IoT Solutions for Solar Farms of AGL

SO#: SO/2022/00535

1. Requirements

AGL has got about 1500 sites of Solar Energy systems. Each site has about 50 parameters to monitor (15 for Inverter and 15 for Power Meter, some sensors with 2/3 parameters)

Each site will send data to MS Azure IoT Hub via MQTT (or HTTP...).

The pricing will be offered in a quantity of 1/100/500/1500 Units, using NB-IoT connectivity.

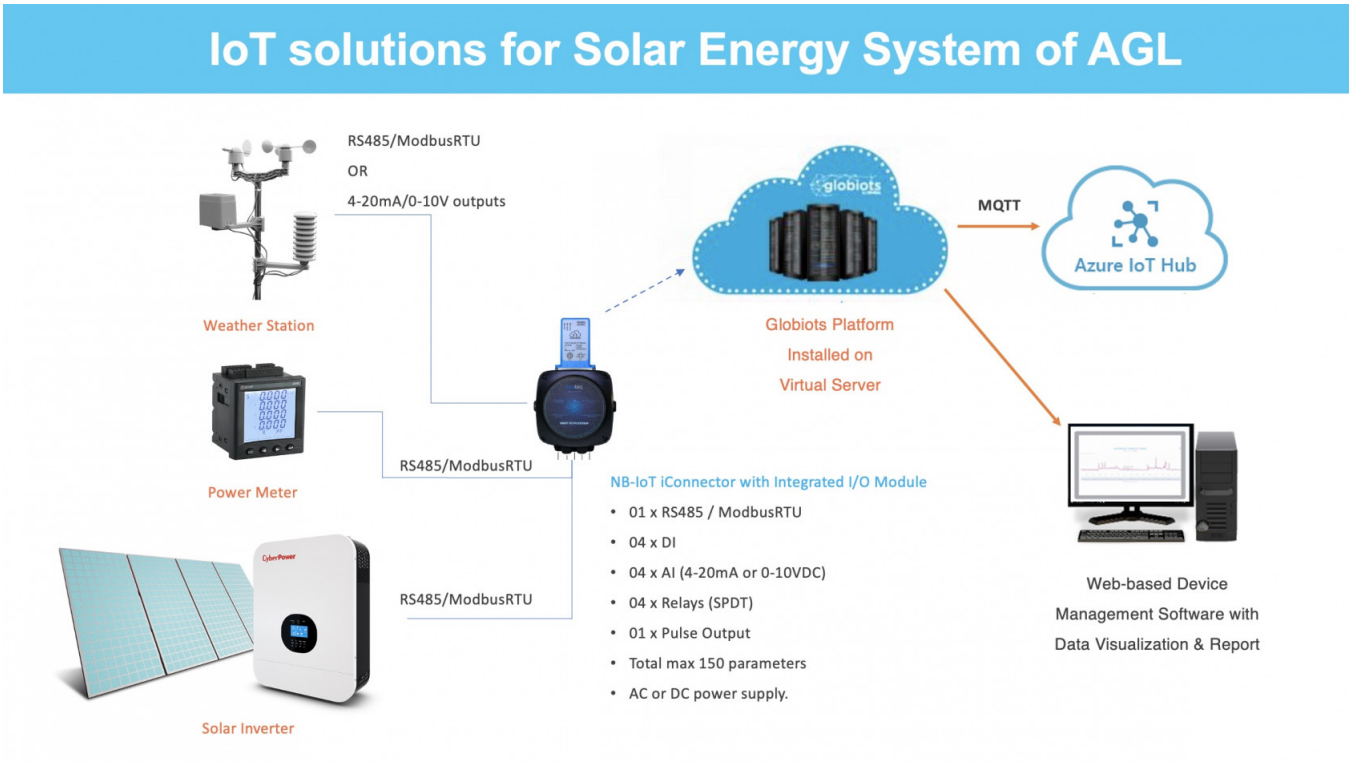
2. Solutions from Daviteq

Each site will be installed with at least 1 set of iConnector (with or without integrated I/O).

The system uses the Globiots platform as a Device management platform to operate and maintain the entire system. Meanwhile, Globiots is also forwarding the data from iConnector to other software via MQTT.

The Globiots can be deployed on cloudGlobiots (Templogger Pro system on IBM virtual servers) or an On-premise system (installed in the customer's virtual servers, which is MS Azure in this project).

Please refer to the below architecture.



3. Benefits of the Solutions

iConnector is a 3-in-1 device:

- Data logger with up to 140.000 records;
- Logic Controller (Alarm and Event processor)
- Internet Gateway (via Cellular/WiFi/Ethernet)

Together with the Globiots platform, it provides a future-proof, cost-effective Industrial IoT solution.

It provides quick deployment, easy maintenance, and upgrades.

4. Bill of Quantity

Index	Item code	Descriptions	Remarks
1	STHC-IO-ISGM1-NB1-01-DC	SMART OUT-OF-BOX IOT GATEWAY WITH INTEGRATED IO, ICONNECTOR, IO MODULE + DATA LOGGER + CONTROLLER + GATEWAY Cat M1/NB1/2G, 04 RELAYS, 4DI, 4AI/DI, 1 PULSE PWM OUTPUT, RS485, POWER SUPPLY 9..36VDC, IP67	for the site that needs integrated I/O to connect to analog sensors/devices.
2	STHC-ISGM1-NB1-NC	SMART OUT-OF-BOX IOT GATEWAY WITH INTEGRATED IO, ICONNECTOR, IO MODULE + DATA LOGGER + CONTROLLER + GATEWAY Cat M1/NB1/2G, RS485, POWER SUPPLY 7..48VDC, IP67	for the site does not need integrated I/O
3	LB-SETUP-PRIGLB	LABOR COST FOR SETTING UP A NEW PRIVATE GLOBIOTS SYSTEM	This cost will not be applied if using the cloudGlobiots of Daviteq or Templogger Pro
4	CS-PRIGLB-0500	Monthly Subscription Fee for Private Globiots, 500 PARAMETERS OF ICONNECTORS (OR 14000 UPLINK AND 400 DOWNLINK MESSAGES FOR SIGFOX/LORAWAN SENSORS PER DAY)	This subscription fee is applied for Private Globiots only. For cloudGlobiots or Templogger Pro, the price will be different. Please get in touch with us about this case.
5	LB-SETUP-ICT	ENGINEERING FEE FOR CONFIGURATION OF ICONNECTOR IN GLOBIOTS SYSTEM AND ESTABLISHING THE MQTT CONNECTION TO THE BROKER	
6	SR-CUZGLB-THEME	CUSTOMIZE GRAPHIC INTERFACE FOR PRIVATE GLOBIOTS SYSTEM. LOGIN SCREEN, LOGO AND COMPANY INFORMATION, AND COLOR THEMES	optional item
7	LB-ENGINEERING-02	ENGINEERING FEE IN MAN-HOUR FOR DESIGN AND BUILD THE DASHBOARD/REPORT IN GLOBIOTS SYSTEM	Based on customer requirements (optional item)

5. Useful Links

- NB-IoT iConnector: https://www.daviteq.com/en/?prd=iot-products-2_STHC_smart-iot-gateway---iconnector
- NB-IoT iConnector with Integrated IO: https://www.daviteq.com/en/?prd=iot-products-2_STHC-IO_smart-iot-gateway---iconnector-with-integrated-io-module
- How to select the right iConnector: https://support.daviteq.com/hc/en-us/articles/4411626253081-How-to-select-the-right-iConnector-Smart-IoT-Gateway-
- Manual for Generic iConnector: https://support.daviteq.com/hc/en-us/sections/4407764693273--STHC-USER-GUIDE-FOR-SMART-IOT-GATEWAY-ICONNECTOR
- More use-cases of IoT: https://www.daviteq.com/en/use-cases/

6. Still questions?

Please feel free to email us should you need further clarification.

END.

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