

Accessing Data

The currency of the IoT and the lifeblood of AI

By Andrew Maisel and Rich Blomseth

Overview

Existing networks of devices offer data ready for mining by today's and tomorrow's AI engines, however industrial device protocols don't communicate with IT networks. Now IAP, the IoT Access Protocol™, bridges this divide, and is a subject of discussion for LonMark International's new Web Services Task Group.



IAP Overview

The Internet of Things is nothing new; industrial and commercial devices have been networked for decades. What is new, is the realization that large, existing networks of devices offer data ready for mining by today's and tomorrow's AI engines.

Connected devices are historically the domain of operational technology (OT) professionals. They understand and speak things like LON, BACnet, Modbus, Zigbee, and CAN. Artificial Intelligence is the domain of information technology (IT) professionals. They speak things like MQTT, CoAP, REST, SOAP, and XML.

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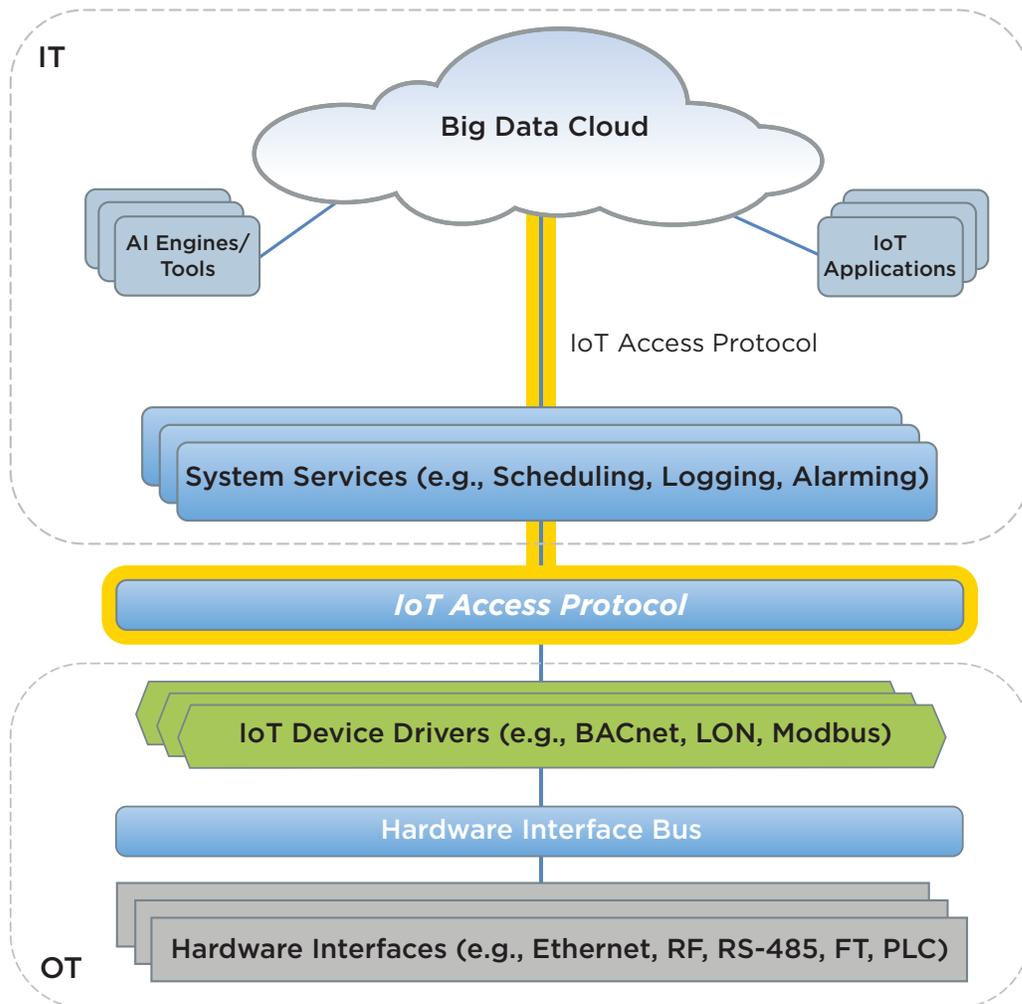
Today, when IT and OT need to interact, someone has to write a network- and device-specific translation protocol. These one-off solutions work, but because they are situation specific, they don't enable access to all the heterogeneous sources that are of interest to Big Data consumers and their AI engines.

IAP, the IoT Access Protocol, is the solution to IT's need to access data on OT networks, and for the interconnection of OT devices.

IAP Advantages

Illustrated below, the IoT Access Protocol connects OT to IT, saving time and adding value for integrators and OEMs.

- An open and extensible protocol designed for IoT
 - Access data from new and existing device networks
 - Leverage the power of Big Data and AI
- Easily extend to include other:
 - › Hardware interfaces
 - › Device drivers
 - › System services
 - › Cloud destinations
 - › Cloud services
 - › Private enterprise instances



IAP and LonMark

LonMark International has formed a Web Services Task Group to develop a new standard for IoT web services. Echelon has offered to submit the IAP definition as the basis for the new IoT web services standard, and has agreed to lead the Web Services Task Group to draft the new standard and start the standardization process. Any member of LonMark International can participate in the Web Services Task Group discussions. To participate in the task group discussions, contact Rich Blomseth at Echelon, rich@echelon.com.