



## Streaming live from the stadium

Enabling an uninterrupted live transmission of EURO 2016 @230 km/h in railcars

### CLIENT PROFILE

#### SECTOR

Transportation

#### COMPANY

Austrian Federal Railways (ÖBB)

#### EMPLOYEES

40,031 (as on 2015)



1.3

Million passengers

## CONNECTING MILES: HOW AUSTRIA'S LEADING TRANSPORT SERVICE PROVIDER BROUGHT TOGETHER SOCCER FANS

The Austrian Federal Railways (ÖBB) is Austria's largest transport services provider. ÖBB transports about 1.3 million passengers by train and bus to their destinations, daily. The ÖBB Railjet is the transport provider's ultra-modern high-speed train operating at speeds of 230 km/h. These high-speed trains are equipped with advanced on-board entertainment facilities including live streaming of ORF (Österreichischer Rundfunk), the Austrian Broadcasting Corporation's programmes.

570

Trains (running at peak times)

## STREAMING SOCCER LIVE @ 230 KM/H

During the UEFA Euro 2016 championship, ÖBB wanted to do something innovative- show live transmission of matches in the Railjet trains. They brought Nagarro on board for the conception and coordination of this flagship project. As the project partner, Nagarro's role involved developing scenarios and technical solutions for a stable and fail-safe reception, and to implement and test the solutions. ÖBB had launched a massive digital campaign around this and the public expectations were very high.



## SETTING THE COURSE FOR INNOVATION

The transmission of all relevant EM (European Championship) games live on the screens in the ÖBB Railjets presented the project team with the following challenges:

- Achieving high-quality mobile WLAN connectivity on trains running at a speed of 230 km/h.
- Providing high performance while handling ambient issues such as fluctuations in reception due to tunnels and train insulation or roaming issues while traveling via the famous Deutsche Eck (German Corner).
- Managing industry based challenges related to maintenance and broadcasting rights.
- Ensuring a robust implementation to guarantee clarity and reproducibility of reception.



"Nagarro has supported us tremendously during this project. It is easier to set up WLAN in a space shuttle than in a Railjet, since the former transports significantly less passengers and unlike the Railjet, it is connected to a land-side transmitting station."

Christoph Schmutz,  
CIO, ÖBB Personenverkehr AG





## CONFIGURING WLAN WITH MAXIMUM BANDWIDTH

Nagarro developed a solution that ensured an uninterrupted and high-quality transmission of a total of 4,000 in-game minutes. Some of the significant features of the final application included:

- **Fail-safe transmission:** The developers evaluated the optimal route, technical equipment including back-up locomotives in order to ensure failure-safety.
- **Impeccable transmission quality:** The requisite download capacity was ensured by bundling all available mobile operators and leveraging LTE technology.
- **Seamless Wi-Fi roaming:** The team was successful in providing seamless roaming solutions for uninterrupted service while travelling via the Deutsche Eck (German Corner).
- **Close coordination:** The team coordinated with the partner for quality checks during the entire course of the journey.
- **Round the clock monitoring:** The system was monitored 24/7 and the teams coordinated with the marketing team for insightful updates on ÖBB's digital campaign.

## RESULT

The partnership proved to be a roaring success. The entire project took just 16 weeks to go live from ideation to implementation at the end of which:

- high-quality transmission of a total of 4,000 in-game minutes was delivered
- uninterrupted WLAN connectivity was achieved while travelling at 230 km/h



## ABOUT NAGARRO

Nagarro provides technology services for digital disruption to both industry leaders and challengers. When our clients want to move fast and make things, they turn to us. We combine design, digital and data to help them outperform the competition. We distinguish ourselves by our agility, imagination and absolute commitment to our clients' business success.

Some of our clients include Siemens, GE, Lufthansa, Viacom, Estée Lauder, ASSA ABLOY, Ericsson, DHL, Mitsubishi, BMW, the City of New York, Erste Bank, T-Systems, SAP and Infor. Working with these clients, we continually push at the boundaries of what is possible to do through technology, and in what time frame.

Today we are more than 4000 experts across 15 countries. Together we form Nagarro, the global services division of Munich-based Allgeier SE.