MEDIA
BROADCAST

5G Blue Box Implements Your New Applications

5G USE CASES

Innovative Technology Enables Innovative TV Production

With 5G technology, new potentials are created for developing innovative and efficient TV production methods and for successfully preparing for future challenges.

Since the commissioning of the 5G campus network at the end of 2020 in Nauen near Berlin, we have already been able to develop various applications for private 5G networks and effectively demonstrate the stability and performance for live TV productions with our 5G test campus.

From an innovative drone control to live reporting from the EM quarters of our German national team at the UEFA Euro 2020 tournament.
With our 5G Blue Box, which can be used throughout Germany, any 5G use case can be successfully implemented.

5G campus networks enable unsurpassed performance

- Up to 10 Gigabit peak data rate
- 1/1000 second signal propagation time
- Sole use of entire bandwidth, no interruptions
- Up to 1,000,000 devices per km²
- Independence due to proprietary frequency spectrum and limitless, rapid mobile usability
- Security through private industrial frequency on own premises

Live from Our Innovation Lab

Media Broadcast demonstrates the potential and performance of 5G campus networks in its own 5G Innovation Lab from the Technology Center in Nauen near Berlin on the basis of three use cases:

Spectacular shots by drone in the 5G campus network
Faster and more precise recordings that no longer need to be cached. Live and in real time via a frequency spectrum that allows for several hundred megabits, and with unprecedented reliability and quality.

Experience soccer up close with 5G
In the future, viewers will not only be watching, but will be right there, in the middle of the action. Media Broadcast has the capacity to use wireless cameras to transport high-resolution images via the 5G campus network and to immerse the viewer virtually in what is happening. The spectators become participants on the field—just like in a video game—only with real pictures and next to their favorite player. Whether soccer fans, trade fair visitors, or for training purposes, in the future no one will have to leave the house to be there on site.

TV production with the first professional 5G built-in camera
Professional TV content production via 5G. Wireless broadcast camera powered by Media Broadcast and Blümer System Development with unprecedented quality in production recordings; 20 times the capacity compared to today's wireless cameras. Premium quality was previously only possible with wired technology – we have broken through this limitation.

In our **virtual 5G showroom** you can experience these use cases in the form of videos in VR and 3D quality.
Explore and switch on now:
media-broadcast-5g-showroom.store

From Use Case to Live Production Operation

First mobile TV production in the 5G standalone campus network

In order to show the flexibility available to TV productions of large events in temporarily established campus networks, Media Broadcast and LiveU have tested mobile TV production for the first time. The portable “transmission backpack” from LiveU was integrated into a 5G campus network in order to carry out live transmissions. Completely independent of public 5G networks and from almost any location.

- Exploiting the potential of 5G Non-Public Networks (NPN) for media production
- Independent of available bandwidths and the capacity utilization of public 5G networks
- Up to four camera signals can be transmitted with a mobile LiveU unit

Live coverage from the national soccer team’s EM quarters

The benefits of mobile TV production in the 5G environment were already evident in the live screening from the EM quarters for the German national soccer team at Adidas in Herzogenaurach and ensured the local reporting using the mobile LiveU broadcasting unit LU800.

- First-ever TV broadcast over a private 5G network
- Installation and commissioning within 48 hours
- Transmission of live images — in high-resolution and in real time

The previously tested solution was thus be successfully used for the first time in a real TV production of a major media event with one of the most innovative approaches.

5G-VIRTUOSA: Remote Production Solutions

The aim of the EU Horizon 2020 5G VIRTUOSA project is to make the TV production of live content such as sports or cultural events more attractive and much more efficient than before, even from different locations.
The basis for this is a combination of 5G with powerful ALL-IP networks and innovative virtualization concepts which offer completely new production methods to TV stations and rights holders.

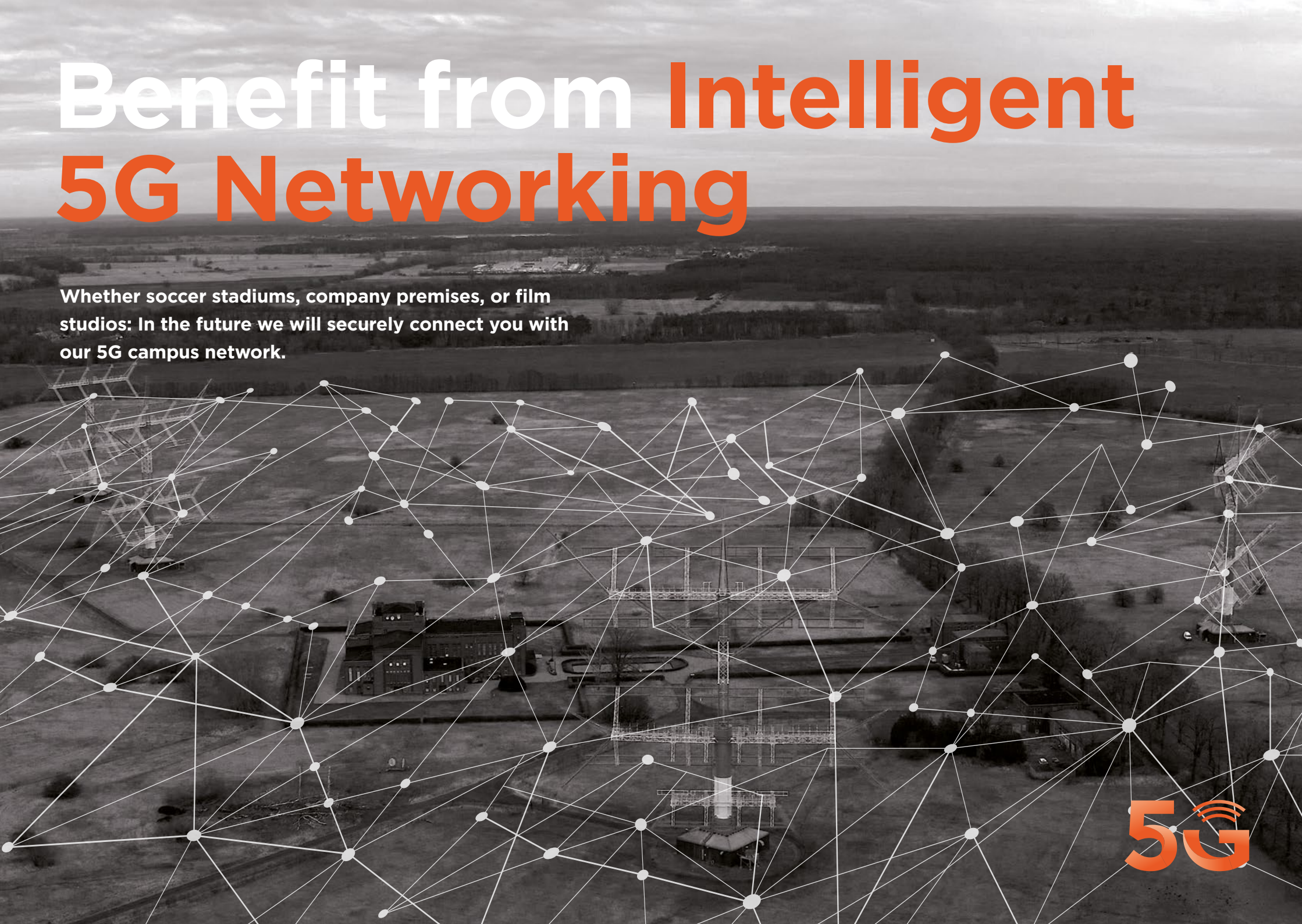
At the end of the project, we were able to prove our expertise and the performance of our infrastructure in a demonstration. In this demonstration, a TV production with TV signals from five different locations in Germany and Great Britain was simulated, while simultaneously determining important technical performance values, thus providing valuable insights for the further design of such production solutions.

A temporary TV studio in the 5G technology center at Media Broadcast served as the centerpiece and played a key role with our ALL-IP backbone. In addition, live images were shot outdoors with professional Sony TV cameras using a 5G modem, and transmitted to the TV studio via the local campus network via the 5G Blue Box.

With this project, we demonstrated the diverse production possibilities that will be offered in the future as a result of the interplay of new technologies.

Benefit from Intelligent 5G Networking

Whether soccer stadiums, company premises, or film studios: In the future we will securely connect you with our 5G campus network.



GET IN TOUCH WITH US!

Create the Future with Us.

Find out what innovative opportunities the future holds.

media-broadcast.com/5G-use-cases/en

5G

Media Broadcast is part of the freenet Group and, as Germany's largest nationwide service provider for the broadcasting and media industry, is your partner for digitalization. The company plans, sets up and operates multimedia transmission platforms for TV and radio based on modern transmitter, cable and satellite networks. Media Broadcast is the market leader in DAB+ and DVB-T2 HD and markets the freenet TV platform. Among its other activities it has a shareholding in Antenne Deutschland, the DAB+ platform operator. The platform provider audio.digital NRW is a 100% subsidiary of Media Broadcast. The company also connects broadcasters with its high-availability fiber-optic network and undertakes productions and broadcasts of live events for TV stations and companies. Since the end of 2020, Media Broadcast has been operating its own 5G standalone campus network where it is joining forces with customers and partners to develop innovative 5G applications for the media sector and other industries. The company is based in Cologne. Several hundred service employees are deployed nationwide.

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