K-PORT

susietec® K-PORT IoT-bundle

The all-in-one solution for end-to-end device monitoring and management

K-PORT supports companies by automating the commissioning, servicing and maintenance of their solution in the field: With K-PORT, we offer a digital platform that combines admin, container management, remote maintenance and a secure operating system. This means we not only provide the technology, but also the expertise needed to seamlessly integrate OT and IT. The all-in-one solution consisting of hardware, software and connectivity enables the IoT-driven management of thousands of device connections — worldwide and at a glance.

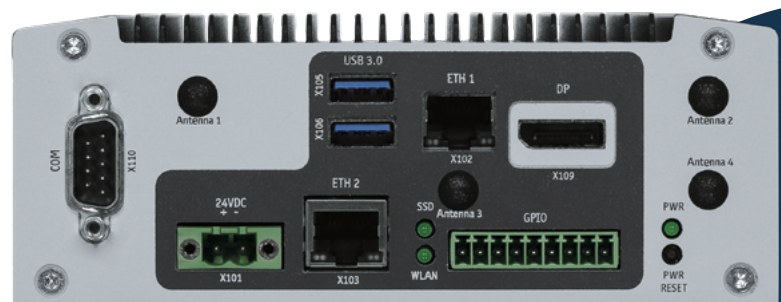**Accelerate time to market**

Take pressure off IT managers

Reduce service costs

Boost machine turnover

Encrypt end-to-end applications

K-PORT services – integrated but usable independently

Device management

- Monitor condition of IoT devices
- Manage all machines worldwide in a cloud-based environment for edge devices
- Onboard IoT devices the easy way
- Manage device fleets

🔒 SecureOS

- Hardened operating system for X86 or ARM, based on Yocto Linux
- Two redundant operating system partitions, 100% uptime
- Secure management interface for updates and deployment
- Can be updated at short notice in the event of "critical" weaknesses

Container management

- Administrate docker containers
- Deploy docker containers to device fleets in the field
- Encapsulate customer applications (images) in containers

Remoting

- Central management of desktop and remote access such as RDP & SSH access
- Set up secure remote connections

VPN-Service

- Activate and deactivate temporary direct access to the machine and plant network
- Direct connection tunneling between networks
- Managing, monitor and log VPN connections
- Connect to one device at the same time

This is how you benefit as

IT managers

- Minimize complexity for IT teams
- 24/7 overview of globally distributed device inventory
- Encrypt end-to-end applications
- Continuous deployment during operation

Service & Support

- Reduce hardware, installation and maintenance costs
- Save time through troubleshooting
- Extend the depth of support down to the PLC
- Act proactively and with foresight
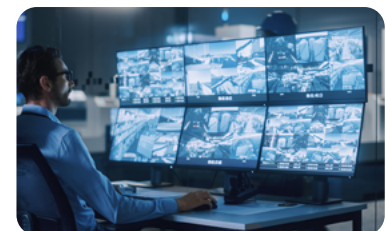
CDO & R&D mangers

- Monetize software licenses and custom applications
- Increase machine turnover through digital service
- Competitive time-to-market

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Easy onboarding and management

Using IoT devices in the context of digitalization could not be more diverse. This makes it all the more difficult for IT managers to ensure secure operation of the devices and to maintain an overview of interfaces, hardware levels and software configurations at all times. New IoT devices can be easily onboarded using a factory-installed script. Following first-time operation and connection to K-PORT, the cloud-based all-in-one solution, the IoT device is automatically assigned to a customer or machine using a stored profile. An intuitive GUI makes it possible to view the communication status of the five services across all IoT devices and to manage the master data and parameters of individual devices.

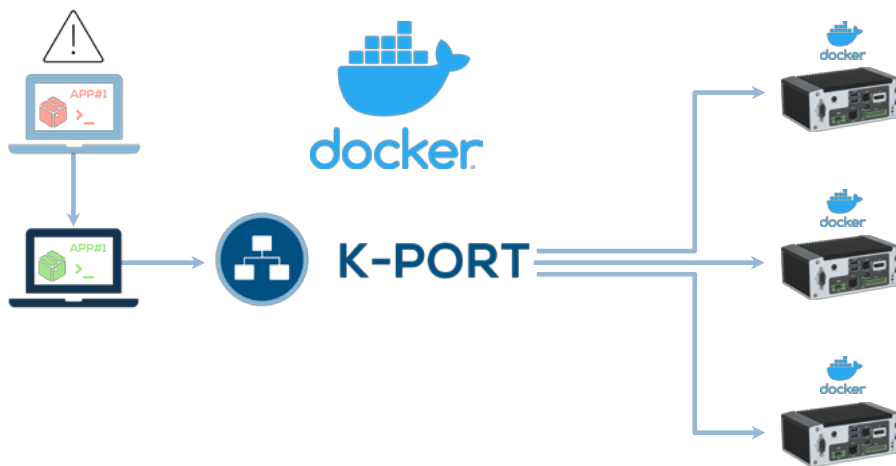# Increase reaction speed with remote maintenance 24/7

Globally distributed IoT devices are used in a variety of ways in the field, such as machine adapters or for AI-supported monitoring of applications. With K-PORT's integrated health monitoring, important IoT device parameters (memory and CPU usage, connection status, operating time temperature, etc.) can be continuously monitored. If disruptions occur, the service must be able to react quickly to prevent connection interruptions or data loss. The K-PORT *remoting* service allows technicians to remotely control the device using RDP (Remote Desktop Shell) or SSH (Secure Shell) services. RDP allows remote access to the device's console, while SSH allows remote access to the graphical connection to the desktop. If the cause of the malfunction is at machine level, the machines and systems connected to the IoT gateway, server or PC in the customer network can be accessed in encrypted form using a temporary virtual network (VPN tunnel) connection. The K-PORT *VPN service* not only allows the programming software to be operated or parameterized on the respective controller (PLC), but also allows several service technicians to work together remotely on one machine regardless of location.
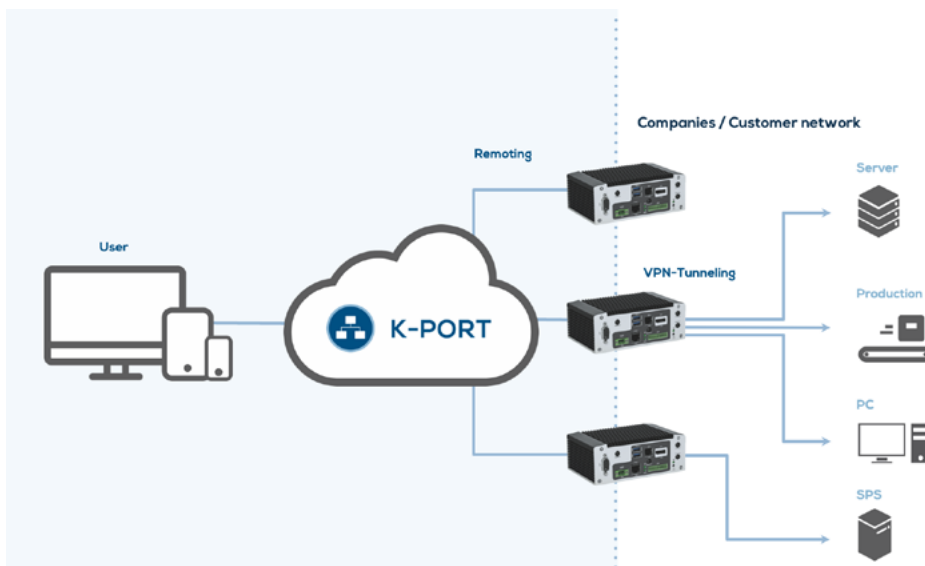
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Reliably roll out applications as mass updates

Managing device fleets with hardened operating systems or customer-specific applications, which are usually packed in Docker containers, presents IT managers with major challenges in terms of cost, security and complexity when it comes to configuration and deployment. The combination of K-PORT *Container Management* and *SecureOS* services enables simple fleet management by connecting templates for the configuration of a SecureOS operating system with the images of the docker containers for the application and assigning them to a connected device. If changes are made to the configuration or image as a result, K-PORT can determine which devices are affected by an update and at the same time allows to select the devices to which the update is being rolled out. This enables a step-by-step geographical or machine-related implementation or even scenario tests to minimize risks before a global deployment takes place.

Advantages for users

Scalable

Secure

Resources-saving

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