

Five-Star Copenhagen Hotel Makes HDBaseT Shine for Meeting Spaces



Danish integrator brings unity to seven conference rooms inside new five-star hotel

The seemingly endless discourse around AV over IP sometimes gives the impression that point-to-point-based systems are nearing obsolescence. When we consider the pure benefits that AV over IP brings to the design and operation of AV systems, they tend to emphasize the notion that the legacy systems era is quickly fading.

While AV over IP is a gamechanger when it comes to flexible and scalable system deployments, the fact is that legacy matrix systems remain valuable for AV integrators and end users worldwide. Hotels represent one sector where these systems are actively specified given the very specific signal counts that are assigned to ballrooms and event spaces. And with the right planning and hardware, there can still be room for growth.

1stAv is a Danish audiovisual technology integrator that recently completed an HDBaseT™ system installation at a newly designed five-star Copenhagen hotel that addresses today's AV requirements while adding capacity for future needs. Located beside the harbor in downtown Copenhagen, the NH Collection Copenhagen building was originally designed by Palle Suenson, a modernist architect, in the 1950s. Prior to becoming a premium hotel, it served as the headquarters for the B&W (Burmeister & Wain) shipyard.

1stAv was brought in to specify and build a modern AV system to serve seven meeting and events spaces at the hotel. These facilities are used for everything from cocktail parties and weddings, to conferences, and seat anywhere from 12 up to 325 people.

Two of the spaces are divisible to accommodate larger meetings and events, which meant specifying a mix of products to accommodate varying room sizes.

Thomas Petersen, CTO at 1stAv, worked closely with the team at Danish AV distributor IMAGO SONAS to determine



the video and audio products best suited for the project. "IMAGO SONAS was instrumental in bringing the right products to this job. They recommended and supplied everything outside of some monitors that we sourced elsewhere," said Thomas Peterson, CTO at 1stAV. "But they were more than just a dealer. They worked very closely with our system programmers, which was very helpful when it came to bringing our core video products together with our audio system."

For this installation, IMAGO SONAS recommended Atlona as the core video supplier, along with Vivitek projectors and LG displays for video content presentation. The audio side of the installation Audio-Technica microphones for in-room audio acquisition with additional advanced audio technology incorporated to optimize speech intelligibility.

A Blended World of AV and IT

While "AV" is a clear part of the company's branding, 1stAv also operates a separate IT department. "This is clearly a good thing for 1stAv and our customers, as AV and IT have converged very closely together," said Petersen. "IT requirements are of course simple when it comes to HDBaseT, so our network infrastructure tasks were limited to the field cabling structure for the HDBaseT products."

The IT team also designed and deployed a local IP network with a VLAN dedicated to controlling and managing AV devices. The IP network is anchored by a Fortinet FS-248D-FPOE Layer 2 managed switch for secure communication with the hotel network, as well as distribution of AV control signals.

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An electrical contractor was brought in to install the cabling infrastructure, so by the time Petersen came on-site there was a sensible foundation in place for AV.

"I was able to come right in and hang my 4K projectors and displays, and install my HDBaseT wallplates," he said. "The installation points were prepared in advance, and it was mainly just connecting the cables. I also brought in my complete equipment rack that I built out in our warehouse and plugged in all my switching and distribution components. From there we went into programming mode, which went smoothly with help from our friends at IMAGO SONAS.

Equipping AV for the Meeting and Events Spaces

The equipment rack that Petersen built serves as the core of the AV operations. The rack integrates seven Atlona HDBaseT matrix switchers for managing video inside meeting and divisible event spaces, as well as Audio-Technica AEW-DA55C devices.

The AEW-DA55C devices, which are UHF active unity-gain antenna distribution systems that provide 1x4 RF channels for Audio-Technica ATW-3211EE1 wireless bodypack systems for speech in each conference room. Audac ARU208 eight-channel digital relay feed various audio sources to the same meeting spaces as well as reception areas, bars and restrooms.

The Atlona gear is responsible for supporting most of the visual presentation needs in each room. Five Atlona switchers were installed in the racks: Three AT-UHD-SW-5000ED devices, which are 5x1 HDMI and HDBaseT switchers serving dedicated conference rooms (Fionia, Thor and Viking); and two 8x2 AT-UHD-CLSO-824 matrix switchers that serve the divisible spaces.

The divisible spaces technically identify as four rooms (Bornholm, Dania, Skagen and Hjejlen). All seven rooms include Atlona AT-OME-TX21-WP-E wallplates to transmit signals from HDMI or USB-C sources. These wallplates are from Atlona's new generation of Omega™ presentation and collaboration solutions.

"In Denmark, most end users still ask for HDMI," said Petersen. "What is interesting about the Omega wallplates is that the system is futureproofed for USB-C, which is an emerging connectivity option here that we expect will catch on."

Petersen installed the Omega wallplates in floor boxes for the divisible rooms. For the Fionia, Thor and Viking rooms, standard wall installations were used.

"You generally want to have the wallplate close to the screen, so that is what we did in the three conference rooms with the LG displays," he said. "For the Vivitek projectors, there were floorboxes beneath nearby where presenters will stand. It was just a perfect spot to plug a laptop straight into the Omega wallplate."

The Omega wallplates transmit signals over CAT 6 cable to their respective Atlona switchers, which then feed the projectors and displays, also over CAT 6 cable.

"I like to have no converter boxes in my racks, and the switchers need to have smart features like auto-switching between inputs to ensure smooth presentations," said Petersen. "Both Atlona switchers provide these efficiencies for the end user. The CLSO just gives me nearly twice the capacity, which is why they are used for the divisible spaces."

Petersen added Zero Ohm Renegade systems improve audio intelligibility inside each room. "It is a high-density installation, and that can compromise the high and the lows when you are dealing with hotel walls," said Petersen. "The Zero Ohm Renegade systems ensure complete clarity."




Room to Grow

While HDBaseT switchers have fixed signal counts, Petersen confirms that there are free HDMI inputs in each Atlona switcher to accommodate additional sources moving forward. "I don't think that will be necessary for the first two years, but as technology evolves, they will have the capacity to add new systems and sources to every room."

Petersen states that the video system is fully 4K-capable (though mostly 1080p video is used today), and that the hotel plans to roll out an eighth meeting and events space in the future. Thanks to its existing AV infrastructure, expanding the system will be straightforward.

"They have a solid base to build upon," he says. "This system is fully capable of meeting their current needs and will easily scale to meet their future needs as well."

SELECT FEATURED PRODUCTS

MODEL	DESCRIPTION	
<u>AT-UHD-CLSO-824</u>	The Atlona AT-UHD-CLSO-824 is a 4K/UHD 8x2 matrix switcher with dual, HDBaseT and mirrored HDMI outputs for 4K/UHD @ 60Hz signals.	
<u>AT-UHD-SW5000ED</u>	The Atlona AT-UHD-SW-5000ED is a 5x1 switcher with two HDBaseT inputs, three HDMI inputs, mirrored HDMI and HDBaseT outputs, balanced audio outputs, automatic input selection, and automatic display control capability.	
<u>AT-OME-TX21-WP-E</u>	The Atlona AT-OME-TX21-WP-E is a 2x1 switcher and HDBaseT transmitter with HDMI and USB-C inputs. It is designed for commercial installations in Europe.	
<u>AT-HDR-CAT-4ED</u>	The Atlona AT-HDR-CAT-4ED is a high dynamic range (HDR) distribution amplifier with one HDMI® input and four extended distance HDBaseT™ outputs.	