

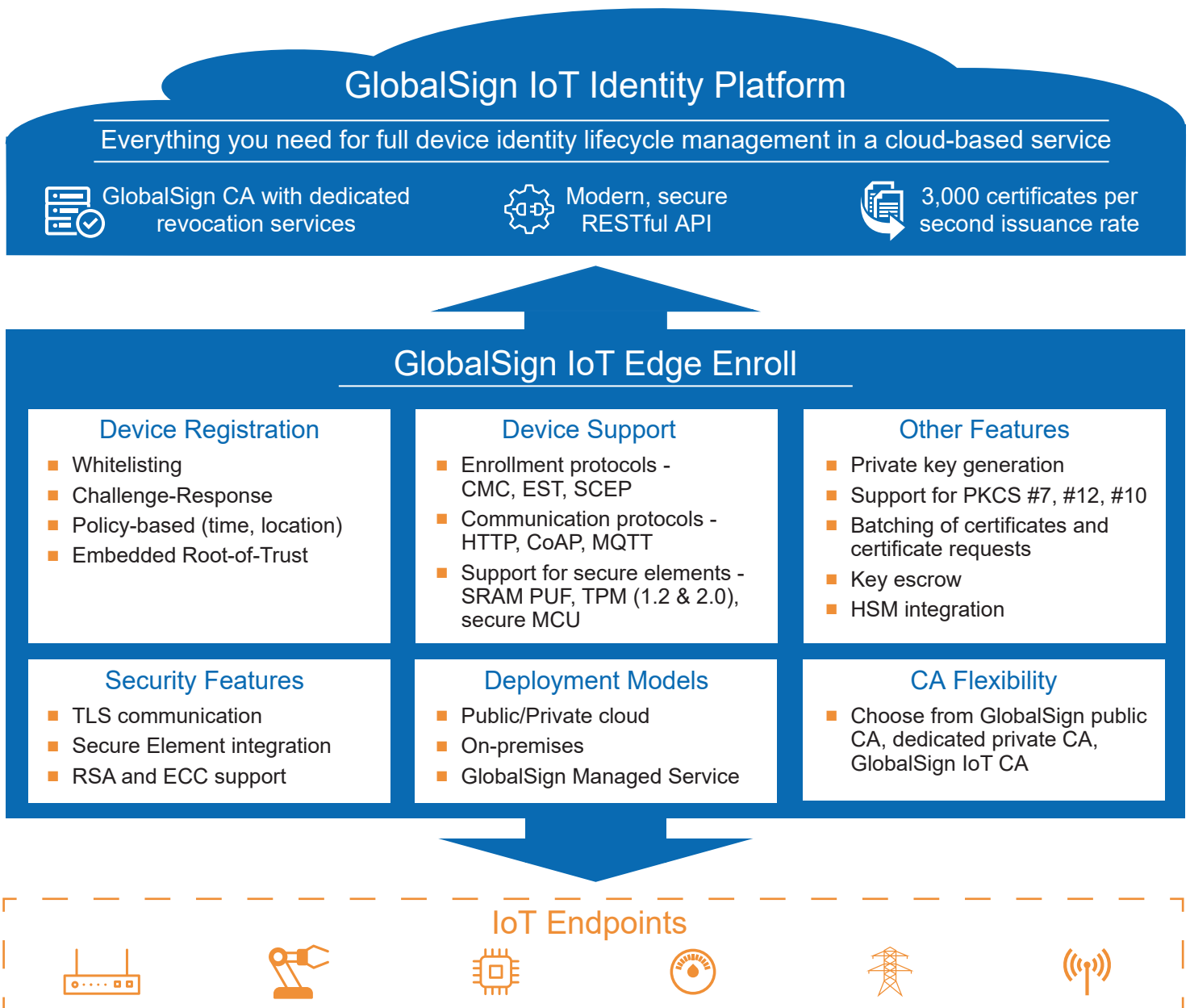
IoT Edge Enroll



Provision and Manage PKI-based Identities on IoT Devices

Part of GlobalSign's IoT Identity Platform, IoT Edge Enroll is a full-fledged enrollment client used to provision and manage PKI-based identities for IoT devices of all types. Providing these unique identities to all devices enables trust within the ecosystem, allowing for mutual authentication between devices and systems, preventing spoofing or imposter devices, and protecting communications from eavesdropping or tampering.

IoT Edge Enroll provides a flexible and scalable way to deploy these identities and maintain them throughout the full device lifecycle, with added features such as device RA, certificate lifecycle management, and expanded protocol support.



Key Features & Benefits

Device Registration Authority (RA)

- Control which IoT devices are allowed to receive certificates via a user-uploaded Device Whitelist.
- Get full control, via a separate REST API interface, over adding, maintaining and deleting part or whole of a whitelist.
- In a multi-gateway scenario, whitelisting also prevents mistakenly and/or repeatedly issuing identities to unauthorized devices.
- This functionality can be turned on and off as desired.

Security Features

- TLS communication (optional) is available between IoT Edge Enroll and the certificate-requesting IoT devices.
- Communication between IoT Edge Enroll and other components of GlobalSign's IoT Identity Platform is always protected by mutual TLS (cannot be disabled).

Device Support

- Support for various device enrollment protocols: CMC, EST, SCEP
- Support for various communication protocols: HTTP, Secure CoAP, MQTT
- Support for secure elements: SRAM PUF, TPM (1.2 & 2.0), secure MCU (e.g., STMicro STSAFE, Renesas RX)

About GlobalSign

GlobalSign is the leading provider of trusted identity and security solutions enabling businesses, large enterprises, cloud service providers and IoT innovators around the world to secure online communications, manage millions of verified digital identities and automate authentication and encryption. Its high-scale Public Key Infrastructure (PKI) and identity solutions support the billions of services, devices, people and things comprising the Internet of Things (IoT).

Other Features

- IoT Edge Enroll is able to generate public-private keypairs on behalf of IoT devices using standard PKCS#12 format. This is especially useful for resource-constrained devices that cannot do this on their own. Private keys are subsequently deleted from the server.
- For larger devices, IoT Edge Enroll supports the standard PKCS#7 format that accepts a public key and returns a X.509 certificate – ensuring that no private keys are stored on IoT Edge Enroll or anywhere outside the device.
- Renewal of device identities is supported via a dedicated re-enrollment API endpoint, which validates an already provisioned identity and re-issues it with a new, valid certificate.

Flexible Deployment Models

- IoT Edge Enroll can be deployed on a standard Linux instance, and is then configured with the specific customer account information.
- Deployment can be on a standalone physical server, a Linux virtual machine, or in any public or private cloud platform, such as Amazon Web Services, Microsoft Azure, etc.

CA Flexibility

- Device certificates can be issued from GlobalSign's public CA, private dedicated or vendor CAs, or GlobalSign's IoT CA

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