



Providing Wi-Fi for “Russian Railways”

▼ CUSTOMER PROFILE

Company Name: Russian Railways (RZD)

Industry: Railway Transport

Location: Russia

▼ BACKGROUND

“Russian railways” is a part of top three railway companies worldwide, as well as being one of the most prominent Russian companies. “Russian railways” has several subsidiaries, one of which is “Federal Passenger Company” (FPC). FPC is a

national passenger railway operator, which caters to transporting passengers in the long distance trains. As of 2017 “Russian Railways” have used 21 thousand multi-grade carriages (lux, sleeping car, sleeping compartment, communal compartment, economy class). The company struggles to enhance its quality of passenger transportation, rendering safe, accessible and convenient trips.

▼ CHALLENGE

ITo upgrades the comfort of transportations. “Russian Railways” management has resolved to provide the Wi-Fi access in the branded passenger trains. In order to entertain

people during the trip, the information and entertainment portal has been realized for the trains. However, the key problem was that lots of trains could change its set during the ride: some carriages are coupled, the others are decoupled. The expression “information highway” emerged. TP-Link is the part of this complicated network structure. It is formed of many parts: switches, servers, Wi-Fi, Internet access, trunking equipment.

Previously “Russian Railways” engaged the other major ISP, but it failed to meet all the client’s requirements. Since the TP-Link equipment fit “Russian Railways”, and TP-Link could customize the devices and firmware within the shortest deadlines, “Russian Railways” has chosen our company.



▼ SOLUTION

TP-Link has analyzed the client’s requirements and provided the solution: 10 000 pcs. of dual-band AC access points – EAP225. Each carriage should be equipped with 3 access points EAP225, which operate both in 2.4GHz and 5GHz. It was necessary for unloading the network and balancing between the clients’ devices with 2.4GHz and 5GHz (Band steering) bands.

Therefore, broadband Wi-Fi access has been provided in the carriages, used by the passengers and the

employees as well (i.e., check-out of e-tickets).

Each carriage is equipped with switch, to which TP-Link access points are connected; the control car has server, which provides media-content (music, video, books, etc.). The control car is constant: it cannot be decoupled from the train.



EAP225

TP-Link AC1350 Wave 2 Wireless Dual Band Gigabit Ceiling mount Access Point

- **Reliable Data Transmission**

The two main L3 switches are connected over a 'trunk connection' to ensure data throughput between both switches without increasing the number of cables. Moreover, this connection proves to be fail-safe during data transfer. The four Gigabit SFP slots and the four 10 Gigabit SFP-slots of the two T3700G-28TQ ensures high speed and reliability.

▼ RESULTS

“Russian Railways” has expressed satisfaction with the performance and quality of the Wi-Fi network.

The company was provided with:

- Wi-Fi network for passengers and for employees;
- Centralized management system (SNMP / SSH);
- Monetization of the service (paid Internet access and access to the content);
- Intratrain entertainment portal (cinema, books, service, games, entertainment);
- SMS-authorization – as per Decree of the RF Government as of 31 July 2014 N 758.