ENEA

DATASHEET

# Qosmos LibDevice 2.0 for Device Classification

Accurately profile LAN/WLAN-connected devices to more effectively control network access and manage device-related security risks.

## Key Benefits

**Designed for Easy Embedded Use**

- Available as a Software Development Kit for optimal integration into third party networking and security software
- Uses a cloud-hosted fingerprint matching service to simplify deployment and maintenance

**Innovative Classification Methodology**

- Ingests metadata derived from device-related traffic across multiple layers of the network stack
- Uses millions of combinations of rules with an exhaustive device fingerprint database for the best precision

**Comprehensive & Granular Classification Data**

- Features a continuously updated library of over 50 000 devices
- Profiles consumer, enterprise, and industrial devices
- Enhances basic information like MAC address and DHCP-, TCP- and UpnP-related data with precise identification of device type, manufacturer, operating system and OS version

**Attractive Business Model**

- Flexible subscription service with solutions tailored for start-ups, small and medium-sized businesses, and large enterprises
- Optional private cloud solution for large enterprises
- Backed by strong SLAs and Enea's top-rated customer support

The dynamic nature of networks has always made it challenging to achieve full visibility into the users and devices connected to a LAN or WLAN at any given moment. But, it has become especially so today as work-from-home and bring your own device (BYOD) practices drive shadow IT, and consumer and industrial IoT devices redefine the enterprise network landscape.

The Enea Qosmos LibDevice 2.0 software module was developed to provide networking and security solution providers with the device visibility they need to navigate such challenging environments.

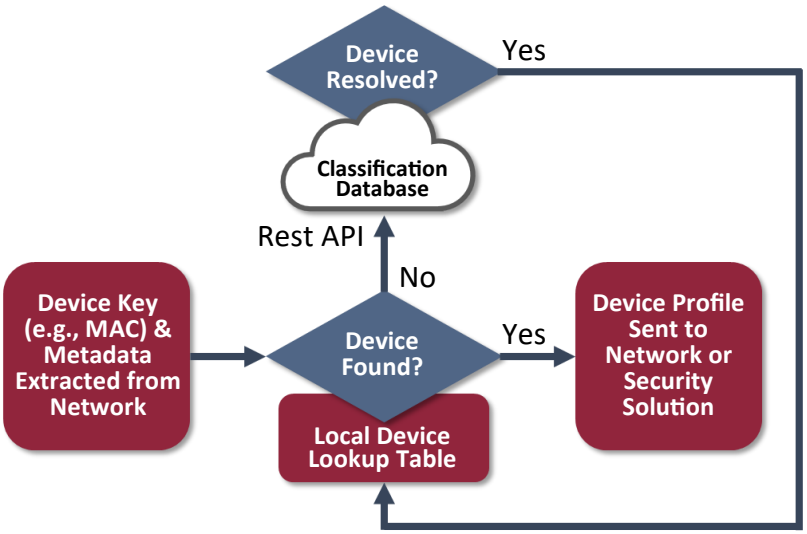
LibDevice 2.0 determines what type of device is connected to a network. It provides detailed and highly accurate profiles of connected consumer, enterprise, and industrial devices that include:

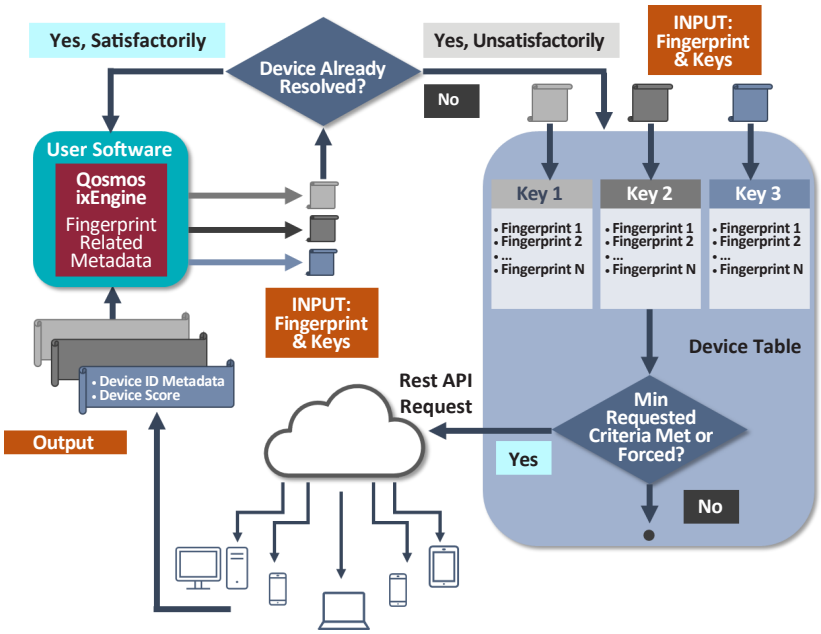
- Device type
- Device manufacturer
- Operating system
- OS version
- A confidence score for the classification

This device intelligence is used in a wide variety of solutions. It is used in Network Access Control solutions for creating and enforcing access policies. It is used by Network Performance Management solutions to create device-specific KPIs or device -dependent routing or content delivery rules. And it is used by cybersecurity vendors to detect connections by devices with known security vulnerabilities, and to provide valuable context for threat hunting and forensics.

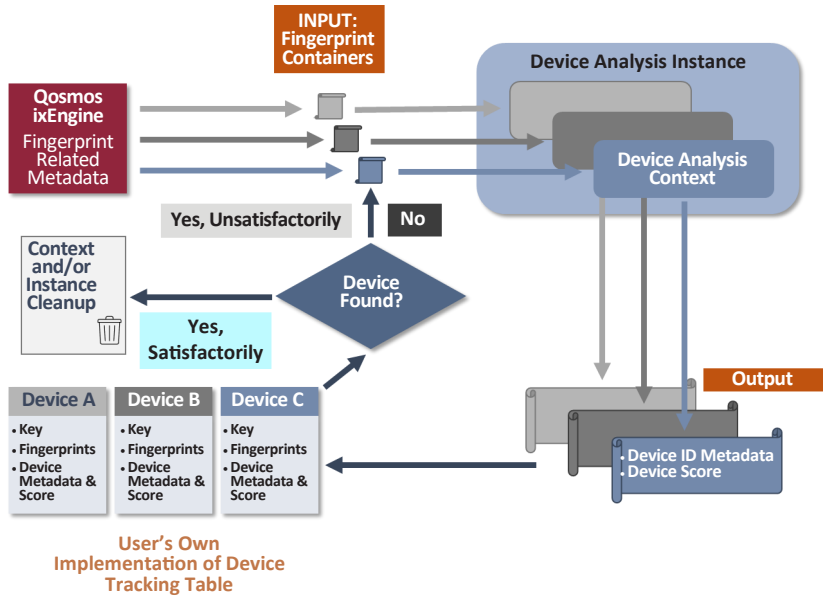
And, because the service is fulfilled via an orchestration Software Development Kit (SDK) and cloud API, it enables solution vendors to enhance their products with advanced device fingerprinting and profiling technologies without the time, cost and risk associated with developing and maintaining such technologies internally.

**Device Profiling Service**






**Simple Mode**
**Typical Workflow**




**Advanced Mode**
**Typical Workflow**

## How it Works

The device profiling is done through a cloud-based matching system, and orchestrated via an embeddable SDK.

### 1) Extract Required Metadata

The first step is to extract the device metadata (a.k.a., fingerprints) needed for classification from the network (including a device key such as a MAC or IPv4/IPv6 address).

These network fingerprints are available as standard outputs from the Qosmos ixEngine®, and can optionally be enriched with in-house data depending on the subscription plan chosen.

### 2) Determine if Device is Already Classified

The next step is to see if the device has already been classified. This is accomplished by cross-referencing the device key with a local device lookup table (a default table comes with the LibDevice SDK, but a custom device tracking table may be used).

### 3) Send to Cloud for Classification

If there is no match, the device key is logged in the device table, and the metadata is sent via a Rest API to the cloud service. The cloud service includes a metadata processor and a fingerprint database.

Processed metadata is cross-referenced with the fingerprint repository to make an identification.

### 4) Receive Device Profile

If a device is successfully identified, the device classification (along with a confidence score for the identification) is returned via the API.

This classification data is then added to the local device table using the device key, and made available to the relevant networking or cybersecurity solution.

## Two Integration Modes

The LibDevice module can be integrated in two modes: Simple or Advanced. The Simple Mode follows the general workflow outlined above.

The Advanced Mode offers additional flexibility for different architectures, and extended configuration parameters. These parameters enable the user to contextualize the device analysis with user-defined criteria.

## Subscription Options

Three types of licenses are available:

- Startup
- SME
- Large Enterprise

### Startup

- Supports up to 1M requests per month
- Hosted on public cloud

### SME

- Supports up to 15M requests per month
- Hosted on public cloud

### Large Enterprise

- Private cloud offer
- Kubernetes containers delivered to customer

For further information, please contact us:
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