

KontronGrid

The Complete IoT Device Management Solution for Edge Devices

KontronGrid is specifically developed to manage and simplify the deployment of container-based and native applications for edge devices. With the ISO 27001-certified software, you lay the foundation for your individual IoT solutions: monitor your devices in the field, minimize downtime with fast remote support, and carry out fleet updates at the operating system and application level securely with just a few clicks. This allows you to manage thousands of device connections – globally and at a glance.

Added value for device and component manufacturers



OT managers

- Minimize complexity for OT teams and free up OT resources
- 24/7 overview of globally distributed device fleet
- Meet the highest security standards and compliance requirements
- Enable flexible and secure remote support



Software architects

- Secure data exchange with comprehensive end-to-end encryption mechanisms
- Continuous deployment during operation
- Easily build and manage containers for scalable applications



Product managers and owners

- Monetization opportunities through software licensing and custom application solutions
- Increase machine turnover through digital service
- Ensure competitiveness through accelerated product development cycles and faster time to market

Your advantages



Complete IoT solution

Benefit from seamless integration through software and hardware. With KontronOS and matched hardware, you benefit from speed of integration and cost efficiency without compromise.



Flexible and scalable

Our solution grows with you. Manage fleets of any size worldwide and scalable down to the machine level.



Start right away

Forget about hidden costs or additional development. With our system, you can get started right away and experience fast onboarding.



Less complexity, more efficiency

Manage and update your edge devices with just a few clicks – easily and automatically.



Boost development team productivity

We provide the infrastructure your development team needs to focus on application development.



Maximum security, minimum effort

With our company-level ISO 27001 certification and simplified entry to IEC 62443 certifications, you can secure your projects at the highest level.



„By using Docker containers, KontronGrid enables easy device management and fast software updates to quickly respond to security vulnerabilities and provide security updates.“

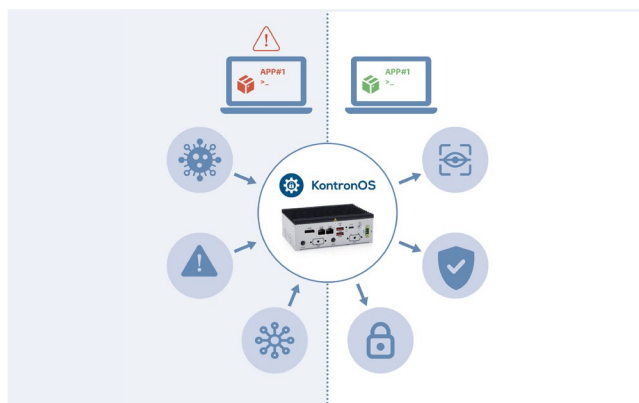
Patrick Bauer, Design and Development at VOLLMER WERKE Maschinenfabrik GmbH

This is where KontronGrid is used



Global monitoring

KontronGrid makes it much easier to manage, monitor and operate your fleet of devices. This means that you can keep track of thousands of device connections at any given time.

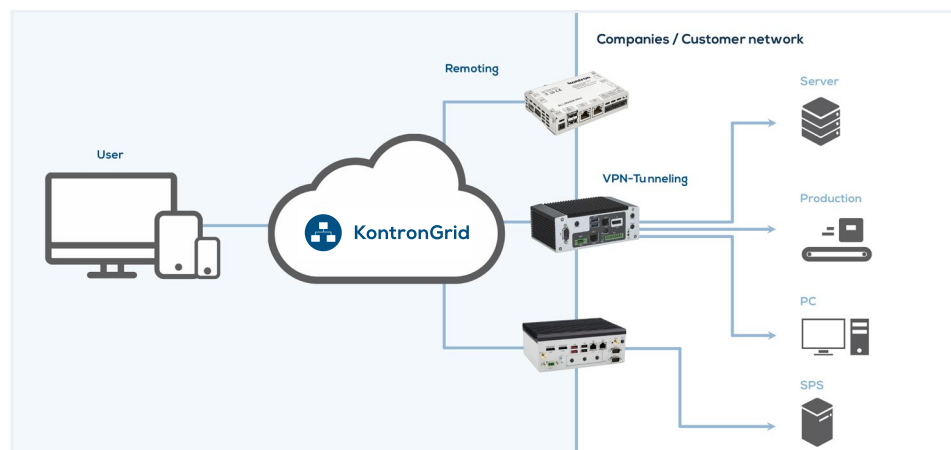
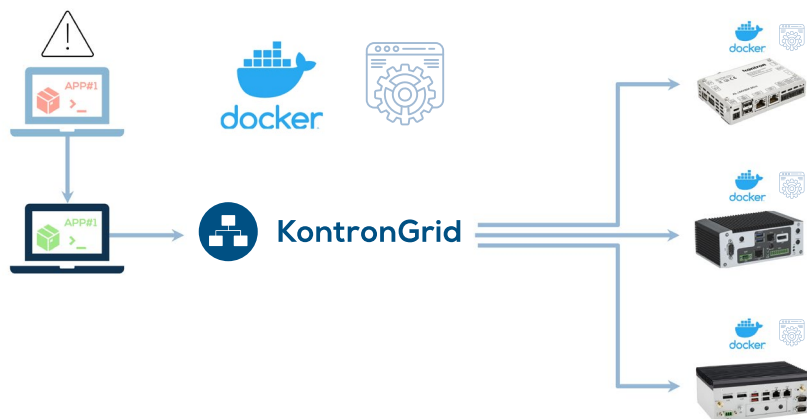


Secure operating system (optional)

Secure your Intel® x86 and Arm® based devices against critical vulnerabilities with a Yocto Linux®-based operating system. Two redundant operating system partitions provide the highest availability and a secure management interface for updates and deployment.

Rolling out updates

Container-based or native applications can be updated without manual effort using configurable image templates in KontronGrid. Test and roll out update scenarios on edge devices distributed worldwide.



Remote support

For service cases, use KontronGrid to remotely access your machines quickly and efficiently. Set up a temporary VPN connection at control level to significantly increase your support depth.



Get started right away with the ManagedEdge IoT Bundle:

From the quick start of an initial test environment to the secure series operation of small to medium-sized device fleets, all the way to building a CRA- and NIS-2-ready IoT infrastructure — all in one bundle.

The secure, customized Linux® OS for edge devices – KontronOS

A core component of the ManagedEdge IoT Bundle is the secure, Kontron hardware-optimized, Yocto Linux®-based KontronOS operating system, which comes pre-installed to ensure enhanced security and optimal performance for IoT devices and customer applications.

- › **Comprehensive security architecture:** KontronOS effectively protects against compromise, unwanted external access and uncontrolled updates
- › **Intuitive user interface:** Simple configuration of network zones and settings
- › **Advanced physical security:** Additional security layer for device and user login data as well as an integrated security mechanism at BIOS level, supported by TPM 2.0 on x86 and HAB for Intel® x86 or Arm®
- › **Network protection:** Integrated firewall enables precise definition and protection of network zones against unwanted access, as well as the separation of operating system and application
- › **Secure Boot:** Secure execution of approved and digitally signed operating systems
- › **Proactive security check:** Continuous CVE/CWE analysis of software components against known vulnerabilities and patches
- › **Management of bootloader and BIOS updates**

Proven IoT hardware from Kontron

Kontron's proven embedded hardware provides a solid foundation for a comprehensive and secure IoT infrastructure. The standard IoT stack includes both x86- and Arm®-based gateways, ranging from compact devices for demanding automation solutions to cost-optimized and flexible systems, and powerful platforms for particularly demanding IoT edge and AI applications.

Beyond the IoT bundle, we also offer additional options such as modified standard solutions and fully customized designs, ensuring you get the perfect solution for your specific requirements.



Level Up: Unlock digital services for equipment and machinery with the EquipmentCloud® customer portal

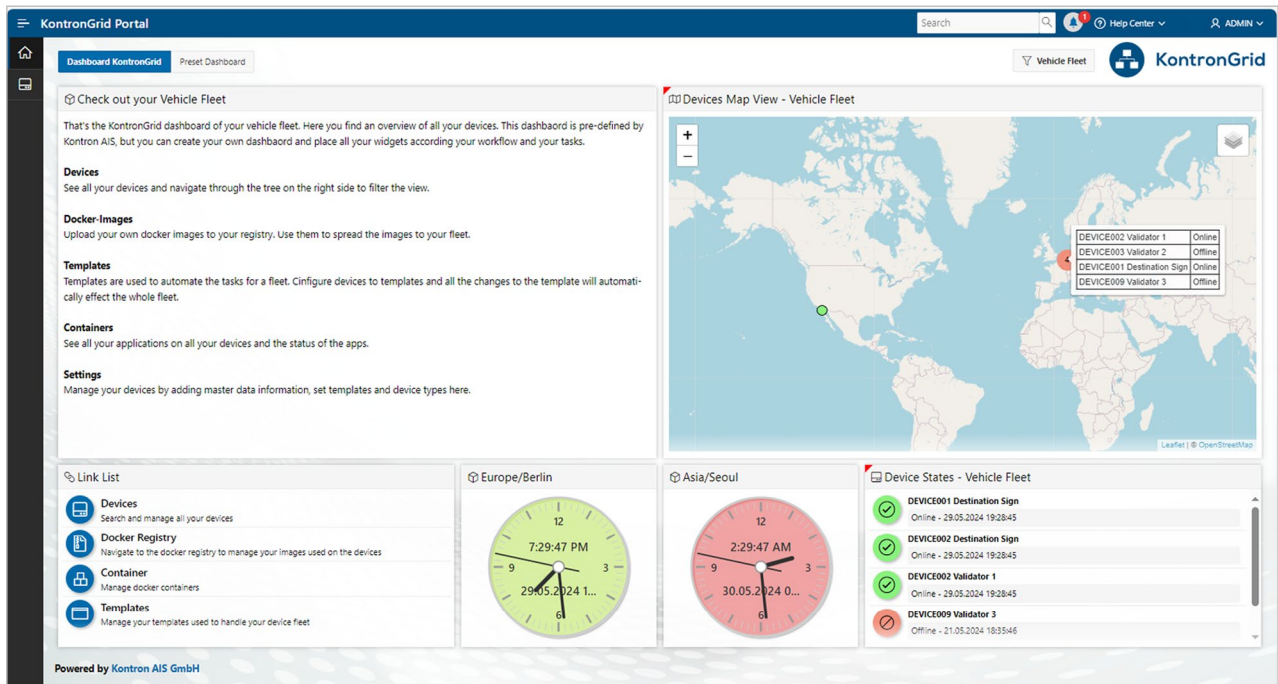
EquipmentCloud® is our customer portal for mechanical engineering. It enables you to streamline your processes, consolidate information in one place, and open up new data-based business models. Keep your customers happy with a personalized customer portal with custom branding, customizable user rights, and multi-language support, and give your digital services for equipment and machinery a new home.



EquipmentCloud®

Proven added value for service and support in mechanical engineering

- › **Cost efficiency:** Reduce hardware, installation and maintenance costs
- › **Minimize travel costs:** Significantly reduce the need for on-site visits
- › **Efficient troubleshooting:** Save time with direct and targeted problem resolution
- › **In-depth support:** Immediate assistance down to the device level
- › **Act proactively:** Perform preventive actions through predictive analysis



Features



Device management made simple

- › **Condition monitoring:** Continuously monitor the state of all IoT devices
- › **Cloud-based management:** Centralized control of globally distributed edge devices in a cloud environment
- › **Easy onboarding:** Quickly and easily integrate new IoT devices



Efficient application management

- › **Automated deployment:** Efficiently manage and deploy Docker images or native applications to device fleets via command line interface (CLI)
- › **Customer applications:** Encapsulate images in containers to enable optimized distribution or native installation of applications, supported by software sets consisting of bootloader or BIOS, operating system, and app package
- › **Mass updates:** Efficiently schedule and roll out complex updates to device fleets using templates

- › **Docker Compose integration:** Extensive configuration and easy orchestration of image sets



Flexible remoting

- › **Centralized access management:** Manage desktop and remote access, including RDP and SSH
- › **Secure remote connection:** Set up secure remote connections for efficient support



Temporary VPN tunneling

- › **Temporary access:** Direct access to machine and system networks, secure, controlled, and logged
- › **Direct connection & tunneling:** Simple setup of direct network connections with comprehensive monitoring and logging
- › **Unlimited Teamwork:** Multiple experts can access a system in parallel for efficient problem solving

Kontron AIS GmbH

Kontron AIS GmbH sets the benchmark in industrial software – for more than 30 years and with an experienced team of over 250 employees. The proven software products and customized digitalization solutions enable machine and equipment builders as well as factory operators to break new ground in automation and secure long-term competitive advantages. Together with its customers, Kontron AIS implements worldwide cross-industry, intelligent digitalization strategies and solutions for the smart manufacturing of tomorrow.

As a subsidiary of the Kontron AG, Kontron AIS offers integrated, end-to-end IoT concepts consisting of hardware and software as well as worldwide project management, service, and support thanks to a global network.



Software Development



Consulting and Requirement Engineering



Project Management and Training



Supply of Hardware for Control and IT Systems



On-Site Installation and Commissioning



Flexible, Global Service and Support

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