

# Sony Center Berlin

idDAS delivers cellular coverage to shared office space within iconic building via a unique, capacity-sharing solution

**COBHAM**

## Case Study

The most important thing we build is trust

### Overview

In a unique capacity-sharing project, Cobham Wireless built on the success of an earlier cellular deployment for the Berlin Fan Mile, and extended coverage to the Sony Center, half a kilometre away. The company expanded the idDAS network to deliver reliable coverage to a provider of flexible shared office space, spread over four floors of the central Berlin building.

### Challenge

Despite offering Wi-Fi throughout, the office space provider in Berlin's Sony Center lacked cellular coverage. Installing a completely new coverage system for such a small area would require a significant investment by a local mobile operator. An effective, low-cost, energy efficient coverage solution was required, which would be affordable for the vendor and installed by a systems integrator.



### The Challenge

The Sony Center, designed by Helmut Jahn and located in the historic Potsdamer Platz in central Berlin, is a mixed-use space comprised of offices, shops, restaurants, leisure and entertainment facilities, hotel rooms and apartments. Four floors of the Center are occupied by a company which offers a new take on the traditional office concept, renting shared workspace with additional services and features.

Despite Wi-Fi being available to some users of the building, cellular coverage was not accessible in this shared workspace, and was a crucial requirement for its tenants. As the required coverage was in a small area only, there was little impetus for the mobile operators – Vodafone and Telefónica – with networks in the area, to invest in extending coverage to the shared workspace area at the Sony Center.

Installing a base station near the building to provide connectivity would involve significant outlay and poor ROI. Additionally, the shared workspace area which required coverage is not always fully occupied and typically only in use during working hours, which would mean an inefficient use of network capacity. The modern office concept provider required a cellular coverage solution, but could not rely on the local operators to pay for and proactively deploy the network.

### The Solution

In 2015, Vodafone and Telefónica partnered to extend coverage and capacity to Berlin's Fan Mile, using a Cobham Wireless intelligent digital distributed antenna system (idDAS). By using idDAS all the Base Station equipment could be collated in a remote location outside of the city, reducing the onsite rental and maintenance requirements. The solution can extend coverage and share capacity over huge distances, by connecting to the remote base stations via one single multi-mode fibre link. The deployment enables Vodafone and Telefónica customers to access seamless high-bandwidth 4G (LTE) and 3G services in the area.



When asked to provide coverage to the shared workspace, Vodafone saw an opportunity to extend existing capacity from the idDAS network at the Berlin Fan Mile, to the Sony Center. This presented a much more cost effective option than scaling a traditional cellular network, and did not rely on Vodafone to extend or pay for the network.

Cobham Wireless partnered with systems integrator SXF-Plan, to implement the extension of coverage and capacity from the Fan Mile half a kilometre away. The company also worked closely with Viastak London, which acted as a consultant on the project and provided contact with local German companies.



The signal was extended via a single 6km multi-mode fibre link from the master unit at the Fan Mile site to a high power remote unit within the Sony Center. The Center is divided into two segments, with the shared workspace offices located in both. As such, signal was cascaded to a second remote unit via multi-mode fibre over a 200m skywalk crossing the eighth floor. From these remotes, a passive network comprised of dividers and antennas brings the signal within the four floors where the office space is located.



**vodafone**

*"This really was a win-win situation for all parties involved. The company which owns the shared workspace area benefitted from a very quick, straightforward process, as there was no need to wait for initial preparation work and BTS installation. Vodafone meanwhile saved money both on the cost of hardware, and the maintenance and management of the system."*

Enrico Schadock, Head of Germany In-House Realization and WLAN, Vodafone

"Connecting remotes to the master unit and setting up the routing profile was a simple and straightforward task, with the network connected within weeks, offering connectivity to Vodafone and Telefónica customers" commented Mike Voigt, Director, Cobham Wireless. "The project was a quick and straightforward extension of an existing system, rather than a disruptive, timely, and costly deployment from scratch."

The idDAS capacity sharing deployment enables Vodafone and Telefónica customers at the shared workspace to access high-bandwidth 3G and 4G (LTE) services for the first time.



### The Benefit

Neither the shared workspace area in the Sony Center nor the Fan Mile require constant cellular coverage. Extending and sharing capacity across the sites provides a cost- and energy-efficient solution which delivers effective coverage to users and visitors at both locations, as and when it is required. The success of the project has opened up the possibility of capacity being extended and shared to additional sites across the city in the future.

The deployment marked Cobham Wireless' first capacity-sharing project using its idDAS system. It is also a rare instance of a neutral host concept in Germany, whereby the host pays for the management and maintenance of an operator network.

"Rather than waiting for an operator to make the first move, we took a proactive approach to bring together the end-user, landlord and mobile operator, delivering an in-building cellular coverage solution," explained Gunnar Schröder, Head of Project Management, SXF-Plan. "This meant the project was completed far faster and far more cost-effectively than traditional deployments. We integrate and commission buildings and office spaces all over Germany for mobile operators and their customers, and having seen the success of the Sony Center site, we would be happy to replicate this approach across other locations."

Ordinarily, providing coverage to a location such as that in the Sony Center would involve installing a base station within the building, as well as a passive or active distributed antenna system and remote radio head(s). The initial purchase of the required equipment would have been a significant outlay, and one which both vendor and network operator were reluctant to make, considering the small area occupied by the shared workspace.

By simply extending coverage from an existing idDAS system, Cobham Wireless' capacity sharing solution saved both parties considerable time and financial resources. The workspace provider was able to cover the low cost for the remotes, with the mobile operators acting as supporters of the project, by allowing the vendor to use their frequency and wireless signals.

"This really was a win-win situation for all parties involved," commented Enrico Schadock, Head of Germany In-House Realization and WLAN at Vodafone. "The process was very quick and straightforward, as there was no need to wait for initial preparation work and BTS installation. Vodafone meanwhile saved money on the cost of hardware, as the host pays for the management and maintenance of a small part of the operator network."



**SXFPLAN<sup>3</sup>**

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