

The development of WLAN infrastructure and the supply of facilities of any size with constant Wireless LAN coverage has always been one of the core capabilities of Spreenauten GmbH.



We can also look back on more than 20 years of business experience in the WLAN sector, which began in 1999 with the first experimental WLAN "radio cells" and today includes highly complex Wireless LAN mesh networks.

### **WLAN - Case Studies (Example area) of the Spreenauten GmbH**

#### **➤ WLAN in small facilities (small office, store, workshop)**

Especially the coverage of small offices, stores or even workshops is usually especially complicated because there are often direct neighbors - and generally the same or very similar router technology and WiFi architecture is used. This reduces the possible bandwidth (transmission speed). By changing the technology, combined with a stringent WLAN architecture, this problem can be solved easily in most cases. Here we also like to help you to help yourself and give free advice.

#### **➤ WLAN in facilities of medium size (department stores, shopping malls, airports)**

Among our main projects in the wireless LAN area are, as in DMR and TETRA radio, medium-sized companies. These include in particular shopping malls, medium-sized industrial units and public facilities such as airports or railroad stations, but also logistic facilities such as large and very large warehouses. The functionality and the perfect WLAN coverage is always critical for production. Therefore it must have basic redundancies and an integrated failover. Of course, 24/7 monitoring is also an absolute must. Our 24/7 support, as in the WLAN area, we are happy to provide.

For the coverage on sites of this kind, there is no way around MESH-LAN technology. Here, a WLAN infrastructure is set up by means of many WLAN satellites, which are again controlled by a base. The satellites connect to each other via WLAN. Wireless networks can thus be set up quickly and without the expense of cabling. With wired WLANs, the access points are connected to the base (e.g. the router) by cable. In comparison, the disadvantage is that MESH-LANs can theoretically be disturbed more easily. In our daily practice we have not yet been able to determine this.

#### **➤ WLAN for larger facilities (factory external, factories internal, cities)**

WiFi coverage of large areas such as factory yards, factories internally or entire cities is always a special challenge - and is always very interesting for us from a technical point of view. Just as in the field of radio technology, we always try to include the existing infrastructure, but also the architecture (buildings) in our concept. Often it is possible to achieve substantial savings and create synergies between different technologies (5G, point-to-point connections on 866 MHzs BAis et.c of the radio spectrum).

#### **➤ Mobile WLAN**

We are also happy to offer mobile WLAN to cover stationary events, exhibition stands or mobile events. For further information, please visit our "Mobile WLAN" page.

## **WLAN - our services**

We always see radio technology from a 360° perspective and therefore offer "everything from one source" as usual. This includes:

### **➤ Planning WLAN**

Using our in-house software we plan your WLAN project, simulate the coverage and offer a precise quote.

### **➤ Assembly WLAN**

Whether antenna systems, wired WiFi access points or MESH LAN, our radio technicians will carry out the installation on site quickly and conscientiously (even during operation).

### **➤ Maintenance WLAN**

Just like radio cells, your WLAN should also be maintained regularly to ensure the desired function. We are happy to provide remote support for firmware updates. Depending on the size, we also recommend a visual inspection of the individual components on site every one to two years. The antennas should also be cleaned during this inspection.

### **➤ Supervision / Monitoring WLAN**

Our 24/7 support monitors radio cells, assists with technical questions and offers short SLAs.

### **➤ Sale & rental routers, access points, MESH LAN**

The sale and rental of WLAN components is an integral part of our cross-brand selection.

## **WLAN - the USP of Spreenauten GmbH**

What distinguishes us from our competitors? On the one hand, we have always concentrated on radio technology and have achieved a considerable depth of knowledge in this area. This often enables us to recognize problematic factors often faster, since we are at home in the radio spectrum. A complete spectrum analysis, for example, is one of our standards for every installation. On the other hand, we are maximally IT-savvy and have developed our own heat map software for coverage control and coverage simulation. This is valuable in itself because it allows us to avoid unseen issues and thus costs for our customers such as excessive hardware use, or a shortage of successful project documentation.

Our WLAN team around our technical management is looking forward to your project. We are also happy to optimise existing WiFi networks and document them as far as necessary.

You can reach our WLAN team on our central support hotline (24/7):  
[+49.\(0\)30.293.81.97-0](tel:+49(0)30.293.81.97-0) and by e-mail: [wifi@spreenauten.com](mailto:wifi@spreenauten.com)