Gluon GMU491
Cloud Gateway

The Cloud Gateway is a unique data capturing solution for industrial internet (IoT) applications, based on commercial cloud or IoT platform services, like Microsoft Azure or Amazon Web Services.

The Cloud Gateway collects analog and digital signals from sensors and e.g. PLCs through its integrated inputs. Additionally, it collects fieldbus data through integrated Modbus connections. Everything is served directly to the cloud service of choice.

The Cloud Gateway provides redundancy for data transfer with its integrated LAN and mobile data connections. When the primary transfer network is down, the secondary takes over automatically. Real-time data delivery is secured, if either of the transfer networks have service. In case of both failing, automatic local hardware buffering with sufficient capacity secures data series continuity.

Though the Cloud Gateway runs straight out of the box, it also has support for bespoke local applications for e.g. edge computing. It comes with a built-in standard Linux computer for running local applications, standard modules or custom built. Optional authentication and transfer encryption keep business critical data secure.

Pt1000	Analog inputs
Digital inputs	Microcontroller
	Linux Debian Computer

Modbus

Modbus Master

Modbus Slave

LAN TCP/IP

3G Mobile data

ionSign Cloud

amazon webservices™

Microsoft Azure

IBM Watson IoT

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Hardware Setup

- Integrated LAN connection
- Integrated 3G GSM mobile connection
- 6 open collector inputs for pulse counting or relay inputs for digital switches
- 10 analog inputs (4 – 20 mA)
- PT1000 temperature sensor input
- 2 RS485 interfaces (Modbus master & slave)
- Hardware buffer for 13 000 measurements (=all inputs and 250 Modbus registers)
- 15 min logging interval → 135 days HW buffer

- Operating voltage 12…24 VDC
- Controllable voltage output, max 500 mA
- Current consumption 230 mA w/o Vout
- Operating temperature (-25°C) 0°C … +50°C
- Operating humidity 5%...95%, non-condensing
- 9 module wide DIN rail enclosure (W x H x D 156 x 90 x 52 mm)
- IP20, available with enclosure for higher IP

Programming Interface

- Linux OS Standard Debian 8.5 (Jessie)
- AM335x 1GHz ARM® Cortex-A8 processor
- 512 MB DDR3 RAM
- 600 MB free on-board flash storage

- Pre-installed PostgreSQL database
- Pre-installed lighttpd web server
- Pre-installed SSH client and server

Communication Interface

- Integrated web configuration interface
- SSH command line interface

- Integrated communication modules for ionSign cloud, Microsoft Azure and Amazon Web Services

Extra features

- Supports custom local applications for e.g. edge computing and custom cloud communication
- Supports all Linux Debian compatible encryption and authentication methods

LAN/TCP-IP
3G mobile

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