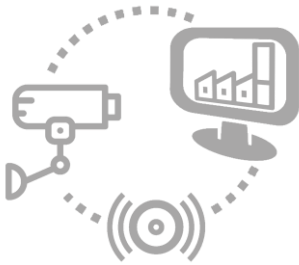


EMBEDDED BLOCKCHAIN For Professional IoT

The need



Digital Clone

(real time vision of the systems, monitoring systems, data historization for predictive maintenance, big data, reporting, ...)



Critical systems management

(tele exploitation, alarm, preventive maintenance...)



Mobile and real-time access

(smartphone, tablet and other connected mobile objects...)

In addition to basic needs, there will be induced needs:

- security
- Integrity
- immutability
- low TCO
- customer profiling
- quality improvement
- predictive and preventive maintenance
- process optimization
- ...

Our Solution

PRIVATE PERMISSIONED BLOCKCHAIN

Why this type of technology?

- To answer to the needs of **security, immutability and integrity**
- To meet the needs of **mobility** and **low TCO**, Kalima is a **private embedded blockchain** with a **small footprint** (memory, CPU and bandwidth) and **without mining** (to reduce the cost of use)

KALIMA ADDED VALUE

- ✓ **Multi level processing:** edge, fog and cloud
- ✓ **Complex processing and machine learning** allowed at all levels
- ✓ **Application development time** divided by 2.5
- ✓ **Simplicity of use**
- ✓ **Mobiles clients available**
- ✓ **Historical qualified data:** secure your data
- ✓ **Faults tolerance:** guarantee continuity of service
- ✓ **Low latency real time event management**
- ✓ **Data synchronization**
- ✓ **Green technology:** battery and bandwidth saved

Divide by ten, or more, infrastructure and energy costs related to your Internet of Things solutions

EMBEDDED BLOCKCHAIN KALIMA



1/ BLOCKCHAIN WITH NOTARY NODES WITHOUT MINING

Kalima's technology is based on "notary nodes": our algorithm provides uniqueness consensus with fast response time and low resources consumption, to be "at the edge" of a very low TCO. It does not require mining which has a high-latency and spends an immense amount of energy.

2/ PRIVATE BLOCKCHAIN (PERMISSIONED BLOCKCHAIN)

Kalima allows to implement private and distributed blockchains with secure administration.

3/ FAULT TOLERANCE

To meet the need for high availability, the Founder of Kalima, André Legendre, has integrated a failover mechanism between notarial nodes. Communication between hubs is therefore completely independent.

4/ PARTIAL ACCESS TO DATA

To secure data access, André Legendre has created partial access to data according to users with predefined authorization.

5/ LIGHTWEIGHT WITH A LOW FOOT PRINT

A notary node can work in a Raspberry Pie Zero and a client node can work on a processor as small as the Lego robot.

6/ OPEN AND SECURE API

Kalima provides an open open-source public API that allows any developer to integrate third-party services. Kalima publishes open, secure and easy-to-use APIs for Java, JavaScript and Python; cross-platforms (Android, IOS, Windows 10, Linux).

TECHNOLOGY DISTRIBUTED LEDGER

KALIMA SYSTEMS interconnects people, objects and services