IoT Cloud Management Software - IoTstar



Introduction

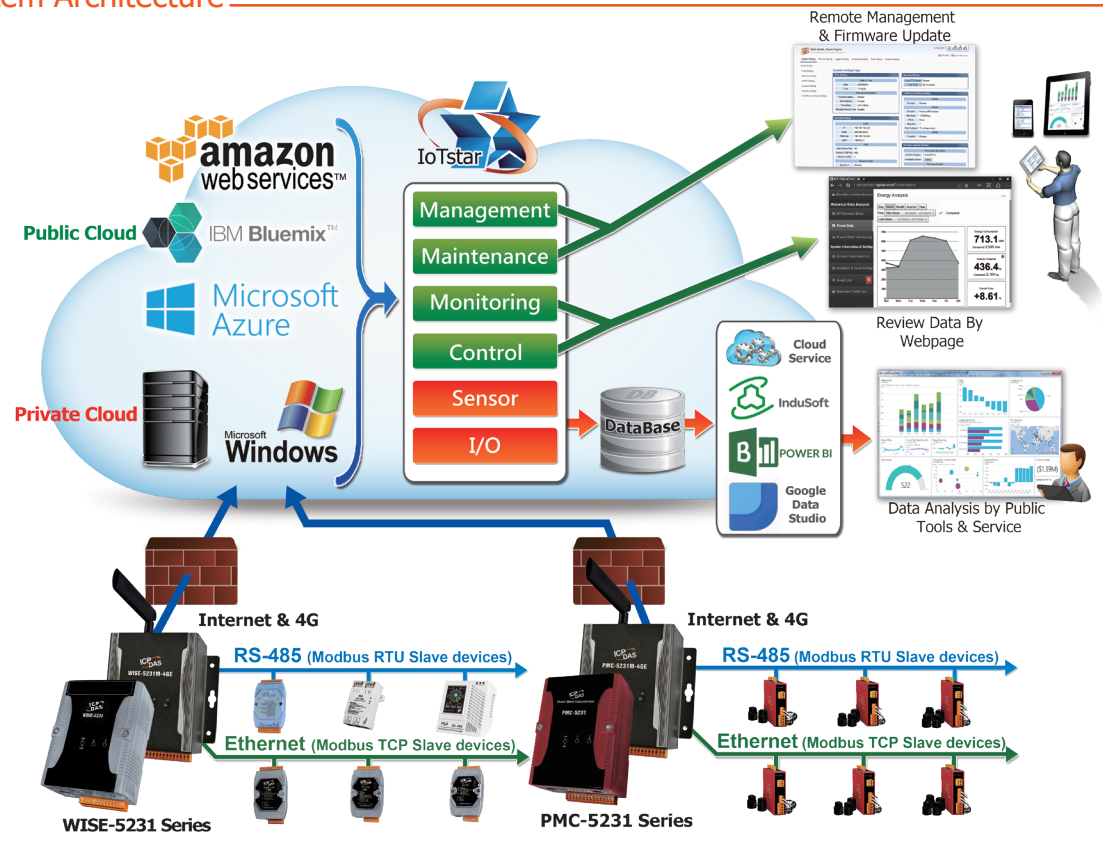
IoTstar is software developed by ICP DAS for use in remote monitoring and management of the PMC/WISE controllers in a variety of Industrial IoT applications.

After the Network connection is built between the remote controllers and the IoTstar via the Ethernet/3G Network, the IoTstar can then communicate with the remote PMC/WISE controllers to implement the System Setting, Status Monitoring and Firmware Update by a few clicks; no programming is required.

In addition, with the PMC/WISE's Data Logger function and auto send-back data log files to the IoTstar; after the IoTstar receiving the data log files from the remote PMC/WISE controllers, it will import the content of these files into the Database. And then these recorded data can be directly retrieved from the Database for future information Big Data analysis by the SCADA software, Data analysis tool (for example: Microsoft Power BI, Google Data Studio) or Cloud Service.

IoTstar can be installed on a general PC platform and works as a Private Cloud system. or on the Microsoft Azure, IBM Bluemix or Amazon AWS, etc. and works as a Public Cloud system. By using IoTstar, it is easy to build a Remote Monitoring and Management system for PMC/WISE controllers, and the users also could quickly integrate the sensor data with the IoT Cloud system for Big Data Analysis. "IoTstar + PMC/WISE" is an easy-to-use and easy-to-build IoT Cloud solution for the IoT and Big Data applications.

System Architecture



Features

No more programming! Using browsers to perform Remote Maintenance & Remote Data Service for WISE/PMC controllers.

Can be installed on Public Cloud platform such as: Microsoft Azure, IBM Bluemix or Amazon AWS to implement the Public IoT Cloud solutions on the controllers.



Can be installed on Windows system (Windows 7/8/10, Windows Server) to implement the Private IoT Cloud solution on the controllers.



Enables the remote management and firmware update on the controllers via user-friendly and intuitive Web page interface.





Receive the data log file of the Sensors, I/O modules and Power meters from the remote controllers and import the content of the data log file into the Database

Please Note : MS SQL is ready. MySQL is available soon.



By Database interface, it is easy to integrate with SCADA, Microsoft Power BI, Google Data Studio or Cloud Service to retrieve the data of the Sensors, I/O modules and Power meters directly from the Database for Big Data analysis.



User can retrieve and review the data of the Sensors, I/O modules and Power meters directly by the built-in IoTstar Web page interface.

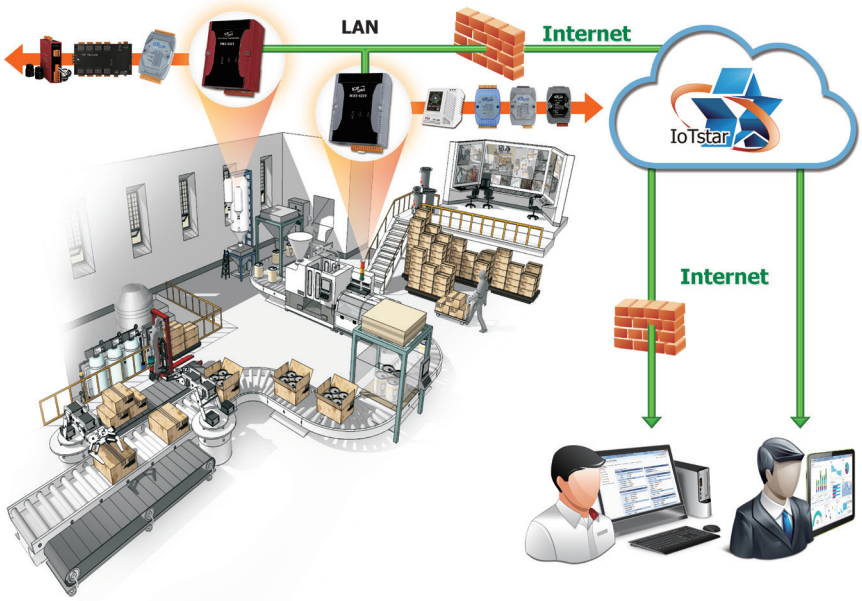


Applications

Remote Machine/Facility Management & Maintenance (two-way interaction)

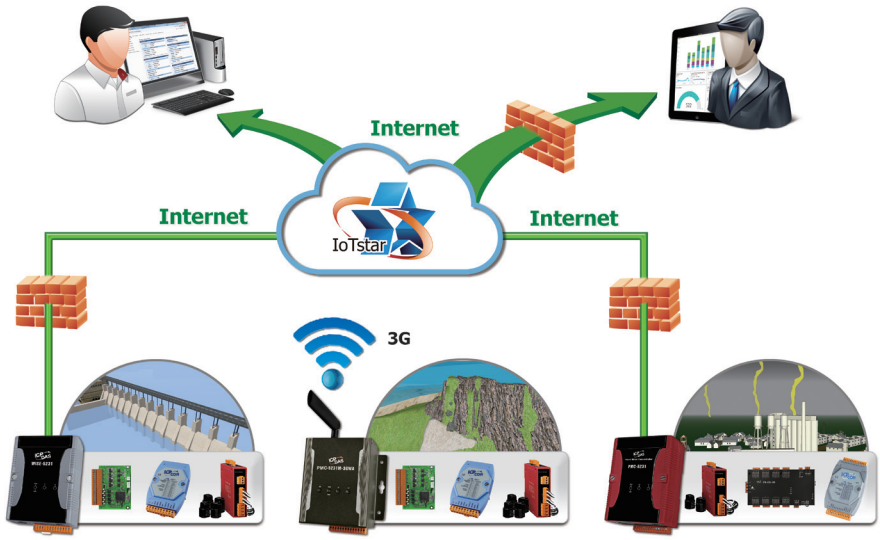
Build the IoT cloud monitoring system of the devices/facilities via the "IoTstar + PMC/WISE" architecture, the administrator can perform remote monitoring of the devices, configuration and firmware update **at any time and any place**.





Remote Environment Monitoring and Control (two-way interaction)

Build the environment cloud monitoring system via the "IoTstar + PMC/WISE" architecture, the administrator can perform remote monitoring of the status of the environment **at any time and any place**. By integrating the data in the database, the administrator can aware of the status change of the environment and take necessary actions in advanced to avoid possible damage or risk.



Why IoTstar?

By IoTstar, the users can quickly build PMC/WISE IoT cloud management system, and perform the storage, inquiry and viewing of the data from the power meters, I/O modules and sensors connected to the PMC/WISE on the cloud. "IoTstar + WISE/PMC" features the following benefits:

	Description	Benefits
System Installation	It can be installed on Windows systems or Public Cloud platform.	Flexible installation environment provided to **save the cost in building the system and maintenance**.
Network Setting	Only need to set "Static IP" or "DDNS + Dynamic IP" for the IoTstar. No need to worry about the network environment and IP setting of the controller.	**Dramatically reduce the complexity and cost** of the network setting.
System Implementation	IoTstar and PMC/WISE all provide web-based setting interfaces.	**No programming is required**; just makes a few settings on the web-based interface for the system setting. The **cost can be significantly reduced**.
Remote Device Management	The operator can perform remote monitoring and configuration of the controllers via IoTstar at any time and any place.	**Provide immediate devices maintenance, save the transportation cost** when performing maintenance operations.
Data Integration & Analysis	IoTstar can import the Sensors data into the database to work with the data analysis tools or services for Big Data analysis.	By analyzing the data in the database, **the status of the Sensor can be known in advanced to avoid possible damage or risk**.

Installation Platform Requirement

	Specification Suggestions
CPU	64-bit (x64); 3.0 GHz or higher GHz Processor
RAM & Hard Disk space	• Minimum 4 GB for RAM. Minimum 64GB for Hard Disk space. • As the size of Database is increasing, please do not forget to increase the size of the RAM and Hard Disk space as needed to ensure the best performance of the system.
OS System	Windows 7, Windows 8,Windows 10, Windows Server 2012 or later OS system.
.NET Framework required	Microsoft .NET Framework 4.5 or later installed.
Notes	• IoTstar needs to work with the IIS Web Server and MS SQL database system. • **IoTstar supports WISE-52xx (with V1.2.3 or later version firmware) and PMC-52xx/PMD (with V3.2.1 or later version firmware) controller.**

Ordering Information

IoTstar-RA10C20	IoTstar runtime with 10 accounts, 20 controllers for each account.
IoTstar-RA10C50	IoTstar runtime with 10 accounts, 50 controllers for each account.
IoTstar-RA10C100	IoTstar runtime with 10 accounts, 100 controllers for each account.