

Cisco

Bridging the Digital Divide with Cisco

Cisco has been partnering with transportation organisations across the globe for the past decade, moving the industry forward with technologies that can be integrated into existing and new infrastructure.

InnoTrans World Premiere

At InnoTrans we will be showcasing TSIP for the first time. TSIP (Train and Station Innovation for Performance) is a Network

Rail initiative to trial technology solutions that will deliver quantifiable benefits and outcomes for the rail network. TSIP addresses real-world challenges with smart technology, bringing improvements to passenger experience, employee safety, plus operations and maintenance.

As part of TSIP, Cisco is partnering not just with Network Rail Telecom, but with industry experts such as Intel, Telent, and Purple Transformation Group, to help ideas become transformative solutions. Over 120 use case scenarios have already been identified to deliver improved performance and safety

outcomes. TSIP will assess and develop these use cases focusing on economic, social and transport benefits.

Transforming IoT Data into Actionable Insights

One of the first innovative solutions from TSIP is the SiYtE platform. It utilises vision and IoT analytics to aggregate and visualise metadata from smart devices, providing the rail network with alerts and intelligence which is integral to all use cases.

Cameras and IoT sensors create

near real-time alerts of critical events which then initiate a workflow, assuring an associated action and providing an audit trail. For example, smart analytics can monitor the tracks and other restricted areas, triggering alerts when someone trespasses – pushing an alert to a staff member’s device and auditing their response. It can also monitor other aspects of safety, planning and passenger experience, such as gateline queues, crowd density or even the number of people taking luggage on the escalators. Sensors can monitor aspects such as environmental conditions, for instance air quality in stations (which may be impacted by trains idling unnecessarily) or watching for early signs of crumbling cliffs at the trackside.

For station operators this remote monitoring and sensor insight can reduce delays and enhance performance. SiYtE not only focuses on analytics, events and workflow – but also monitors trends over time, and between data points. This enables the development of proactive insights that can be aligned directly to financial and

other KPIs, enabling data-driven organisational transformation.

Introducing Innovation from a Secure Foundation

At the foundation of the TSIP initiative is a high-speed, next-generation telecoms network for station and train enabling the rail industry to move into a digital world. Network infrastructure for rail operations is already highly complex – with both fixed and mobile requirements to connect trains, trackside, depots and stations. Once you add sensors and smart devices, the need for secure, reliable and scalable connectivity becomes even greater.

TSIP will investigate a variety of mobility solutions, including Cisco Ultra-Reliable Wireless Backhaul (CURWB), 5G and mmWave technology. Placing 5G and wifi connectivity at the core of the railway infrastructure means outputs from smart CCTV and sensor technology can be acted

on in a faster and more proactive manner.

This will help inform flexible options for Future Railway Mobile Communications System (FRMCS) in the future, enabling railway operators to take advantage of new innovative technology to modernise train services.

Through proven and well-established standards-based technologies, Cisco Connected Rail can help maximise implementation success and, significantly reduce installation risk, cost and deployment time. These solutions can help achieve your safety, mobility and efficiency objectives.

To learn more, visit Cisco at InnoTrans (**Hall 7.1B, Booth 230**) or contact Scott Lantis at slantis@cisco.com



From station to track to train, achieve your safety, reliability and efficiency objectives with **Cisco Connected Rail**



The bridge to possible

Visit us at InnoTrans 2022
September 20-23
Hall 7.1b Stand 230

Learn more at
cisco.com/go/transportation