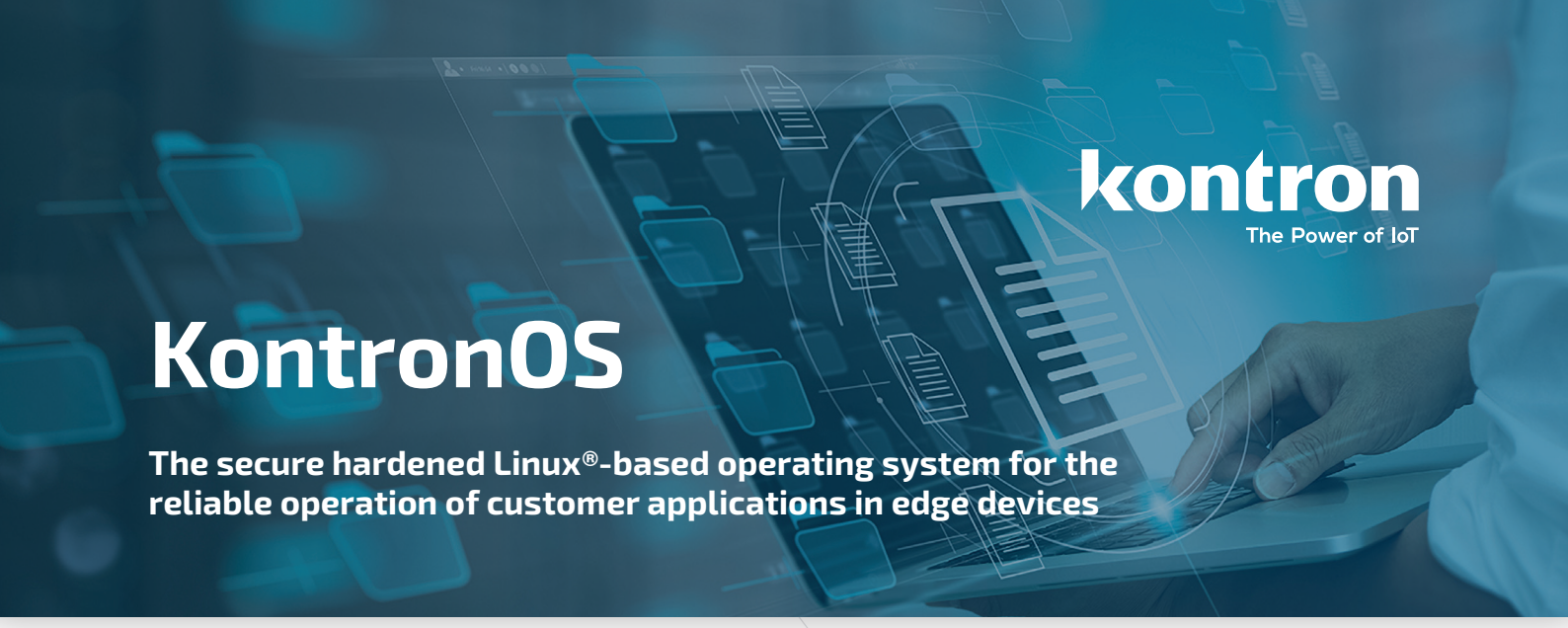

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The Power of IoT

KontronOS

The secure hardened Linux®-based operating system for the reliable operation of customer applications in edge devices

Secure and flexible basis: Individually configurable Yocto platform with comprehensive cyber security concept

KontronOS is a secure hardened Linux®-based operating system developed specifically for edge devices. It provides a secure platform for the operation of customer applications and guarantees maximum security and up-to-dateness over the entire product lifecycle. Thanks to its architecture, KontronOS effectively isolates applications and thus protects against potential attacks. This creates a secure environment in which software can be developed and rolled out independently.

Regular updates ensure that the operating system is always up to date, even during operation, without interruptions, even over-the-air. This not only ensures maximum security, but also a fast time-to-market for customer solutions.

With a focus on security, KontronOS is reduced to the essentials and is flexibly customizable. It is ideal for use in demanding industrial environments and supports remoting functionality to reliably monitor and manage devices in the field. KontronOS is used by component and device manufacturers as well as in mechanical engineering and impresses with its stability and tailor-made customization options for individual customer requirements.

Companies benefit from an extended service life for their devices and seamless management of operating statuses. This ensures the reliable operation of your IoT solutions and provides a future-proof foundation for your applications.

Advantages of KontronOS

- Highest operating time
- Reduced to the essentials
- Ready-to-go for customer applications
- Platform-independent and easily customizable
- Integrates seamlessly into the KontronGrid IoT device management system
- Optimized for Kontron IoT hardware

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The most important advantages of KontronOS

Cyber security

- Minimalist, hardened and customizable operating system
- Regular KontronOS security release cycles with pen tests
- Secure boot / HAB and encrypted OS partition
- Auto-configured, IP table based firewall
- All connections are encrypted
- Separation of operating system and application

Support for customer-specific applications

- Container-based or native
- Secured by restricted permissions for container aemon and/or mandatory access control
- Secure Boot / HAB and encrypted OS partition
- SDK available for creating your own application packages

Update mechanism

- Redundant boot loader and OS partition
- Encrypted OTA or offline updates
- Delta updates for low bandwidth transmission

Fail-safe mechanism

- Automatic fallback process
- Signature check of all updates (boot loader, operating system and applications)

Optimized with KontronGrid

- Centralized, secure IoT device management
- Update provisioning of applications and/or KontronOS and roll-out
- Management of customer applications as containers or application bundles
- Remoting and VPN

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Contact us for a customized offer!

Contact

Kontron Technologies GmbH
Industriezeile 35
A-4020 Linz

T: +43 732 941 670
info@susietec.com
www.susietec.com

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