RTL2 television benefits from Panasonic KAIROS for their remote productions

State-of-the-art technology for software and CPU/GPU processing delivers exceptional efficiency, flexibility and scalability for live video productions

Client - RTL2 Fernsehen GmbH & Co. KG
Location - Munich

Challenge
Carry out live video productions for customers and employees in the office building of RTLZWEI television.

Solution
As a native IP system, the IT/IP video-processing platform KAIROS from Panasonic is ideal for in-house remote video production as part of a full IP-based environment.

> KAIROS offers us nearly endless possibilities: Thanks to the platform, we can produce internal live productions remotely and even in higher video quality than we currently provide on air!"
>
> Dirk Kolditz, Head of Technology Operations at RTLZWEI

Fewer staff and internal productions that can't be carried out with studio guests or in front of an audience or as road shows: The coronavirus pandemic has had an enormous impact on all kinds of events at RTLZWEI television. "It was quickly clear to us that our internal productions and events - which we organise for business partners or our own employees but not for a broad television audience - would have to take place online and remotely," explains Dirk Kolditz, Head of Technology Operations at RTLZWEI. "This has been the only way for RLTZWEI to remain accessible in these times." These live productions are carried out using the IT/IP video-processing platform KAIROS from Panasonic.

A true all-rounder

Any technical solution for remote productions should, above all, work well with the existing infrastructure, Dirk Kolditz says, including, for example, the network in accordance with SMPTE ST 2110 standards. It should also be easy to integrate into the network, he adds. The device should be immediately ready to use and play content in UHD. In addition, RTLZWEI did not want to use traditional SDI technology. It didn't take long for RTLZWEI to make a decision: The IT/IP video-processing platform KAIROS from Panasonic fulfils all these criteria. As a native IP system, KAIROS is ideal for remote video production as part of a full IP-based environment. The platform is also easy to use with Panasonic cameras such as PTZ cameras, handhelds camcorders and AK-UC4000 4K live camera systems. The chosen AW-UE150 4K PTZ cameras can be positioned almost anywhere in the building.

The KAIROS CPU- and GPU-based hardware delivers exceptional performance and flexibility. The platform balances the entire processing load without imposing the configuration limitations of standard hardware-based systems. The solution also offers numerous input, output and operating options for efficiently producing live videos while the Kairos KC1000 hardware in use leaves enough power reserves for future applications.

Dirk Kolditz and his colleagues found KAIROS a compelling solution not only because the technology is future-proof and state-of-the-art, but also because KAIROS works well with the existing video infrastructure at RTLZWEI, including SMPTE ST 2110. Macros can be created for a variety of purposes, such as controlling the existing AW-UE150 4K PTZ cameras. Unlike conventional products, the platform is server-based and not limited to dedicated hardware. Multiviewer as well as clip and RAM player are already integrated. KAIROS offers unparalleled flexibility in formats, making it possible, for example, to overlay a HD graphic on UHD material. What's more, users benefit from the almost unlimited scalability of mix/effects (MEs) through the unlimited layers they can freely create and move with the graphical user interface (GUI). Unlike conventional image mixers, KAIROS has no restrictions on MEs or keys. Loris Saller, a media hub operator, really likes the scalability: "This is a very compelling feature. With earlier products, you were limited to the mixer layers and keyers that had been installed. Then you'd have a bottleneck if no layers were left. You'd have to think outside the box and often you'd fail because a keyer was missing. It's different with KAIROS: There are no limits."

Internal events as remote productions

RTLZWEI currently uses KAIROS for internal productions and events for business partners or its own employees. In addition to RTLZWEI TOWNHALL, these productions also include e.g., the road shows of the channel's advertising marketer, EL CARTEL MEDIA (ECM). KAIROS acts as an image mixer, controls the graphics, and streams in UHD. The ECM Road show was streamed to advertising customers and agencies. Between the presentations, reports and professionally designed, longer trailers are transmitted through KAIROS. Animated lower thirds and a permanent logo are also deployed - all controlled and managed through KAIROS. And it doesn't matter if the production takes place in a virtual studio with a green screen, in a real studio, or both: "All together, we had two studios and nine cameras in operation," Kolditz explains. "On top of that, there were the presentations which were fed directly to KAIROS over NDI." Such shows, despite their complexity, can be entirely produced with KAIROS.

KAIROS greatly improves the live production flow. According to Dirk Kolditz, a technology infrastructure had been in place, but there were no workflows for producing live events from the building: These were first drawn up on the basis of KAIROS. One example, cites Michael Kalvelage, Deputy Head of Technology Operations, is the use of graphics for chyrons: "With graphics, I used to have to consider if they'd been produced in UHD. Now I can use graphic elements in different formats that we deal with anyway because KAIROS automatically transmits them in UHD."

Outlook

A permanent studio is planned for the future. This would make remote productions outside of the RTLZWEI building possible. Until now, remote in-house productions called for a mobile studio to be set up and taken down, an effort entailing longer preparation times. A permanent studio where KAIROS will be used would also allow spontaneous productions. This will also enable usage of the relevant macros to realise automatic camera movements and to directly move contributions using KAIROS macros. Following standardised processes, events could then be realised without requiring additional technical staff: Only one sound technician and one camera and image operator would be necessary for a production.