



Delivering Cloud to the Edge for Smarter Transportation

Simplify and accelerate innovation with smarter transportation solutions that utilize cloud, AI, big data and high-speed 5G connectivity.

Enhance passenger experiences and safety and deliver operational efficiencies via an integrated software and hardware platform.

Onboard with Converged Passenger and Operational Applications

Klas specializes in delivering cloud-like experiences to remote locations in industries such as Transportation, Government, Public Safety and Automotive. Not only does Klas provide the highest performing edge hardware, we provide the software to securely host applications remotely and to manage both the software and hardware over the deployment lifetime.

The TRX connected transport system is a holistic platform of software and hardware, that provides a reliable and seamless experience for transport operators and IT administrators, to deliver intelligent onboard IT transport services that are easily and securely managed remotely from the cloud or network operations center.

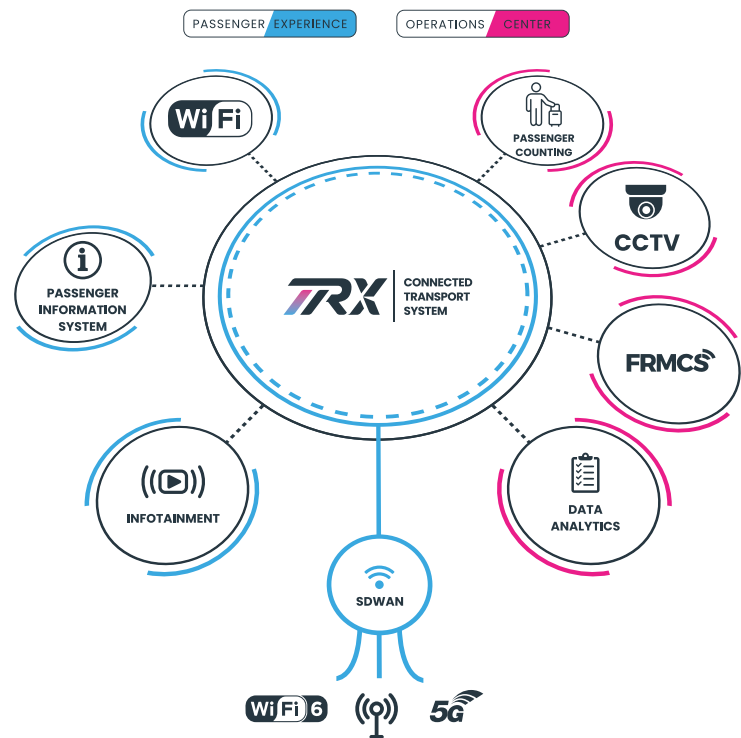


Figure 1: The TRX connected transport system, simplifies the secure IT operation of onboard services at scale.



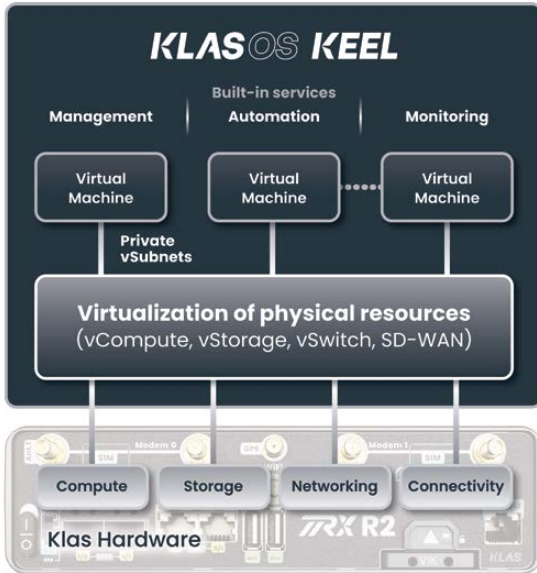


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KLAS OS KEEL

An Intelligent Secure Edge OS for Transportation



KlasOS Keel is a lightweight linux-based open source OS, with integrated KVM-based hypervisor, routing and virtualized switching, firewall, and SD-WAN capabilities, providing a secure virtualization environment on x86 compute platforms.

The integrated KVM-based hypervisor supports sharing of the module's physical resources of compute, storage, networking, connectivity and pass-through of serial peripherals e.g. USB, CAN, MVB to the hosted Virtual Machine.

Keel is NIAP Common Criteria Certified [CCEVS-VR-VID11436-2024], to meet the security standards for government deployments.

More Details

www.klasgroup.com/keel



BLACKROCK

Ansible IT Automation and Monitoring



Blackrock is an Ansible IT automation service that integrates provisioning, monitoring, and update management as one system for secure and easier operational management of IT infrastructure at scale.

Blackrock can act as a standalone application, or alternatively it can be integrated as part of an automation solution with other 3rd party applications. For example, using Nautobot as an external inventory source and Git for source code management of projects.

Be production ready in a few mouse clicks!



More Details

www.klasgroup.com/blackrock

The Blackrock API based on the OpenAPI 3 specification also allows Blackrock to be easily integrated with existing management infrastructure for secure remote management and updates of devices under management.

Virtualization and AI Powered Operations and Services



Virtualised onboard services and networking

Simplify the deployment of cloud-developed services and applications as virtualised machines or containers with Keel's KVM-based hypervisor. With Keel's SD-WAN, securely connect and dynamically route traffic from fleet-wide compute gateways to private networks in the virtual private cloud (VPC) or on-premise over mobile networks.

More Details

www.klasgroup.com/keel/#functionality

AI powered passenger operations

SNCF is leveraging its existing vision infrastructure of CCTV and AI, running on the TRX R6 underpinned by Keel to provide accurate, real-time information on passenger numbers. With the TRX connected transport system, develop and push new AI applications from the cloud to the edge for improved operations, and passenger safety.

More Details

www.klasgroup.com/partners/SNCF

On the Move With Containers and Driverless Trains



Onboard with SUSE RANCHER and Kubernetes

With Kubernetes running on the TRX R6, and secure remote access to the RANCHER cloud, quickly deploy, scale, manage and monitor Kubernetes applications across the transportation fleet. At the same time leverage Harbor for secure and trusted signed container images.

More Details

www.klasgroup.com/Keel/Kubernetes

Accelerate driverless train R&D

Accelerate the journey to GoA4 (driverless trains), with RTMaps from Intempora - a dSPACE company - running on TRX R6. Developers can efficiently get started and access key R&D data with integrated sensors, and a predefined dataset for object recognition in rail.

More Details

www.klasgroup.com/partners/dSPACE

Secure and Trusted Fleet Change Management Systems

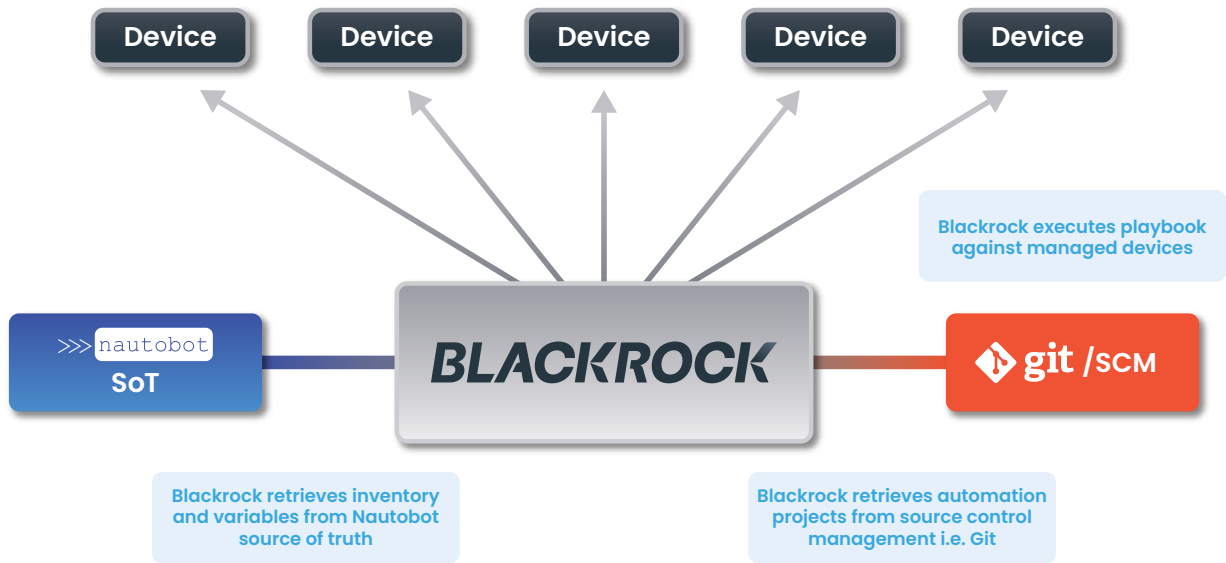


Figure 2: Blackrock provides seamless integration with trusted device inventory and change management systems

Simplify edge device management at scale with a holistic solution of Blackrock Ansible automation, Nautobot source of truth (SoT), and Git-maintained Ansible playbooks. Reduce and minimize human intervention when rolling out and maintaining secure and compliant IT infrastructure at the edge.

More Details

www.klasgroup.com/Blackrock/Nautobot

5G Modular Compute Gateways

TRX R1



Compact modem/router

Modem Support
Single 4G/5G modem

More Details

www.klasgroup.com/products/trx-r1

TRX R2



Intel Atom™ Compute Gateway

Dual 4G or a single 5G modem

More Details

www.klasgroup.com/products/trx-r2

TRX R6



Intel Core™ Compute Gateway

Up to six 4G modems or
three 5G modems

More Details

www.klasgroup.com/products/trx-r6



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For more information about Klas or our
solutions, visit:

www.klasgroup.com/markets/transportation