# IoT Identity Platform

## Full Device Identity Lifecycle Management for IoT Ecosystems

GlobalSign's next-generation IoT Identity Platform is flexible and scalable to issue and manage billions of identities for IoT devices of all types. Using Public Key Infrastructure (PKI) as the core identity mechanism, the IoT Identify Platform can serve the varied security use-cases of the IoT across all verticals, including manufacturing, agriculture, smart grid, payments, IoT gateways, healthcare and industrial ecosystems.

The IoT Identity Platform supports the full device identity lifecycle, from initial provisioning (both greenfield and brownfield deployments) to lifetime maintenance through to final sunsetting, decommissioning or transfer of ownership.  Giving each device/endpoint a unique identity means they can authenticate when they come online and throughout their lifetime, prove their integrity, and securely communicate with other devices, services, and users.



Lifecycle diagram: GlobalSign IoT Identity Platform — Sunset, Manufacture, Program, Deploy, Manage
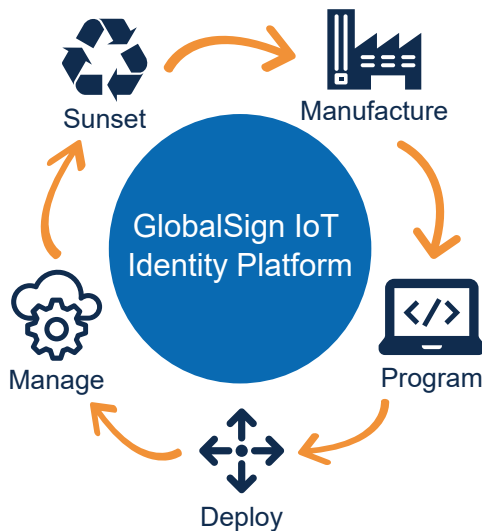
| Greenfield identity provisioning via direct integration into manufacturing lines or upon first boot post-deployment | Ongoing identity management, including device registration, identity suspension, renewal and transfer |
|---|---|
| Brownfield identity provisioning via OTA software update | Transfer of ownership, identity revocation during device decommissioning or repurposing |

## KEY FEATURES

- **COMPLETE DEVICE IDENTITY LIFECYCLE MANAGEMENT**
  Provision unique identities during manufacturing or after devices are in the field with ongoing identity management services, including device registration, suspension, transfer, and revocation

- **PKI-BASED, STRONG, AND UNIQUE DEVICE IDENTITIES**
  Leverage standards-based PKI to authenticate and establish trust between devices and services (e.g., cloud platforms), and ensure the integrity, source and encryption of all data transmitted within your ecosystem

- **SECURE**
  The IoT Identity Platform is delivered via GlobalSign's WebTrust-audited robust PKI infrastructure with global data centers, redundancy, and high availability

- **SCALABLE**
  Modern, secure RESTful APIs support high volume and throughput, capable of issuing millions of certificates per day and more than 3,000 certificates/second

- **TRUST OPTIONS**
  Support for complex PKI hierarchies, with dedicated intermediates and public or private trust, along with custom certificate metadata and flexible certificate formats or extensions, accommodate virtually any ecosystem and industry

- **MULTIPLE INTEGRATION OPTIONS**
  Connect your endpoints to the IoT Identity Platform directly via APIs, through our full service enrollment client - IoT Edge Enroll, or with one of our partnerships with third party device and identity management solutions (e.g., Arm Mbed)

- **INTEROPERABILITY**
  GlobalSign enables trust through the entire IoT stack, via partnerships on the device side with secure elements (e.g., TPMs, PUFs) and secure MCUs, and on the cloud side with virtually every cloud platform provider (e.g., Arm Mbed, AWS IoT, Azure IoT Hub)

- **FLEXIBLE BUSINESS MODELS**
  Choose from a variety of business models, including subscription-based, seat-based, and certificate issuance-based

**GlobalSign.**
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## GlobalSign
## IoT Identity Platform

Everything you need for full device identity lifecycle management in a cloud-based service

### 🔒 Secure

- GlobalSign owned and operated datacenters, high availability, and cross-geo redundancy
- FIPS 140-2 Compliant HSMs
- Dedicated revocation services
- RSA and ECC support

### 📊 Scalable

- Modern, secure RESTful API
- High volume and throughput
- Millions of certificates per day
- 3,000 certificates per second issuance rate

### 🤝 Trust Options

- CA options – GlobalSign public CA, dedicated private CA, GlobalSign IoT CA
- Supports complex PKI hierarchies
- Flexible certificate formats or extensions
- LDevID and IDevID certificates

## GlobalSign IoT Identity Platform Integrations

The IoT Identity Platform needs a way to communicate with the end devices to enroll, deliver, validate, and revoke their identities. There are three options for this and the methods can be combined depending on your environment.

### 🔌 IoT CA Direct

This is for environments that just need a device identity issuing engine. In-house systems communicate with GlobalSign's services via API and handle device enrollment and lifecycle management.

### ☁ IoT Edge Enroll

This is for environments that need a full-fledged enrollment client with features like device Registration Authority, certificate lifecycle management, and expanded protocol support.

### ❄ IoT CA Connect

This is for environments that are using a third party device and identity management solution (e.g., Arm Mbed) which handles device enrollment and lifecycle management.

### IoT Endpoints

### 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).

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