

# Smart Automation Platform

http://www.eva-ics.com



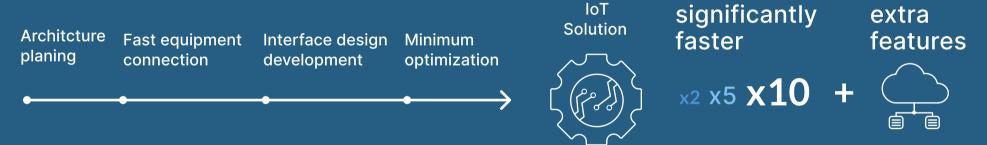
open-source platform for Industry 4.0 system development



## We Help You to create Smart Solution for:



## with EVA ICS



### without EVA ICS from scratch



#### Logic

EVA ICS LM PLC component processes events from connected EVA ICS nodes. Events can be handled using user-defined rules, which execute defined logic macros. Macros can send alerts, execute actions for EVA ICS units on any connected node, launch system commands or perform additional user-defined tasks.

#### **SFA Framework**

EVA SFA Framework allows users to quickly create JavaScript-based applications and interfaces (back-end, Web UI, PWA and others). SFA Framework provides tools to easily and reliably handle authentication process, process state events, system events, execute API calls and other back-end functions.

#### **Events**

EVA ICS has super-flexible event notification system, which is used to submit / replicate state events between EVA ICS nodes, 3rd party applications, and HMI user interfaces. Store current and archive data, EVA ICS includes support of SQL databases, InfluxDB, Prometheus and many others.

#### **Universal Controllers**

Enable any equipment connection to send and collect data for monitoring and analysis creation



# Autonomous System with Completely Open Source code

No backdoors, information leaks or dependence on developer's infrastructure

#### Flexible API

Flexible API for additional software connection, ec.gti.on, e.g. BIG DATA processing complexes and MACHINE LEARNING. Built-in tools for cloud configuration deployment (IaC)

### **Full Scalability**

All components can be installed on different servers and connected in personal CLOUD through LOCAL NETWORK or INTERNET

#### **Industry 4.0 Ready**

Secure private clouds with no internet required, Flexible and easy IaC deployment, Crash-free



## Our Advantages

- + Your equipment can be quickly connected to EVA controllers using simple scripts or drivers
- Controllers automatically exchange information between each other and your software add-ons through MQTT-servers
- Built-in support for MQTT, SNMP, Modbus, 1-Wire and other industrial protocols

- Integrated controller web-interfaces for testing and system optimization
- + Logic control macros, flexible and customizable decision-making system
- With SFA Framework all of equipment are immediately accessible for preview and control in web browsers – attach an interface design and its ready to work

## **Unique Features**

- Industry
  4.0 Ready
- 2. Unlimited Scalability
- 3. Infrastructure as-code
- 4. Cloud Technologies



## **Industry-4.0 Ready**

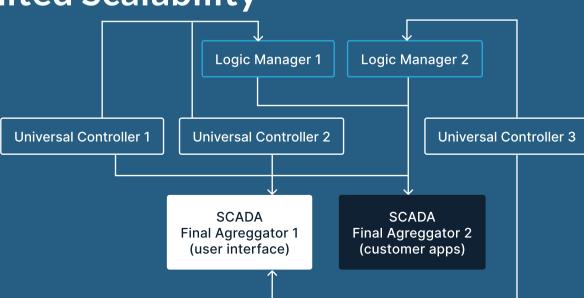
- Enterprise-level Q/A and support: all stable platform builds pass multiple-stage automatic and manual tests, all new versions have the long-term backward compatibility
- Industrial-grade platform: real-time, safe and secure event replication, industrial hardware communication protocols out-of-the-box
- Balanced synchronization mechanisms: data between nodes are synchronized by multiple push/pull workers, which protect and verify each other

- Real-time core: all internal and external calls are strictly checked for timeout errors
- + Secure and independent: EVA ICS nodes can synchronize data without the Internet, using internal secure communications, mission-critical calls are encrypted with military-grade AES256 encryption
- + Exponential learning curve: EVA ICS architecture is strict but simple and can be quickly learned by customers engineering teams

## **Unlimited Scalability**

EVA ICS components have unlimited scalability. Data can be quickly synchronized between nodes via multiple ways (MQTT, Web sockets, UDP push).

Customers can choose the best communication protocols for their setups and enjoy the true real-time data replication



## Infrastructure-as-code

FVA ICS brings I

EVA ICS brings IaC paradigm into the industrial world:

- install-pkg: farm-demo-ui.evapkg

ıc/tarm-uc1:

Unification of setup configurations

Single-file infrastructure deployment

Switching between virtual and real-world infrastructures

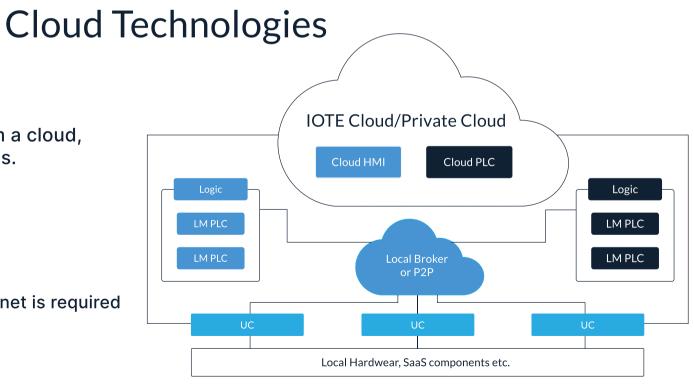
after-deploy

- { api: update, i: greenhouse1/env/temp, s: 1, v: 22
- { api: update, i: greenhouse1/env/hum, s: 1, v: 50 }
- -{ api: update, i: greenhouse1/env/soilm, s: 1, v: 90 }

EVA ICS nodes can automatically form a cloud, exchange data, and control commands.

#### The EVA ICS private cloud is:

- flexible and secure
- can use local communications, no Internet is required



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# Solutions on Industry 4.0 and IoT market

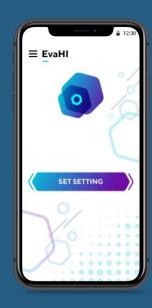
Features	Thingsboard	Node-Red	Amazon IoT	Microsoft IoT	Google IoT	CODESYS	Classic SCADA	EVA ICS
Full Control	Limited	Yes	Yes	Yes	Yes	Yes	Semi limited	YES
Data exchange model	Push	Push	Push	Push	Push	Pull	Pull	PUSH/PULL
Open-source	Yes	Yes	No	No	No	No	No	YES
Industrial protocols out of box	No	No	No	No	No	No	Yes	YES
Support for Integrators	Yes	3rd party	No	No	No	No	No	YES
Scalability/clouds	Limited	Limited	Unlimited	Unlimited	Unlimited	Limited	Limited	UNLIMITED
Private clouds	Limited	Limited	No	No	No	Limited	No	UNLIMITED
Stric data structure	Limited	No	No	No	No	Yes	Yes	YES
Extensions	Limited	Yes	No	No	No	Yes	Limited	YES
CI/CD (Devops-friendly)	No	No	No	No	No	No	No	YES
Reliability and speed	Low	Low	Low	Low	Low	High/Low	High/Low	HIGH
Enterprise-ready	No	No	Limited	Limited	Limited	Yes	Yes	YES
Enterprise-ready	No	No	Limited	Limited	Limited	Yes	Yes	YES
Enterprise experience (core team)	No	No	N/A	N/A	N/A	Yes	Yes	YES
Crow(rapid development)		Low	Low	Low	Low	Low	N/A	HIGH



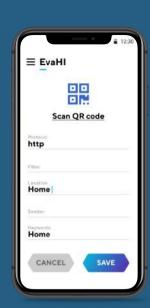
# Modern Interfaces

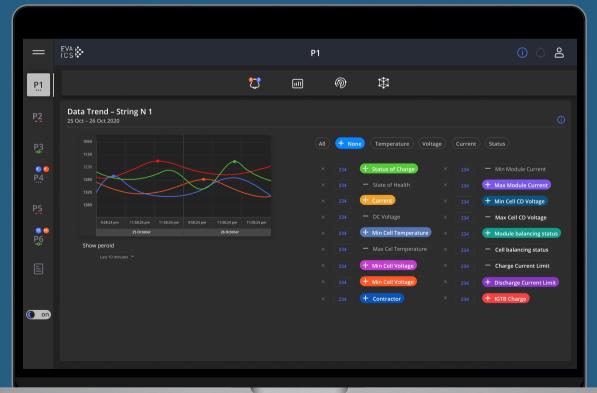
Mobile and desktop interfaces of any complexity













## Contact us





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## Official representatives

For all questions regarding integration, support and partnership, contact the product vendor - Altertech Group:

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