



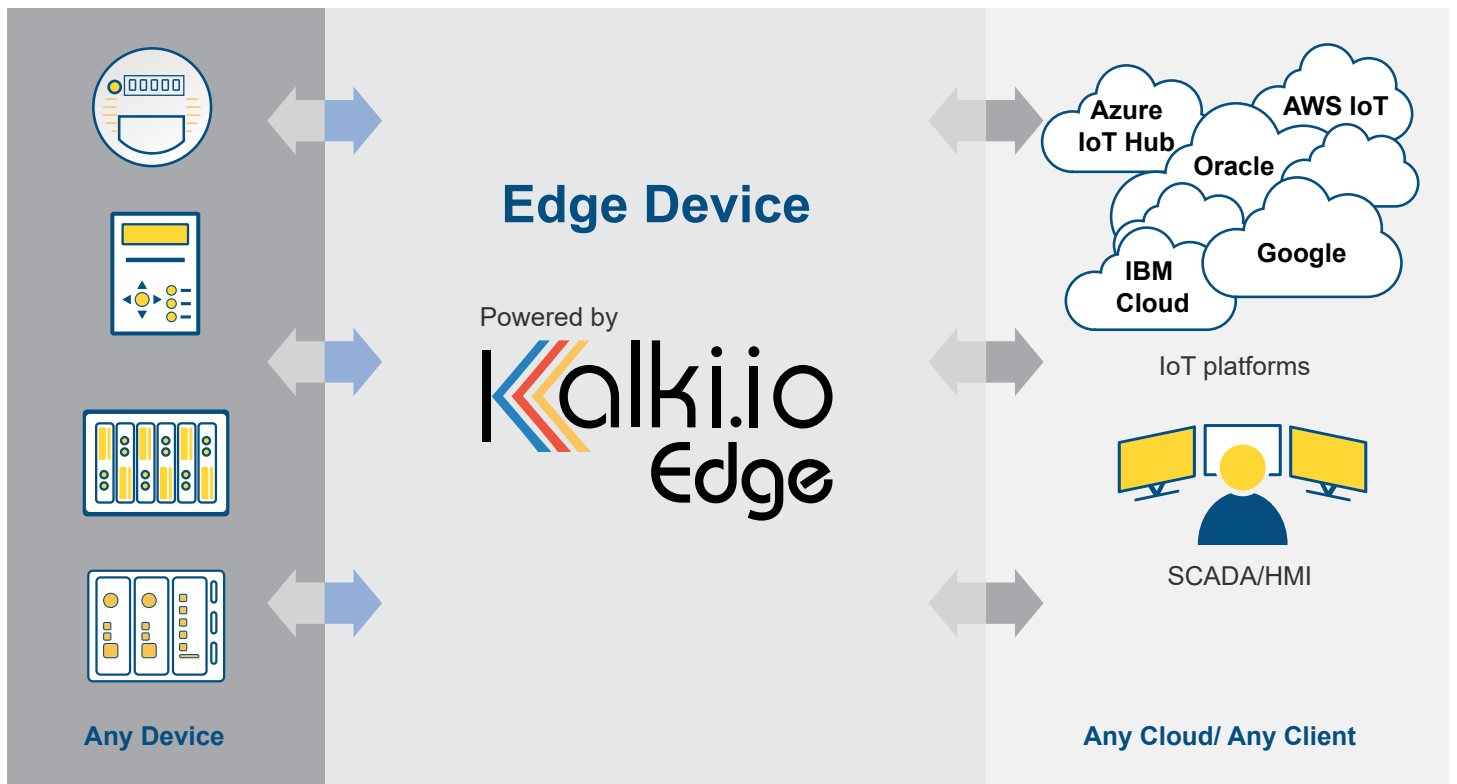
## Edge Data Acquisition Software

KALKI.IO Edge earlier known as SyncConnect simplifies data acquisition at the edge from field devices such as Sensors, Controllers, PLC, Metes, RTUs, Machines, IEDs and other similar devices regardless of the protocols it support. Kalki.io Edge is a software gateway supporting multiple protocol conversion and exchange of real-time and historical data with external system on a secure environment. Software support a large number of commercial, industrial and utility automation applications protocols widely used.

KALKI.IO Edge together with identity management system (IAM) system in Kalki.io cloud provides an exhaustive role-based access control in order to enable secure access of field devices -data, software, configuration & settings. Kalki.io Edge with a robust and highly scalable architecture is designed to run on high end server grade hardware to resource constrained devices with low memory footprint. It allows to deploy on embedded computers, edge devices, on premise servers, sensors as well as various low footprint communication routers out there in the field.

KALKI.IO Edge software enables residential, commercial, industrial and utility system integrators and OEM's to engineer solutions that improve efficiency, improve asset life and reduce maintenance cost based on Cloud and IIoT technologies.

### HIGH LEVEL ARCHITECTURE



## FEATURES

### Data Collection



- Supports large number of field proven protocol adapters
- Intolerable with sensors, controllers, meters and other devices in field using of protocol libraries

### Security



- TLS 1.2 / 1.3 based communication security
- Secure role-based access control using x.509 PKI standard
- Communication protocol specific security support

### Data Processing



- Real time streaming of data
- User configurable data processing
- Plugs in with your Edge data processing software
- Can easily Integrate with third party ML & AI Engines

### Scalability



- Scales with large number of devices and data
- Scales with edge device hardware capability
- Containerized services

### Data Storage



- Store data periodically or on event basis
- Time series data storage for optimal performance
- Database management options

### Manageability



- Remote device management, maintenance & configuration service
- REST API support to configure Edge device from your software or third party cloud
- Over the air firmware and patches updates

### Cloud Connectivity



- Amazon AWS
- Microsoft Azure
- IBM cloud
- MQTT
- OPC UA

### Flexibility



- Deployable on your hardware and OS
- Choose best of breed hardware suitable for your application
- Integrate with multiple systems using single deployment instance

## BENEFITS

### System Integrators



Reduce your integration cost with plug and communicate with any device using field proven protocol adaptors

Seamless sharing of data with multiple systems/ IoT platforms

### Device Manufactures



Improve equipment/device reliability by pro-active maintenance

Optimize your support and maintenance cost using remote access and management

Enhance your equipment to leverage IoT opportunities

### Asset Owners

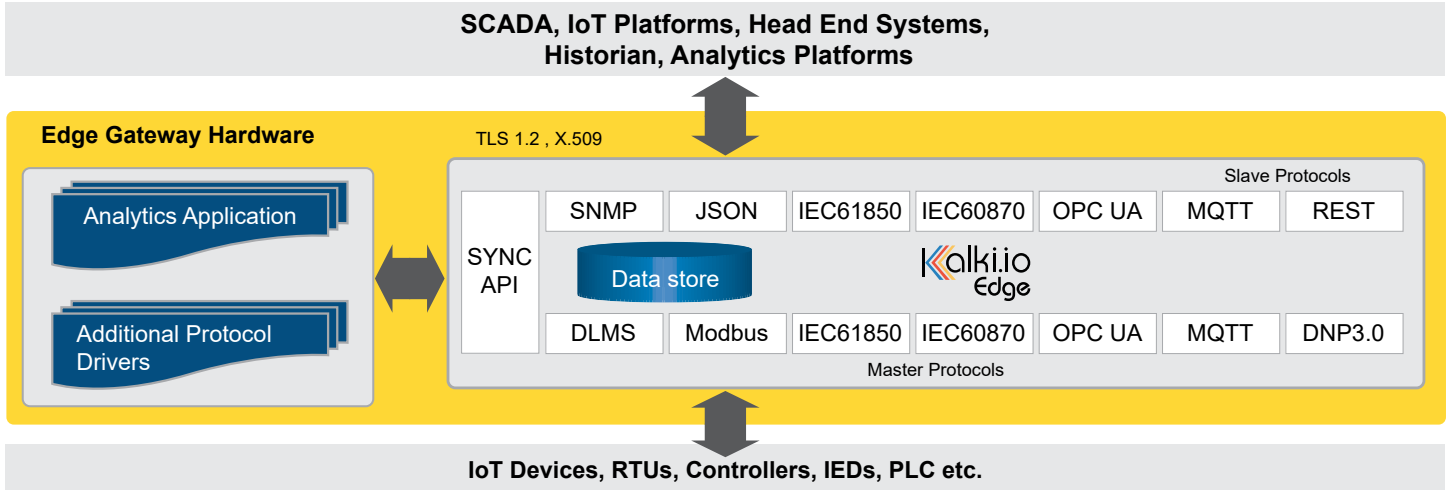


Centralized monitoring of your asset securely to ensure high ROI

Minimize equipment damage and reduce replacement cost

Lower overall cost of ownership for monitoring and maintenance

## SOFTWARE COMPONENT



## PROTOCOL SUPPORTED

Utilities	Industry 4.0	Smart City	IoT Platform Connectivity	DER/ Renewables
IEC 61850 DNP3 / IEEE1815 IEC60870-5-101/104 IEC60870-5-103 IEEE C37.118 DLMS-COSEM ICCP /IEC 60870-6 IEC 61400-25 IEEE2030.5 SNTP, SFTP + many more	Modbus ANSI Mbus BACnet Ethernet IP* Lon Talk* ControlNet* OPC UA/ XML	Modbus ANSI Mbus BACnet DLMS OPC UA/ XML OCPP MQTT	OPC UA MQTT Amazon AWS Microsoft Azure Kalki.io	Sun-Spec Modbus IEEE2030.5 DLMS-COSEM MQTT OCPP IEC61850 DNP3 / IEEE1815 IEC60870-5-101/104

\* On request (Visit our website for latest availability dates)

See extensive list of Kalkitech protocol support <https://kalkitech.com/support/sales-support/protocols/>

## VALIDATED EDGE HARDWARE

**KALKITECH**

**WELOTEC**

**ADVANTECH**

**IEI**

**RAD**


**AXIOMTEK**

**ADLINK**


**LOGIC**

**RASPBERRY PI**


**Packages**




Deb




RPM




Docker

 **aws marketplace**



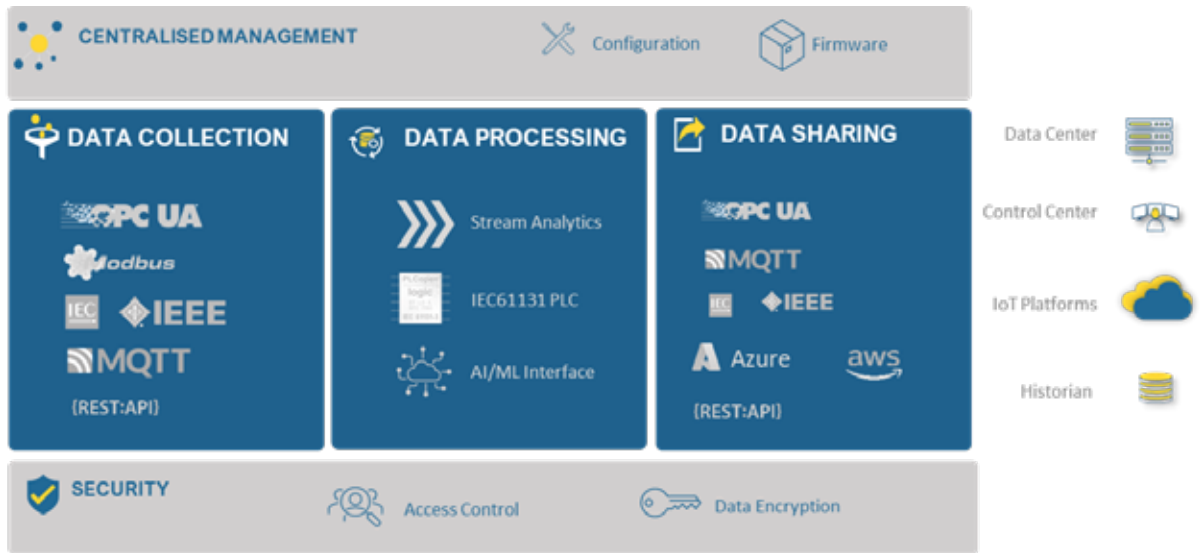
Get it from  
Microsoft Azure  
Marketplace



intel  
partner  
Gold IoT  
Solutions

See list of certified hardware here.

<https://kalkitech.com/ready-platform/>



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## APPLICATION PACKAGES

	DER	Utility	Industrial	Protocol Gateway
	KIOE2300	KIOE200/2000/3000	KIOE2400	KIOE2500
<b>Protocol Support</b>				
DNP3/ IEC104/ IEC101/ Modbus/ DLMS/ SunSpec/ IEEE 2030.5/ OCPP	✓			
IEC61850 Ed1 & Ed2#/ DNP3/ IEC 104/ IEC 101/ IEC 103*/ Modbus/ DLMS		✓		
Modbus/ Ethernet IP/ BACNet IP/ DNP3/ DLMS/ SFTP/ SNMP/ SMTP			✓	
Select as required				✓
<b>Storage and Archival</b>				
Influx DB	○		○	
SQLite	✓	✓	✓	✓
<b>M2M and IOT Platform Integration</b>				
AWS	✓	✓	✓	✓
Azure	✓	✓	✓	✓
MQTT	✓	✓	✓	✓
OPCUA	○	○	○	○
<b>Edge Analytics Support</b>				
Simple Logic Engine	✓	✓	✓	✓
IEC 61131 Logic Engine	○	○	○	○

✓ Included      ○ Optional

# Max IED support  
 KIOE2000- 20 IEDs  
 KIOE3000 - 150 IEDs