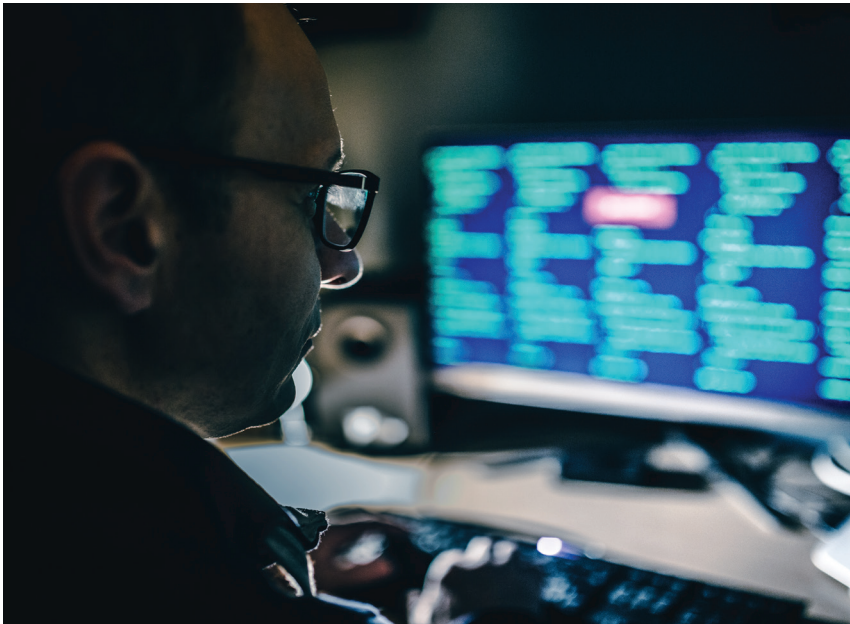


Weather observation network security

Providing trustworthy and reliable weather data for a better connected world



Weather data is essential for critical functions in society. Today's weather observation networks demand technology that provides integration and data security – without compromising accurate and reliable data.

As a leader in weather, environmental, and industrial measurement technologies, our customers count on Vaisala to ensure reliable and trustworthy data. Product and software security is the foundation of the data we enable for our connected world.

Our edge gateways and new sensor devices have built-in security based on industry-leading best practices and mainstream technologies, ideally suiting them for emerging use cases such as smart cities, transport systems, and timely weather nowcasting.

IoT security based on industry-leading best practices

We are developing "secure by design" Internet of Things (IoT) solutions to protect the devices and data from unauthorized usage, manipulation, and control. This is achieved by leveraging features such as:

Verification of the integrity of the device firmware by using a secure boot mechanism.

Strong and unique initial device identities for IoT devices to ensure they are legitimate, allowing them to connect securely to different cloud services and other IoT devices.

Ensuring the trustworthiness of firmware updates for in-market devices by signing and encrypting the device firmware.

Securing the communication between the IoT device sensors, gateways, and the device management platform in all deployments.

Comprehensive IoT device security

We are delivering key security capabilities in our edge gateways and sensors. Our advanced approach to IoT security enables:

- Cryptographic key management to ensure the effective use of cryptography for operations such as digital signing and encryption, which is vital for enabling secure boot
- Secure device manufacturing to prevent malicious activities such as the creation of cloned and counterfeit products
- Secure firmware updates in a scalable, easily maintainable solution with firmware from a trusted source, plus firmware image encryption
- Secure IoT device management using Public Key infrastructure-based solutions to enable secure device management



Vaisala has a proven track record of product leadership in the weather, environmental, and industrial measurement domain. Our software and technologies are tested and proven in the harshest, most demanding, and unforgiving conditions – in countless field installations around the world as well as in relentlessly focused software security events.

As we move to an even more connected world, we are utilizing the most advanced IoT security technology to provide secure and reliable edge gateways and sensors that our customers can trust.

Learn more about the benefits of weather observation network security.

vaisala.com

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