

# **Railway Cybersecurity Market by Type (Infrastructural & On-board), Offering, Security Type (Network, Application, Endpoint, System Administration and Data Protection), Application (Passenger & Freight), Rail Type and Region - Global Forecast to 2027**

<https://marketpublishers.com/r/R48A3476C0FEN.html>

Date: July 2021

Pages: 261

Price: US\$ 4,950.00 (Single User License)

ID: R48A3476C0FEN

## **Abstracts**

The global railway cybersecurity market is estimated to grow at a CAGR of 9.4% from USD 6.2 billion in 2021 to USD 10.6 billion by 2027. Major factors driving the railway cybersecurity market include adoption of IoT as well as automation technologies to enhance efficiency in optimization of railways and increasing number of government initiatives and PPP models for modernization of railways. However, the capital-intensive nature of implementing connected technology is inhibiting the growth of the railway cybersecurity market.

Asia Pacific is estimated to have the largest share of the market by 2027. The presence of OEMs such as Thales Group (France), Siemens AG (Germany), Alstom (France), Wabtec (US), and Nokia Networks (Finland) and their investments in rail cybersecurity is one of the major factors fueling the growth of this market at a global scale. These companies offer an extensive range of products & solutions and have strong distribution networks worldwide. The key strategies adopted by these companies to sustain their market positions are new product developments, collaborations, and contracts & agreements. The railway cybersecurity market in different regions is dominated by regional vendors.

“Data protection segment to grow at a significant rate during the forecast period.”

Data protection segment is estimated to be the fastest-growing segment of the railway cybersecurity market. The demand for data protection is high across regions. This is

because of increasing data generation from processes in railways such as ticketing, passenger information collection, and railway information collection. Due to data analytics tools, the importance of data has increased tremendously as it helps make railway operations more efficient and profitable. Moreover, European regulations such as GDPR have further increased the demand for data protection. Hence, the increasing growth and importance of data in railways drives the need for data protection.

“Passenger train segment to grow at a higher cagr during the forecasted period”

The passenger trains segment is expected to lead the railway cybersecurity market. The security of the passenger rail network is more complex than the freight segment as there is an open infrastructure, multiple access points, and a vast user base. In recent times, cities such as London and New York have been prone to passenger railway cyberattacks on their rail networks, which has highlighted the importance of railway cybersecurity. Governments across the globe are encouraging cybersecurity solutions for their passenger and freight railways. For example, in April 2020, the US Government Accountability Office released a report containing the assessment of passenger railway cyberattacks in the US and the European region and passed guidelines to limit them. These government initiatives are expected to fuel the growth of the railway cybersecurity market during the forecast period.

Europe is expected to be the largest market for passenger rail cybersecurity. The market growth in the region can be attributed to the increasing demand for comfort and safety and the resultant development of advanced technologies that increase the comfort levels of passengers and reduce intercity travel time. The European Commission is focused on streamlining the rail sector in the region due to the strong passenger rail sector. Horizon 2020 is one of the most prominent programs launched in the region that would transform the rail sector in terms of digitalization as well as cybersecurity.

The market in Asia Pacific is expected to witness the highest growth during the forecast period. The growth of the market in this region can be attributed to the growing demand for cybersecurity solutions for passenger rail in countries such as India, Japan, Korea, and China. The Hong Kong rail network designed for mass transit services is equipped with safety-critical systems. Thus, the growing demand for cybersecurity systems due to government initiatives is also fueling the growth of the passenger rail network and thereby the railway cybersecurity market.

“On-board security expected to grow at a higher CAGR from 2021 to 2027”

The on-board railway cybersecurity market is estimated to grow from USD 1,861 million in 2021 to USD 3,598 million by 2027, at a higher CAGR during the forecast period. The increasing on-board operational systems are expected to drive the market. In recent years, several railway operators have introduced technologies to offer passengers on-board entertainment. This allows passengers to choose from a variety of films, games, and online magazines. Some of the infotainment systems also allow the passengers to track their journey in real-time. Some of the recent companies involved in providing on-board infotainment solutions include Whoosh, GoMedia, and Moment. However, the advent of on-board connectivity raises several concerns related to data safety & security as numerous devices of passengers that are connected to the network fall at risk. As a result, it becomes necessary to deploy cybersecurity solutions for on-board systems in the near future.

“Asia Pacific is estimated to be the fastest-growing market for railway cybersecurity during the forecast period.”

The Asia Pacific railway cybersecurity market is estimated to grow at the highest CAGR during the forecast period. The growth of the Asia Pacific market is due to increasing urban transit and digitalization of railways by major players and governments in the region. This is to cope with rising consumer demand for convenient and secure travel and comply with fuel-efficiency norms to restrict CO2 emissions. For instance, Bombardier’s Optiflo rail control service solutions introduced new advancements in powerful, data-driven, predictive maintenance and cybersecurity solutions for Asia Pacific.

The study contains insights from various industry experts, ranging from component suppliers to tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: Tier 1 – Cybersecurity Vendors 47%, Tier 2 – 15%, Others - 38%

By Designation: C level - 61%, D level - 23%, Others - 16%

By Region: Asia Pacific- 28%, North America - 30%, Europe - 42%

Major players profiled in the report are Thales Group (France), Siemens AG (Germany),

Alstom (France), Wabtec (US), and Nokia Networks (Finland).

## Research Coverage

The report segments the railway cybersecurity market and forecasts its size, by value, on the basis of offering [solution (risk and compliance management, encryption, firewall, antivirus/antimalware, intrusion detection system/intrusion prevention system, and others ) and services (design and implementation, risk and threat assessment, support and maintenance, and others)]; security type (application security, network security, data protection, endpoint security, and system administration); type (infrastructure and on-board); application (passenger trains, and freight trains); rail type (passenger trains, urban transit, and high-speed rail); and region (North America, Europe, Asia Pacific, Middle East & Africa, and Latin America). It also covers the competitive landscape and company profiles of the major players in the railway cybersecurity market ecosystem.

## Key Benefits of Buying the Report:

The report will help market leaders/new entrants in this market with information on the closest approximations of revenue and value for the railway cybersecurity market and its sub segments.

This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies.

The report will also help the market players understand the impact of COVID-19 on railway cybersecurity market.

The report also helps stakeholders understand the pulse of the market and provides them information on key market drivers, restraints, challenges, and opportunities.

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