

ÆUROSPORT

Cloud-based content production

empowered by Helmut4

Eurosport, Discovery, Inc.'s leading multi-sport brand., presents live and on-demand sports content in 75 markets, in 19 languages and across all screens. It has proactively reimaged its content production infrastructure to fit this uniquely complex, scaled, multi-market and multi-platform operation. The company therefore launched an ambitious technical transformation project with multiple partners and stakeholders, leading to the creation of a centralised, cloud-based, high-performance content production system that is agile, scalable and highly localised. MoovIT's Helmut4 project management tools are the key foundation in this infrastructure, conducting and coordinating the system's moving parts, and empowering Eurosport's creative teams to deliver consistently world-class live coverage and content.

About Eurosport

Eurosport is Europe's number one sports destination, serving fans with premium and locally relevant sports programming and content. Part of Discovery, Inc., the global leader in real-life entertainment, Eurosport is available in over 75 markets worldwide.

Eurosport connects fans with the world's greatest sports events. As the 'Home of the Olympic Games' in Europe*, Eurosport offers the ultimate sports experience to fans, reaching linear and digital audiences on a wide range of localised services. Fully localised content is delivered in markets throughout Europe and 19 languages, with 92 broadcasting channels based in Paris and 30 in other major markets such as Madrid (Spain), Milan (Italy) and Stockholm (Sweden). Put simply, Eurosport delivers content to a scale, level of localisation and range of technical complexity that is unmatched by any broadcaster or platform.

Eurosport's digital platforms and linear channels reach more than 250 million through its across 75 markets in Europe, Asia, Africa and the Middle East. Together with the Eurosport Player and Eurosport app, Eurosport.com allows users to watch Eurosport anytime online, on mobile and on tablet devices.

In the fast-paced world of live sports production, Eurosport is committed best serving fans however they choose to watch sport and innovating to redefine the viewer experience. This vision demands a dynamic, interactive, up-to-date approach to live production and broadcasting, plus delivery of world-class on-demand content on all platforms.

Over recent years, Eurosport took the bold step to embark upon one of the most significant technology capital investment project in the industry. This looked to develop more flexible infrastructure with greater ability to enable changes, scale and be flexible to support the complex delivery and dynamic on-screen experiences Eurosport manages every day.

The strategic decision was made to implement a truly disruptive concept. This would involve reworking the entire organisational process for its technical infrastructure, benefitting all areas of the enterprise.

To more efficiently deliver its vision, Eurosport's new approach needed to enable remote production, location and business flexibility, with a common content platform for linear and digital broadcasting, lower technology costs, and faster time-to-market for new products and services. With these goals in mind, Eurosport began its technology transformation to deliver greatly enhanced content and experiences to sports fans worldwide.

^{*}Excludes Russia. Eurosport will be an Official Broadcaster in France and the UK for Tokyo 2020.



The requirements: An ambitious transformation plan

Eurosport required a unique global media asset management (MAM) platform for live sport production that would allow it to share content across all markets and platforms in Europe. The goal was to centralise all Eurosport media assets in a single common system and share them via a unique web-based interface.

The aggressive project plan included a ground-breaking cloud deployment approach for traditional production kits, and a drive towards broadcast alignment with IT and cloud-based approaches.

The solution needed to meet daily production and post-production needs while providing direct access for all digital platforms. Due to the rapid turnaround times for live sports productions across both linear and digital, the objective was to reduce – or eliminate – transfers between systems. The solution needed to manage the ingest of all events, directly support various levels of editing, and handle the content required for playback across all channels. With digital product teams requiring direct access, the solution had to be cloud-compliant while delivering consistently high reliability and performance.

The dynamic, scalable and efficient content production platform needed to fulfil these demands while supporting the following tasks:

- Transition to 2110 and AES67 audio
- Leverage public cloud and cloud stack where possible
- Centralised playout
- Central MAM and content storage
- Resource management
- Event-based production
- Live data graphics
- Ability to provide customised feeds for all digital platforms and linear services
- Common access to all content with distributed operations: unrestricted digital growth, business flexibility, remote production



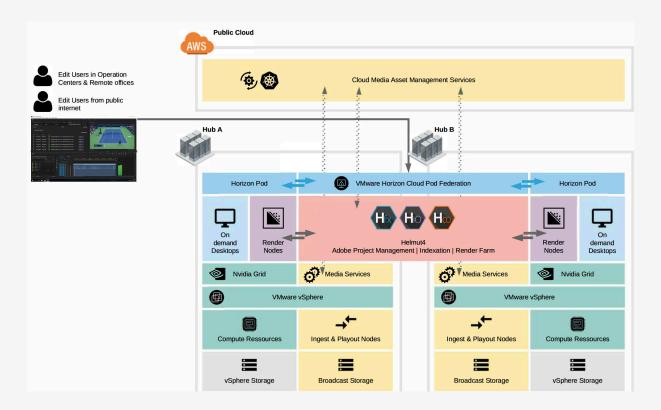
The solution:

An international infrastructure fit for a unique complex and scaled operation

Two data centres

Two technology hubs sit at the heart of the new international infrastructure, supporting all live production needs for all markets and products, including the master control room (MCR)/traffic, editing, post-production, event production and playout. The MCR operations and playout centre is sited in Paris and is being extended to London. 28 production control rooms (PCRs) will primarily be located in Paris, London and Stockholm and could be extended to local markets.

Production and office working processes are managed at two data centres in private clouds linked to the Discovery WAN (wide area network) via a dedicated high-speed network which interconnects all data centres and offices globally. This network is also used for video transmission in Europe. The minimum link bandwidth between remote offices is now 10 Gbps, with main offices such as Paris, London and Stockholm running dedicated protected links at 200 Gbps. Each data centre also runs a highly powerful storage cluster.





Virtualised environment

- VDI infrastructure / Horizon cloned desktops
- Adobe NLE
- Media asset management

Propelled by a VMware vSphere environment combined with VMware Horizon to offer virtual desktop infrastructure (VDI) capabilities, all workstations are virtualised into the private cloud. Horizon creates a unified layer across the data centres to serve the editing workstations via an infrastructure-as-a-service approach. Nvidia grid technology offers a virtual GPU for end-user workstations.

Media asset management

The MAM solutions handle all MAM layers, including the management of media access in Adobe Premiere Pro. Premiere Pro workstations are dynamically connected to the right data centre storage systems. The MAM system is based on a hybrid cloud solution with AWS and the two Eurosport data centres.

Post-production

Post-production is managed via the Adobe Creative Cloud suite. All editing desks and office workstations used by the on-site and remote post-production teams work with the centralised system. 200 users leverage Horizon for direct access to content, and can work rapidly and on clearly assigned tasks within their teams, even for large-scale productions.

This complex, flexible structure demands that project roles and individual tasks are precisely defined to avoid errors in administration, rights management, storage and archiving. Moreover, ingest, playout and data transfers must happen automatically and in the correct formats, and functions should be designed to allow quick and easy system scalability in line with production requirements. With Helmut4 project management software, Eurosport can meet these needs in full.

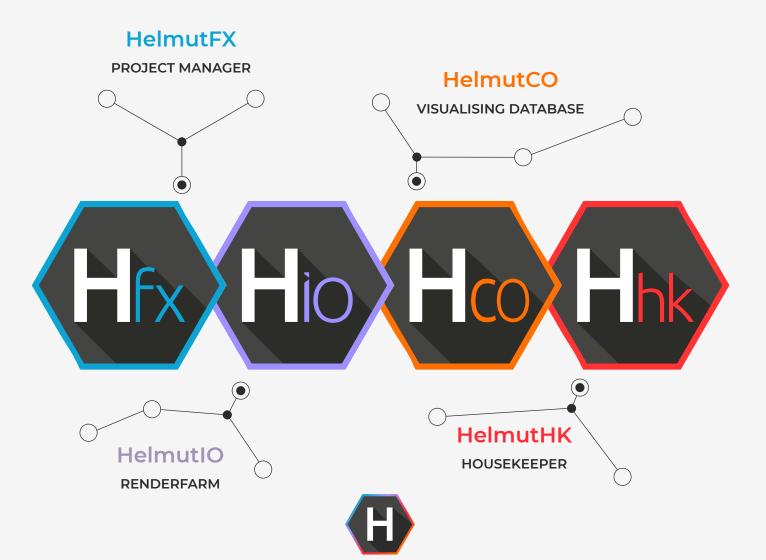




Project Management: Powered by Helmut4

Helmut4's tools have been developed by MoovIT in tandem with the Adobe team. Helmut4 was recently launched as a complete ecosystem, although components can be deployed individually. The project management tools can handle projects, templates, preferences and profiles (FX), control project-related assets from ingest to export (IO), organise storage systems (Housekeeper) and seamlessly integrate them into any MAM/PAM infrastructure (Cosmo). They also allow users to work from home or via the cloud while continuing to support conventional editing. Helmut4's modular licensing model allows it to be adapted to fit each customer's specific needs and any company size.

With its Streams Engine workflow configuration tool and corresponding APIs that can help meet evolving requirements, Helmut4 has become the tool of choice for Adobe users for professional editing, administration and organisation of post-production processes. Eurosport, through its technology transformation project as well as its sheer scale, range of platforms and unmatched level of localisation, is one of the ambitious partners challenging Helmut4's potential.



The benefits

Baptiste Rieublanc, Broadcast Engineer – ACS, Automation and Content Solutions at Eurosport, explains the benefits as follows:

"Helmut4 is the key software in this project as we operate in a virtual world with ondemand cloned workstations across multiple sites. Without it, we wouldn't be able to do what we do.

HelmutFX is used for all project management, project creation and editing tasks. The template management system lets us offer dedicated templates for each department, program and show. The Streams Engine manages all user settings in the background, creating a fully transparent layer for the user. FX perfectly synchronises user and workstation settings and ensures the high availability of projects via the dual data centre concept.

HelmutIO is used for render farm management across the two data centres. Render nodes with Adobe Media Encoder run as a fully virtual service, utilising Nvidia Grid for GPU rendering. The key benefit is that rendering jobs can be performed in the backend. The user picks up a sequence, selects profiles and the render is completed at the data centre. This simplifies workflows and saves the user from having to wait or think about encoding settings. Everything is centralised and managed by IO, avoiding human errors.

Cosmo is integral to the entire project. It is used for automated project indexation and supplies the MAM system database with all relevant project data. It guarantees asset consistency in the MAM system and Premiere Pro by clearly indexing projects and their related assets. This even happens during live editing, as the APIs of both systems communicate with each other. Cosmo recognises the links between assets and projects, automatically preventing errors during editing and indexation.

The result is a unified, reliable and fully automated end-to-end workflow between Helmut and the MAM. End-users can access a remote workstation hosted in the private cloud from any corporate office and from anywhere in the world, even from home."



Eurosport's technology transformation

As is often true of sporting success stories, this highly ambitious transformation project has been the ultimate team effort – with all stakeholders working together to find solutions that perfectly fit the requirements. Together with the project's post-production workstream partners, a centralised, cloud-based, high-performance production system has been created for Eurosport's worldwide reporting needs, based on two data centres. Helmut4 is the conductor in this orchestra of units and components. Agile, fully automated cloud-based processes support Eurosport's teams in their creative work on live productions, with scalable capacity to reflect the format in use.

About MoovIT

MoovIT provides video and IT solutions for broadcasters and organisations of all shapes and sizes. The company, headquartered in the Schanzenviertel district of Cologne, specialises in the development and support of workflows for all aspects of post-production, news and archiving at the interface between video and IT. MoovIT leverages particular expertise in the field of technical solutions for sports reporting. In addition, the company develops web-to-video solutions, localisations, remote editing systems and video hosting products used by organisations acrossa highly diverse range of industries. MoovIT's customers include broadcasters, production companies, sport event organizers, agencies, and enterprises from a wide range of backgrounds. In short, MoovIT is the perfect partner for worldwide support, managed services, software, hardware and integration solutions that accelerate and streamline processes – what we call WORKFLOW IN THE FLOW.

MoovIT GmbH Schanzenstraße 29 51063 Cologne - Germany +49 221 30 20 02 10

info@movit.de www.moovit.de

