



Product Brief

# IoT Edge Controller

The Internet of Things (IoT) affects many industries as connected devices streamline business processes and add entirely new revenue streams for global organizations. By creating strong trusted relationships between things, systems, data, and people, organizations can introduce more personalized, automated, and enhanced experiences for their customers and generate new revenue streams.

It is important for companies to have a trusted and future proof Identity for their connected users and things. Critical business decisions are made from the intelligence gathered from both users and things. In addition, things have a trusted and unique identity feature set on the same level as customer or employee identities and engage in their own complex identity relationships. These things authenticate and authorize themselves to cloud, mobile, social, and legacy platforms and request or provide information, send commands, and help manage complex automated process.

The ForgeRock IoT Edge and SDK is available as open source software under the Apache 2.0 License, enables customers and partners to build industry-specific solutions with additional functionality, and ultimately drive higher levels of interoperability. The open source offering allows businesses to include digital identities as part of products, and drive adoption across a variety of hardware options, significantly accelerate time-to-market of new IoT solutions. Things, Gateways, and Edge computers come in many flavors from many different vendors and making it open source allows these vendors to pre-integrate a trusted Identity compatible with a market-leading Identity and access management platform.

## Product Features and Benefits

ForgeRock's IoT Edge delivers identity-driven security by creating trusted identities and ensures the ongoing authenticity and authorization of connected devices, their transactions and data streams. Built using open standards, IoT Edge features contextual security, scales to meet IoT-level demands, and enables customers to optimize operating costs of IoT implementations. IoT Edge addresses the key problems of identity in 'things' including auto onboarding of devices, offline capabilities, and lifecycle management.

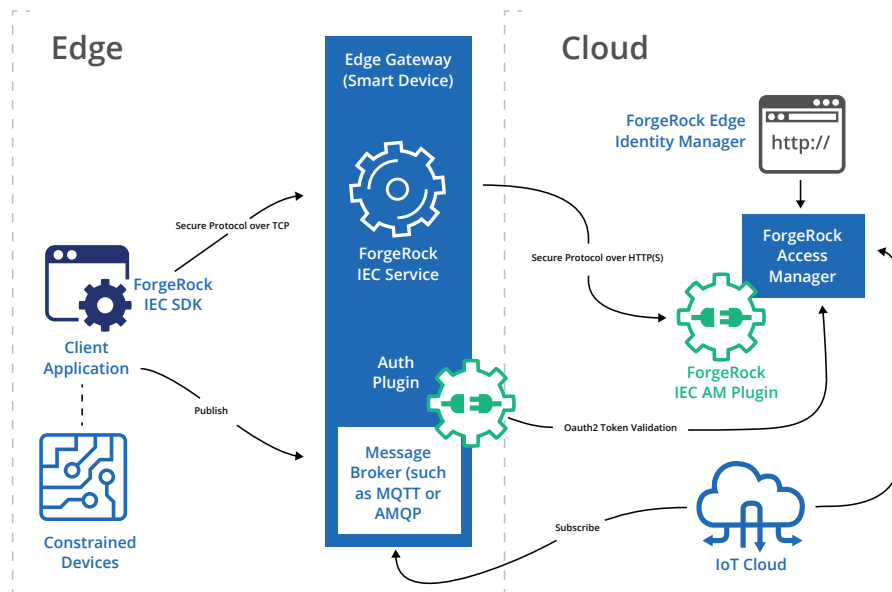


Figure 1: This image shows the high level architecture of ForgeRock's IoT Edge.

ForgeRock's IoT Edge offers complete end-to-end security for IoT deployments. It ensures the integrity of IoT devices and their communication using secure, standards-based tokens instead of hard coded usernames and passwords, or managing thousands of individual PKI certificates.

**In addition the following key features are included:**

- > Secure auto onboarding without human intervention
- > Ability to deliver secure ecosystems at the edge (devices, services, users)
- > Offline use
- > Lifecycle Management
- > Self-authentication, as well as authentication of attached sensors and services that can retrieve standard OAuth2/OIDC JWT tokens
- > Device Fine-Grained Authorization similar to any user
- > Create a relationship between a trusted user and trusted device using OAuth2 device flows for IoT
- > SDK included to accelerate integration
- > Integrations with leading IoT Platforms (AWS IoT, Azure IoT, Google IoT)
- > Extensions, Plug Ins, or Guides for leading message brokers using standards based tokens for Authentication and Authorization
- > Support for hardware based root of trust (OPTEE-ARM), certificate, file based, and other 3rd party credentials
- > Southbound Device Visibility
- > Runtime Driven Configuration
- > OTA Update Capable
- > Flexible Device Registry

The IoT Edge software runs on smart edge devices, and provides the privacy, integrity, and security required for devices to automatically register as identities in the ForgeRock Identity Platform. Once a device has registered, IoT Edge enables that device to obtain a configuration from

AM, Request OAuth2 access and ID tokens, be paired with a user using the OAuth2 Device Flow and to call customisable scripts in AM. Delivered with an Apache 2.0 Open Source model IoT Edge is customizable to meet specific device and architectural needs.

## More Information?

Please contact us for a demonstration and more information on getting started with ForgeRock's IoT Edge.

### About ForgeRock

ForgeRock, the leader in digital identity, delivers modern and comprehensive Identity and Access Management solutions for consumers, employees and things to simply and safely access the connected world. Using ForgeRock, more than a thousand global customer organizations orchestrate, manage, and secure the complete lifecycle of identities from dynamic access controls, governance, APIs, and storing authoritative data – consumable in any cloud or hybrid environment. The company is privately held, and headquartered in San Francisco, California, with offices around the world. For more information and free downloads, visit [www.forgerock.com](http://www.forgerock.com) or follow ForgeRock on social media.



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