Kalima Blockchain Introduction

What is Kalima Systems ?

Kalima System is a blockchain, a peer-to-peer distributed ledger technology (DLT) secured by a hash chain (*a repeated application of a cryptographic hash function to a given data asset*) dedicated to the internet of things. In simpler terms, Kalima System is a secured distributed ledger for your industrial IoT solutions.

- Kalima Blockchain allows to securely collect, transport, store and share Industrial IoT trusted data's in real time with devices, services and mobile workers.
- Ensure trust in your IoT data with Kalima Blockchain, providing historical, immutable and tamper-proof data.

How does it work ?

Kalima Systems is a permissioned blockchain which means that an access is required to be part of the blockchain.

Gateway and devices, are authorized from the Kalima blockchain administration interface to connect to the blockchain. Then, they have permission to transmit and receive all data concerning the domains to which they have been pre-authorized. This allows a trust layer for any devices that are connected to your IoT network.

Kalima Nodes

Nodes are the core of a Kalima Blockchain, they can be hosted on the edge, on the cloud or in mobility.
There are two types of nodes:

- **Notary nodes**

Notary nodes are the main element in charge of validation of all transactions in the blockchain, they ensure traceability, integrity and immutability of all transactions. You can install as many notary nodes you want to set up a Kalima Blockchain with a minimum of four notary nodes.

- **Client nodes**

Client Nodes are used to synchronize the data to which they are authorized, interact with that data and create new transactions. A client node can have several forms, including mobile applications or gateways.