



A simple to use, automatic data collection and transport utility with a small system footprint that supports raw-data collection from Industrial IoT, enterprise ICT, web applications, weather and environmental devices.

# KRONOMETRIX IOT GATEWAY

### EASY PLUG-IN

Kronometrix IoT Gateway is a software package, designed for ARM architecture, single board computers, like Raspberry Pl. It contains all needed components to connect, record and transport different data from ICT applications, services to IoT sensors and devices, Includes:

- the operating system
- data recording module
- transport utilities and configurations

The original recorded data is temporarily stored on the gateway, for backup

purposes, up to 90 days, at the same time delivered to Kronometrix SaaS, for analysis and visualization. The gateway Includes, by default a number of data recorders, specific for different jobs and responsibilities. The recorders are light software probes running and fetching data from various sources using several communication protocols.

With a small system footprint
Kronometrix IoT Gateway is easy
to configure and operate, fetching
data from various devices

Based on open-source software, is simple to connect and manage, using the SSH2 standard secure communication protocol. You can use TCP or Serial connection to manage Kronometrix IoT Gateway.



It keeps track of essential performance, availability and inventory metrics from web applications, operating systems, enterprise services or several IoT sensors. The gateway is offering immediate access to raw data and transport utility services for Kronometrix SaaS or 3rd parties.

You can easily connect Kronometrix IoT Gateway to your private, internal network, using a cable based or wireless network, with a dynamic or static IP address to start immediately to collect data from your applications and sensors. Using simple, commodity MicroSD memory cards, the raw data is always available to access, or recover, if necessarily.

#### **TECHNICAL SPECIFICATIONS**

Hardware Raspberry PI 3B+, 4B\*

**Connectivity** RS-232, RS-485, USB, RJ45, 802.11b/g/n

Protocols TCP, UDP, HTTP, HTTPS, SNMP, SERIAL ASCII POLLED

MODBUS-RTU, MODBUS-ASCII, MODBUS-TCP, BACNET\*

Sampling rate Default 60 seconds, configurable

Realtime Clock NXP PCF2129

**Installation** Bootable software image compatible MicroSDXC 64GB

#### **Advantages**

Everything ready and configured to connect and record data from web applications, indoor air quality sensors, industrial IoT devices, or other weather, and environment sensors, using standard connectivity protocols. From environmental air quality to ICT enterprise and industrial IoT, Kronometrix IoT Gateway is the most cost effective solution to collect and transport data.

### **FEATURES**

#### **RECORDERS**

#### **OPERATING SYSTEM**

- sysrec Overall system performance
- cuprec Per CPU data recorder
- diskrec Per disk data recorder
- nicrec Per NIC data recorder
- hdwrec System inventory data recorder
- procrec Process/Task data recorder
- faultrec Fault Management data recorder \*

#### **NETWORK MANAGEMENT**

- snmprec Ethernet and SAN Switch \*
- netrec TCP, UDP data recorder

#### **INTERNET SERVICES**

- certrec X.509 certificate recorder
- direc Per directory recorder
- svcrec IMAP, SMTP, POP3, HTTP, TCP(Any), UDP
- **ntprec** NTP server recorder
- smtprec SMTP server data recorder \*
- imaprec IMAP server data recorder \*

#### **MIDDLEWARE**

- httprec NGINX, Apache, Tomcat, PHP-FPM HTTP/HTTPS server analyser
- dbrec MariaDB, MySQL, PostgreSQL, Redis \*
- ivmrec Java VM memory statistics
- webrec HTTP/HTTPS response time analyser

#### **INDUSTRIAL IOT**

- axisrec AXIS security and video surveillance data recorder
- bacrec Building management BACnet data recorder \*
- blrec Bluetooth Low Energy data recorder \*
- rs485rec Industrial RS-232, RS-485, MODBUS data recorder
- wsrec General weather station recorder RS-232/USB



The term Data Source ("DS", "ds") means any system connected to a public or private network with a valid IPv4 or IPv6 address being a server, a data logger, a graphic workstation, an iPad or a sensor bound to a single Kronometrix data subscription.

# COMPATIBILITY LIST - 1/2

#### **ENVIRONMENT**

| AirThings WavePlus                 | Indoor Air Quality humidity, air temperature, TVOC, RADON  | BLE 4.2 (BETA) |
|------------------------------------|--|----------------|
| Tongdy Sensing Technology IAQ-G01  | Indoor Air Quality, humidity, air temperature, CO2, VOC  | Modbus-RTU     |
| Tongdy Sensing Technology MSD-1618 | Indoor Air Quality, humidity, air temperature, CO2, TVOC, PM2.5, PM10                            | Modbus-RTU     |
| Tongdy Sensing Technology MSD-0918 | Indoor Air Quality, humidity, air temperature, CO2, CH2O, TVOC, PM2.5, PM10                      | Modbus-RTU     |
| Vaisala GMW95                      | CO2, Temperature and Humidity Transmitter  | Modbus-RTU     |
| Vaisala AQT420                     | Air quality Transmitter NO2, SO2, CO, O3, humidity, air pressure and temperature, PM2.5 and PM10 | Modbus-ASCII   |
| WEATHER                            |  |                |
| Fine Offset Electronics WH-1080    | Non automatic weather station  | Serial         |
| Vaisala QML201C                    | Data Logger  | HTTP, Serial   |
| Vaisala HMP155                     | Humidity and Temperature Probe HMP155  | Serial         |
| Vaisala WXT530                     | All-in-one weather transmitter, rain, wind, temperature, humidity, air pressure                  | Serial         |
| SECURITY VIDEO SURVEILLANCE        |  |                |
| Axis Communications Q1615-E MkII   | High-speed outdoor network surveillance camera   | HTTP/HTTPS     |
| Axis Communications Q6052-E PTZ    | Outdoor-ready PTZ with 36x zoom, focus recall and Lightfinder                                    | HTTP/HTTPS     |

# COMPATIBILITY LIST - 2/2

#### **INDUSTRIAL AUTOMATION**

| Phoenix Contact                     | QUINT-UPS 24   | Modbus-RTU               |
|-------------------------------------|--|--------------------------|
| SferaLabs Strato Pi Mini Board      | Power supply, with surge and reverse polarity protection and realtime clock  | Raspberry Pl<br>3B,3B+,4 |
| SferaLabs Strato Pi Base Board      | Power supply, with surge and reverse polarity protection, realtime clock and RS-232, RS-485                                | Raspberry Pl<br>3B,3B+,4 |
| SferaLabs Strato Pi UPS Board       | Power supply, realtime clock, RS-232, RS-485, integrated uninterruptible power supply, with external lead-acid 12V battery | Raspberry Pl<br>3B,3B+,4 |
| MEMORY CARDS                        |  |                          |
| Transcend High Performance 330S     | 64GB MicroSDXC memory card   | A2, V30, U3              |
| Transcend High Endurance            | 64GB MicroSDXC memory card   | UHS-I U3 / C10           |
| Transcend Ultimate 633x             | 64GB MicroSDXC memory card   | UHS-I U3 / C10           |
| SanDisk High Endurance              | 64GB MicroSDXC memory card   | V30, UHS-I U3            |
| SanDisk Extreme Plus                | 64GB MicroSDXC memory card   | A2, V30, U3              |
| SanDisk Extreme Pro                 | 64GB MicroSDXC memory card   | A2, V30, U3              |
| CABLES AND AUXILIARES               |  |                          |
| FTDI Chip USB-RS485 Converter Cable | FT232R   | USB RS485                |

### PRICING

**Kronometrix IoT Gateway** is available as a software image, compatible with Raspberry PI 3B/3B+ single-board computers. Includes 1 year, 8x5 standard support. Additional maintenance and support packages can be purchased from <a href="mailto:sales@kronometrix.com">sales@kronometrix.com</a>

| ITEM             | DESCRIPTION  | TYPE                 | PRICE            |
|------------------|--|----------------------|------------------|
| Media            | Kronometrix IoT Gateway Software Image 64GB, 100DS license included                                | Annual<br>Commitment | 249 € /<br>month |
|                  | Standard Support Monday - Friday, 9AM-5PM, including phone and email. SLA 24 hours                 | 1 Year               |                  |
|                  | Installation and setup. Technical support (Email, Phone) to deploy and use Kronometrix IoT gateway |                      |                  |
|                  | 10 Incident cases per month  | Included             |                  |
|                  | 1 Year Software updates  | Included             |                  |
| Premium Support  | Premium Support 24x7, including email, phone, video chat. SLA: 6 hours                             |                      |                  |
|                  | Remote access to check and maintain your Kronometrix IoT Gateway installation                      | Ontional             | 29,95 €          |
|                  | 100 Incident cases per month   | Optional             | /DS /month       |
|                  | Live private support channel (Skype, Wire, VoIP)   |                      |                  |
| Embedded systems | Integrate and deploy Kronometrix IoT Gateway to other systems or setups                            | Optional             | Call us          |

Please note that the prices are exclusive of value added tax. For large installations, please contact us for more information.

Annual Commitment: the period of time you plan to use the product, minimum 1 year. You can cancel anytime, but you need to pay up to 1 year. Billed every month. The term **Data Source** ("DS", "ds") means any system connected to a public or private network with a valid IPv4 or IPv6 address being a server, a data logger, a graphic workstation, or a sensor bound to a single Kronometrix data subscription.





