



Image Source: nuernbergmesse.de

RELIABLE AV-OVER-IP INFRASTRUCTURE WITH BROADCAST INTEGRATION

Market

Live Events and Entertainment

Country

Germany

Lightware Equipment Used in Project

TAURUS TPN Product Family

TAURUS TPN POWERS AV WORKFLOWS AT NÜRNBERGMESSE

Modern exhibition and event venues face the challenge of seamlessly integrating traditional conference technology, professional broadcast workflows and IP-based AV distribution, all while maintaining reliability and minimal latency.

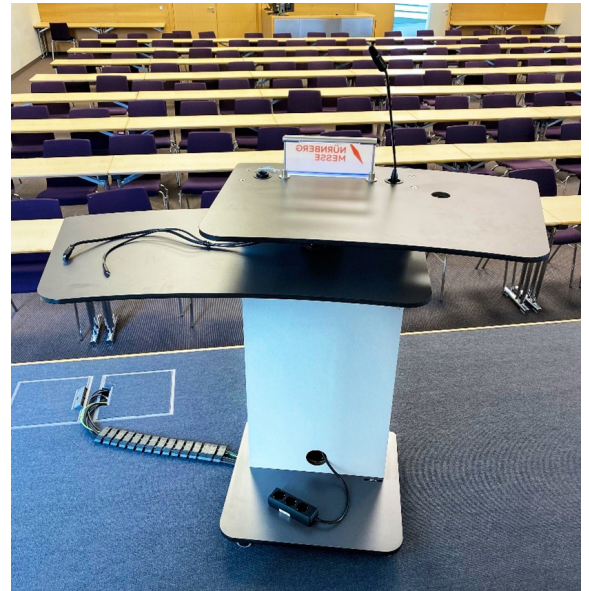
This was precisely the requirement for NürnbergMesse. They required an AV-over-IP solution that could flexibly combine live camera signals, video conferencing and room distribution with minimal delay and fail-safe backup. **The Lightware Taurus TPN system** was deployed, serving as a central platform to bring the different signal environments together.

WHEN BROADCAST MEETS IT

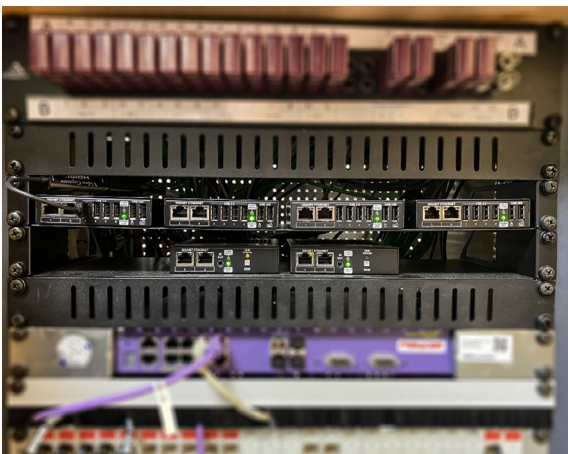
Professional camera crews regularly work in the event rooms at NürnbergMesse and rely on **SDI**, the established standard in the broadcast sector. However, presentations, displays and video conferences are increasingly being distributed via **IP-based AV infrastructures**.

The challenge was to connect these two worlds, which differ not only technically but also in their requirements. Broadcast signals must run synchronously and without delay, whilst IT and conference systems prioritize flexibility, routing and easy integration.

Providing very low latency was a priority because when working with live cameras or production applications, even minimal delays become immediately apparent. At the same time, an **SDI** redundancy system was required to ensure reliable operation even in the event of potential network issues.



THE SPECIFIC TASK



The goal was to simplify operations, so speakers can connect their laptop to the lectern and instantly start a video conference, as well as access the professional broadcast cameras in the room. To the speaker, these cameras appear as normal USB webcams, even though they technically originate from an SDI environment.

To achieve this, the SDI signals first had to be converted, then transmitted over the network, and finally made available again as a **USB 2.0 signal**. At the same time, the laptop's video signal had to be routed back to the control room and distributed from there to projectors and displays in the room – all without any noticeable delay and without adding to the complexity of operation.

This integration between SDI, USB, HDMI and AV-over-IP is something that many traditional systems struggle to achieve, often requiring several separate systems.

TAURUS TPN AS THE CENTRAL PLATFORM

With Taurus TPN, NürnbergMesse streamlines workflow by routing all signal paths via a single platform. The decisive factor was the virtually uncompressed AV-over-IP transmission, which minimizes latency, making it ideal for live productions.

Another key advantage lies in the integrated **USB transmission over the network**. This allows camera signals to be made available directly as USB devices and flexibly routed to the required endpoints. Multiple outputs per device allow for different signal paths simultaneously: whilst one output handles the AV-over-IP signal, another can be output in parallel via SDI for the redundancy system.

This creates an architecture in which presentation, video conferencing and broadcast technology work in unison.

STABILITY IN LIVE OPERATION

The Taurus TPN solution has now been in daily use for around nine months at NürnbergMesse. Reliability is crucial in trade fair and event venue settings, where any failures would be immediately apparent. Feedback has been incredibly positive, with no failures or errors reported. Plus, the planned redundancy system has not yet needed to be activated.

For users, this means a hassle-free experience where technology stays in the background and simply works.

FUTURE-PROOF INFRASTRUCTURE



With Taurus TPN, NürnbergMesse has implemented an AV infrastructure that combines the requirements of modern IP-based workflows with the reliability of classic broadcast technology. The solution integrates SDI cameras, USB conferencing technology and AV-over-IP distribution into a single platform, enabling low-latency signal transmission.

The result is a flexible, future-proof environment suitable for both conferences and professional productions, demonstrating how the worlds of broadcasting and IT can converge to meet the demands of modern venues.

For more information on Lightware, please visit lightware.com. Keep up with the latest news from Lightware on Facebook, Instagram, Twitter and LinkedIn.