PrimeKey
Solution Brief

Zero-trust manufacturing and IoT lifecycle security

Enabling connectivity in industrial IoT product lines requies bridging the security gaps between hardware production, software development and in-the-field operations. However, tight budgets and product lifecycles, hardware constraints, and untrusted supply chains make it near impossible to maintain strong security throughout the device lifespan.

Keyfactor and PrimeKey have developed an integration that makes it easy and affordable for device manufacturers to embed trusted identities into their IoT devices at scale, on the manufacturing floor and securely update firmware and crypto throughout the device lifecycle. Together Keyfactor and PrimeKey enable robust PKI-based security solutions for IoT devices at any scale, in any environment.

Most IoT devices today are manufactured within untrusted remote facilities, then deployed across unsecure networks and environments with limited or no connectivity. PKI is a proven solution to secure IoT devices in these high-scale, complex deployments, but without the right PKI, secure hardware appliance and identity lifecycle management tools, it can be difficult to deploy, not to mention expensive.

When integrated with PrimeKey, the Keyfactor Control platform can leverage EJBCA Enterprise as a secure and trusted PKI backend and the Industrial RA, Identity Authority Manager (IdAM) to issue and provision certificates to connected devices and applications. The joint solution simplifies IoT identity management, so our customers can deliver to market faster, mitigate device vulnerabilities, and prevent costly warranty recalls.

KEYFACTOR

PrimeKey®

For product and engineering teams, PrimeKey EJBCA Enterprise and the Industrial RA IdAM offer a turnkey PKI solution ideally suited for IoT deployments. By combining EJBCA and IdAM with the Keyfactor IoT developer toolkit and identity lifecycle management platform, the joint solution makes it possible to embed certificates into devices at any stage during development, manufacturing or initial activation.

Using the Keyfactor C-Agent – a lightweight and customizable IoT client – developers can implement custom functionality onto devices such as key generation, key storage, or digital signature verification. The Keyfactor Control platform then enables security teams to easily manage, update and protect device identities throughout the product lifecycle – even for devices with limited or unreliable connectivity.

The Keyfactor Control platform and PrimeKey EJBCA Enterprise can be hosted on-premise, in the cloud or across distributed IoT ecosystems. Together the products offer a truly end-to-end approach to IoT security that combines device identity, certificate management, code signing and PKI operations into one integrated solution.

Benefits

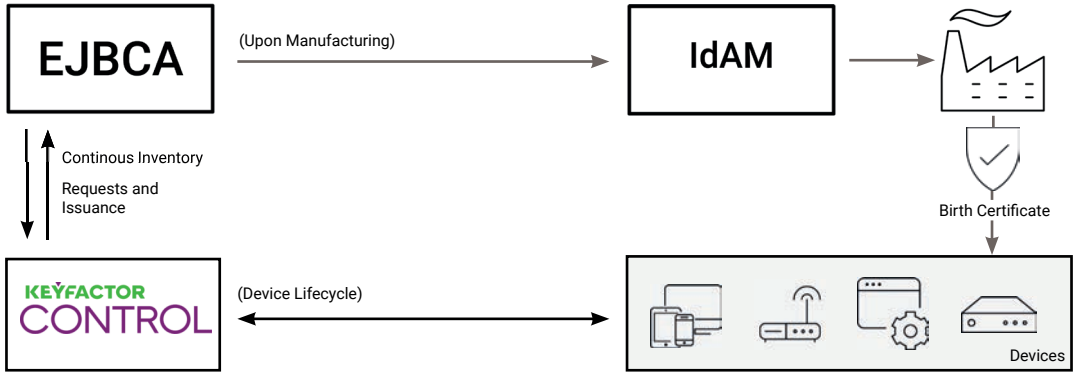
Faster time to market
Meet security requirements without disrupting existing development and manufacturing processes.

High-assurance identity
Embed trusted identities into every device at any stage during the development, manufacturing or deployment process.

Security by design
Prevent costly warranty recalls and reputational damage that result from device vulnerabilities or crypto-incidents.

IoT identity automation
Avoid the need for in-field technicians to physically access remote devices.

Crypto-agility at scale
Rapidly and easily identify and revoke, re-issue or replace millions of keys and certificates.



About Keyfactor
Keyfactor is the market leader for cryptographic identity management. Powered by an award-winning PKI as-a-Service platform for certificate lifecycle automation and IoT device security, we enable enterprises and device manufacturers alike to manage and protect digital identities at the speed and scale of their business. More than 500+ global customers trust Keyfactor to protect their company from breaches, outages and failed audits caused by mismanaged cryptography.

About PrimeKey
PrimeKey is one of the world's leading companies for PKI and digital signing solutions. Deployed as software, appliance or cloud, our products EJBCA and SignServer deliver the capability to implement an enterprise grade PKI system ready to support solutions such as IoT, e-ID, e-Passports, authentication, digital signatures unified digital identities and validation. PrimeKey has its head office in Stockholm, Sweden.

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