC, which is simply not the case with new solutions. This is because cost can be reduced first and foremost by scale, and the elimination of custom programming work, complex installation, equipment costs and constant maintenance means that the overall cost of ownership is lower than that of traditional, "cheaper" solutions.

In addition, because a conference space is more than just the equipment in it, other costs must be considered when thinking through long-term costs in addition to the installation costs. These costs include, but are not limited to, cables (passive and active), active extenders, installation labor, hubs, brackets, and custom fabrication. For example, just the costs associated with an electrician installing power at the table can be prohibitive. Not only does it almost permanently define where the table must be, but it could require some major modifications and channeling through walls and floors to make it happen. Plus, care must be taken with all the cables as they can be very sensitive and fragile. Compare that to the cost of cheap and ubiquitous Cat5e cabling. Every IT person knows how to install and terminate the cable. The low voltage cable channels are likely installed in the building already. It is not fragile and has decades of reliable installation. It is flexible and can turn tight bends. And it is a reliable communication channel over hundreds of feet. This alone can save tens of thousands of dollars per room installed.

Finally, some might believe that AV-over-IP requires an entirely new system architecture or that "new" technology can be unreliable, meaning it's risky to leverage in critical meeting spaces. In fact, AV-over-IP solutions can be designed in such a way that PCs recognize them as regular displays, and the technology making it all happen isn't "new" – it's simply a new application of a proven solution.

Ethernet connectivity technology has been around for decades. If the product is implemented in such a way that the PC is blind to the Ethernet connection, and only sees what it already understands, then no custom implementation or new architecture is required.

Properly implemented, the only thing an installer or integrator would have to change is the cable between the dedicated room PC and the conference table. That is easy to implement.

What Does AV-over-IP Need to Bring to the Table to Succeed?

There are a variety of conditions that need to be met before an AV-over-IP solution could be considered a success in a conference room environment. This is why there hasn't been AV-over-IP for UCC until now. No product in the past has brought together the technological advances that are essential to make this technology succeed in the conference room space.

To allow for HDMI capture, the solution would need to enable two-way video transmission over a singular cable, and do so in a visually lossless way. Why? Because first and foremost the solution is a touch controller and therefore must look the way the video conferencing solution provider intended by rendering the User Interface touch buttons, volume control, camera control, etc. Second, with HDMI capture the solution cannot predict what will need to be sent from a user's laptop to the online meeting.

It could be a high frame rate video, where lossy video is probably acceptable. Besides, that video is going to be compressed before it is sent over the internet to other participants. But it could also be a low frame spreadsheet, where things do not change quickly, but every pixel makes the difference between legibility and uselessness.

Further, the ideal AV-over-IP conference room solution should exhibit low enough levels of latency that they do not affect the end user experience. To the user, reaction to touch should feel as instantaneous as it is for a 'regular' display. Lastly, the electronics for decoding must reside inside the touch display in order to maximize flexibility and ensure we aren't recreating a major problem AV-over-IP solves by having extra cables and boxes.

Lastly, all of these features and considerations must enhance the ROI and experience for the end user, not creating friction and be extremely intuitive to use.

Transform Your Conference Room Experience with Mimo

Touchscreen displays and other cutting-edge technology can make conference room meetings run more smoothly and boost engagement, but the additional wiring that often comes with these devices can make them a hassle to install and use. However, all of the benefits mentioned in this white paper can be achieved with the revolutionary Mimo Myst Link: The first Ethernet-connected conference room display with capture.

This new 10.1" touchscreen solution not only solves the aforementioned problems but simplifies and elevates meeting spaces, introducing a sleek, durable, and reliable collaboration solution that enables unprecedented flexibility and ease-of-use that has never existed before. It provides the ideal solution to many problems that take place in the conference room space—eliminating the need for extraneous cords or complicated IT, and takes into account the evolving conference room, which requires more flexibility than ever before.

As the most sophisticated and elegant Mimo display to-date, the Mimo Myst Link allows for affordably and seamlessly connecting Ethernet cabling and provides the ultimate in adaptability, enhancing experiences and maximizing usable space while increasing productivity in conference room environments.

Contact Mimo Today

Contact us today to learn how we can bring your company's conference room experience into the modern era.

Appendix:

ROOM TYPE	PRODUCT	TRADITIONAL	MYST LINK	COMMENTS
1-2 Person Phone Booth Assumes everything is installed very close. Only a few feet between all components Mimo Myst Savings 36.5% over 3 years	Purchase Cost	$499	$999	Mimo also makes 'traditional' style displays such as the Myst Capture for these installations. Assume 1 hr/mo for IT support in traditional installation
	Cables & Hubs	—	—	
	Power at Table	—	—	
	Extenders	—	—	
	Cable Install	$50	$25	
	Total Installed	$549	$1,024	
	Cable Replacement	$25	$25	HDMI cable break each year
	IT Support (/mo)	$75	$38	@ $75/hr
	Total 3-year cost	$3,274	$2,399	

ROOM TYPE	PRODUCT	TRADITIONAL	MYST LINK	COMMENTS
2-4 Person Huddle Space Assumes small table, USB active extender for display, power required at table Mimo Myst Savings 85.5% over 3 years	Purchase Cost	$499	$999	Power at table required to plug in display. USB 3.0 active extension cable and USB hub required at table. Assume 1.5 hr/mo IT support because of unreliable active extension
	Cables & Hubs	$250	—	
	Power at Table	$250	—	
	Extenders	—	—	
	Cable Install	$150	$25	
	Total Installed	$1,149	$1,024	
	Cable Replacement	$600	$25	Active and HDMI cable break each year
	IT Support (/mo)	$75	$38	@ $75/hr
	Total 3-year cost	$4,449	$2,399	

ROOM TYPE	PRODUCT	TRADITIONAL	MYST LINK	COMMENTS
4-8 Person Conference Room Assumes medium table, USB for display and speaker/mic and HDMI active extender, power required at table Mimo Myst Savings 138% over 3 years	Purchase Cost	$499	$999	Added requirement of HDMI active extender because of distance. Installation of both HDMI and USB extender cables. Electrician for table power install could run into the thousands
	Cables & Hubs	$350	—	
	Power at Table	$500	—	
	Extenders	$250	—	
	Cable Install	$300	$25	
	Total Installed	$1,899	$1,024	
	Cable Replacement	$1,100	$25	Active and HDMI cable break each year
	IT Support (/mo)	$75	$38	@ $75/hr
	Total 3-year cost	$5,699	$2,399	

ROOM TYPE	PRODUCT	TRADITIONAL	MYST LINK	COMMENTS
8-16 Person Meeting Room Assumes large table, display requires CATx extender, speaker/mic and HDMI active extender, power required at table Mimo Myst Savings 170% over 3 years	Purchase Cost	$499	$999	Add CATx USB Active extension because of USB distance beyond active cable length
	Cables & Hubs	$350	—	
	Power at Table	$500	—	
	Extenders	$1,250	—	
	Cable Install	$250	$50	
	Total Installed	$2,849	$1,024	
	Cable Replacement	$1,000	$25	Active and HDMI cable break each year
	IT Support (/mo)	$75	$38	@ $75/hr
	Total 3-year cost	$6,549	$2,424	

ROOM TYPE	PRODUCT	TRADITIONAL	MYST LINK	COMMENTS
16+ Person Space Assumes large space requiring extensive cabling and 2 touch controller Mimo Myst Savings 261% over 3 years	Purchase Cost	$998	$1,998	Assumes use of 2 touch controllers in the room because of the size of the space. Twice the unreliable components require twice the IT support
	Cables & Hubs	$450	—	
	Power at Table	$1,000	—	
	Extenders	$2,500	—	
	Cable Install	$300	$100	
	Total Installed	$5,448	$2,098	
	Cable Replacement	$1,700	$25	Active and HDMI cable break each year
	IT Support (/mo)	$150	$38	@ $75/hr
	Total 3-year cost	$12,548	$3,473	