Dresden.

High density. High performance. High emotions.

Image rights: Sandra Hofmann

Digital excellence at the Heinz-Steyer-Stadion in Dresden

Amidst the cheers of fans, sporting records, and the urban pulse, beats a technical heart that few see – but everyone feels. The new Heinz-Steyer-Stadion in Dresden has been completely redesigned, in terms of both architecture and on a digital level. The comprehensive site-wide network, featuring high-performance indoor and outdoor Wi-Fi and a firewall-protected internet connection, provides a robust digital foundation for sports, events, and communication. It was implemented with LANCOM Systems – ensuring maximum performance, flexibility, and security for every event.

Challenge: full bandwidth for full stands

The requirements for the network infrastructure were clear: maximum availability for different user groups, flexible scalability for events, and a secure, centrally managed solution – all under extreme time pressure. The complex project was part of the third phase of the stadium renovation, with the contract awarded on short notice. Planning and implementation began with the Ekahau Wi-Fi survey in December 2023, following a strict schedule to hand over the stadium fully digitally equipped for its reopening in June 2024. The goal: a high-performance IT infrastructure and Wi-Fi solution for visitors, athletes, organizers, and administration – both indoors and outdoors.

The solution: Site networking with a system – secure and scalable

A total of 176 access points – 103 of which are for outdoor use with 88 outdoor sector antennas specially developed for high-density environments with a beam angle of 30° – ensure complete Wi-Fi coverage throughout the stadium grounds. The network is comple-mented by 47 powerful switches, a UF-1060 firewall for maximum network security, and internet connection via a 10 Gbit fiber-optic connection. All network components are centrally managed and monitored via the LANCOM Management Cloud (LMC) hosted in Germany.

Outdoor access point LANCOM OX-6400 with sector antenna AirLancer ON-Q30: positioned high up in the stadium roof, this combination ensures com-prehensive and powerful Wi-Fi coverage on the stands of the Heinz-Steyer-Stadion.
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Automated Wi-Fi optimization for dynamic events

A highlight of LANCOM cloud management is the patent-pending technology for auto-mated Wi-Fi optimization: LANCOM Active Radio Control™ 2.0. This is particularly relevant in this application, where new requirements for Wi-Fi availability arise at a wide variety of events. Using real usage data, this technology continuously analyzes the current utiliza-tion, channel conflicts, and sources of interference in the radio network and calculates the best network configuration on the basis of computer-based learning. With this intelligent support, the IT administration can optimize the Wi-Fi network at the push of a button, ensuring that all user groups – from internal staff to stadium visitors, media representatives, mobile caterers, shop operators, security personnel, and event organizers – are reliably and efficiently connected to the internet at all times.

Premieres in live operation – new components successfully in use

Particularly noteworthy in the implementation of the project: Three LANCOM products were used productively for the first time – the firewall flagship LANCOM R&S®Unified Firewall UF-1060, the DIN rail switch IGS-3510XUP with extended temperature tolerance,

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> *"For us as a public client, security was just as important as technical performance. With the LANCOM solution, we operate a GDPR-compliant, fail-safe network – even under event pressure."*
>
> Rico Gottwald,
> Head of Sportpark Ostra/HSS

and, the 30° outdoor sector antenna AirLancer ON-Q30. All products delivered a smooth market launch – with only one instance of initial challenges, which were resolved in record time thanks to the rapid deployment of a LANCOM expert flown in on short notice. A compelling example of the manufacturer's innovation, agility, and hands-on project support.

Temporary installation during the top sporting event DIE FINALS 2025 in Dresden, housed in a weatherproof equipment box from meco IT, the robust LANCOM IGS-3510XUP industrial switch reliably controls timing displays, measurement systems, and advertising boards – meeting the highest demands of event operations.
Image rights: Sandra Hofmann

Reliable project partners

The project was implemented by long-standing LANCOM partner, meco IT GmbH. The choice fell on the experienced systems integrator thanks to its capacity for direct project support and its specialized expertise in LANCOM solutions. As a manufacturer, LANCOM distinguished itself through an uncompromising commitment to quality, security, and digital sovereignty: offering a complete IT infrastructure portfolio engineered in Germany and fully manageable via a trusted cloud hosted in Germany.

Outlook: An infrastructure with perspective

With the new Heinz-Steyer-Stadion, Dresden now has a digitally connected sports venue that delivers outstanding performance both for everyday use and major events. The reliable network infrastructure forms the backbone for communication, media, administration, and security. The expansion of the neighboring Ostra Sportparks with many other sports facilities, such as an ice hockey arena, is already being planned – and digitization will also play a central role there.

At a glance

The client

Dresden.

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The partner

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Requirements

→ Site networking with Wi-Fi coverage for more than 10,000 users

→ Maximum availability for different user groups

→ Scalability for special requirements in event operations

→ Central management of IT network components

→ Automated Wi-Fi optimization with ARC 2.0

Deployed components:

Network management:

→ LANCOM Management Cloud

→ LANCOM Active Radio Control™ 2.0

Indoor/outdoor access points/antennas:

→ LANCOM LX-6200 / 6400 / 6500

→ LANCOM OX-6400 / 6402

→ AirLancer ON-Q30

Switches:

→ LANCOM XS-5110QF

→ LANCOM XS-6128QF

→ LANCOM GS-4530XUP

→ LANCOM GS-4554XP

→ LANCOM GS-3510XUP

Firewall & fiber optic internet connection:

→ LANCOM R&S Unified Firewall UF-1060

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