CONNECTIVITY FROM THE CLUB HOUSE TO THE 18TH HOLE

BMW International Open provides players and visitors with fast and secure high-speed Internet access.
BMW International Open, Germany’s premier golf tournament and one of the highlights of the European golfing calendar, attracts some of the game’s greatest stars and over 60,000 sports fans each year. Since 2016 BMW is providing players, visitors and journalists with secure high-speed Internet access and online connectivity across the venue from the 18th hole to the club house.

The communications infrastructure including LAN, WLAN and IP telephony at the golf course is installed by Alcatel-Lucent Enterprise, the official Connectivity Partner of BMW International Open since 2016.

**THE EVENT: BMW INTERNATIONAL OPEN**

The BMW International Open is the most prestigious professional golf tournament in Germany. BMW has been the title sponsor since 1989 and no other European Tour event has been held under the same name for such a long time – a remarkable success story.

BMW launched its involvement in professional golf at the BMW International Open, and since then, the premium automobile manufacturer has become one of the sport’s most prominent global partners. In addition to sponsoring professional tournaments in the UK, the US, South Africa, South Korea and many other countries, the company also organizes the largest international tournament series for amateur golfers - roughly 100,000 participants from about 50 countries compete in the BMW Golf Cup International.

The BMW International Open enjoys an excellent reputation among professional golfers, thanks to the perfect facilities. These include the course itself, which is always immaculately prepared, as well as the seamless organization, popular evening events, shuttle bus service and test cars for players and in 2016, extensive Wi-Fi and communications support.

Due to its long-term engagement, BMW enjoys excellent relationships with the players, golf clubs and agencies. This widespread professional network facilitates the organization of this “feel-good tournament” that is not only appreciated by professional golfers, but also by the many visitors and international journalists who cover the tournament. According to project manager Jörn Plinke, BMW wants spectators and customers “just to have an extraordinary day at the golf course”. Priority is therefore given to the brand experience.

From 2012 to 2018 the tournament took place alternating between Gold Club Eichenried nearby Munich and Gut Lärchenhof close to Cologne. Since 2019 the famous golf tournament moved permanently back to the original place at Golfclub Eichenried.

**BMW INTERNATIONAL OPEN IN FIGURES**

- 2 video walls
- 50 screens
- 50 exhibitors
- 150 km of TV, electricity and telephone cables
- 200 experts make TV broadcasts possible
- 250 trucks were unloaded
- 500 volunteers worked on site
- 500 technicians assembled and dismantled equipment
- 2,000 seats in the grandstands
- 3,500 project professionals
- 9,500 m² of tents for hospitality, exhibition and work areas
- 20,000 m² of Public Area
- 38,850 golf shots played in roughly 450 rounds of golf
- 60,000 spectators
- 140,000 kilometers covered by the BMW shuttle service
OVERALL CONDITIONS

- Large area
- Weak mobile phone coverage
- Existing 3x100 Mbit radio link and phone connection
- Existing infrastructure to be integrated with event infrastructure
- Combination of indoor and outdoor
- Step-by-step implementation:
  - Organizers
  - Press and TV
  - Public area (exhibitors, visitors)
- Go-live of the different segments at different times
- Set-up during ongoing operations of the golf club

THE CHALLENGE: HIGH DEMAND, WEAK COVERAGE

To provide connectivity at a high-class golf tournament poses a double challenge: first, golf courses are usually located well outside the urban hot spots, so mobile phone coverage is always weak; second, very high demand for network bandwidth and data is generated when organizers, sponsors and partners, media representatives from around the world and tens of thousands of visitors all require on-demand connectivity.

For these reasons, connectivity had been an issue at former BMW International Open tournaments. As the demand for bandwidth and data has increased significantly since then, the organizers wanted to play it safe. They went looking for a partner who could master the technical challenges and meet the high demands of users who have come to expect nothing less than a smooth wireless connection.

BMW found this partner in Alcatel-Lucent Enterprise. After a first contact at CeBIT 2016, it was established that Alcatel-Lucent Enterprise had both the technology and experience to implement the required solution and was quickly named the official Connectivity Partner of the 2016 BMW International Open. 2019 is the 4th anniversary of the partnership.

THE SOLUTION: SECURE CONNECTIONS, HIGH AVAILABILITY

Since then Alcatel-Lucent Enterprise took over the task of installing a communications infrastructure that would provide organizers, partners, media representatives, players and visitors with flawless online connection and secure high-speed Internet access during the tournament.

Every year a highly available network infrastructure is built that comprises a full local area network (LAN), IP telephony for the organizers, and WLAN functionality for everyone on site – including free public Wi-Fi for spectators.

The Alcatel-Lucent OXO Connect communication server is installed to support 75 telephone users connected via IP DeskPhones and IP DECT handsets. The LAN infrastructure is providing highly available connections with more than 300 user ports.

The WLAN infrastructure is set up with rugged WLAN access points designed for outdoor environments, providing high density on the 20,000 square meter public area. The 1,200 WLAN users require optimized frequency management that have to be significantly more sophisticated than the one used in typical corporate environments.

Various POS systems are connected to the networking infrastructure, including the BMW system at the event entrance and the systems of the event sponsors Hugo Boss, Karstadt Sport and SAP.

IMPLEMENTED INFRASTRUCTURE

- OXO Connect
- Premium DeskPhones
- 8378 IP-xBS DECT Access Points
- Current portfolio of DECT Handsets (8212 to 8262)
- Cloud Connect
- Rainbow with WebRTC Gateway
- OmniSwitch® 6450 OmniSwitch 6560 Multigigabit Switch
- OmniSwitch 6860
- OmniSwitch 6900 Core Switch
- OmniAccess® Stellar WLAN Access Points designed to provide high density in outdoor environments
- OmniVista 2500 Network Management
- 4 km 1/10G fibre optics and data cable on the premises
- Integration of POS systems

Since 2017, TV broadcasting has also been carried out via the network infrastructure provided by Alcatel-Lucent Enterprise. Since voice transmission is extremely time-critical and picture and sound must run 100% synchronously, Media Broadcast always used its own ISDN lines in the past. However, this became obsolete due to the fast and reliable bandwidth provision of the high-performance LAN.
THE PROJECT: SMOOTH AND SUCCESSFUL

“To set up an event infrastructure of this scope poses many challenges. We had to take into account the existing network components, the specific local conditions on the golf course, and the ongoing activities in the golf club. In addition, our work had to fit into the enormous overall event logistics,” say the, Solution Designer at Alcatel-Lucent Enterprise. “Everything worked smoothly, so we were not visible to guests and players, which is always a good sign.”

Jörn Plinke is responsible for BMW Golf Sport Marketing and said: “We are very happy to have won with Alcatel-Lucent Enterprise as our Connectivity Partner and are highly satisfied with the success of this project which enables us to offer the players, journalists, partners and spectators the high-class connectivity that they are entitled to expect. There were no failures or complaints at all. In short: everything went exactly as we had imagined it, and we would be pleased to further expand our cooperation with Alcatel-Lucent Enterprise in the future.”

CHALLENGES

• Large event area with weak network coverage
• High demand for bandwidth and data
• Step-by-step implementation during the opening hours of the golf club

SOLUTIONS

• IP telephony
• High-availability LAN
• WLAN with optimized frequency management

BENEFITS

• Reliable connectivity provided to players, partners, journalists and spectators of the 2016 BMW International Open
• Secure high-speed Internet access and state-of-the art IP telephony
• All indoor and outdoor areas were covered: club house, public areas and the course grandstands