

EdificeEdge

Buildings IoT (B-IoT) Gateway Platform

A secure, scalable and reliable gateway platform for insightful and actionable data from building networks



EdificeEdge is a feature rich middleware platform and an ideal solution for many of today's smart building application needs. With built-in data aggregation engine to collect data from thousands of building assets (sensors, actuators, controllers, legacy equipment), it contextualizes data into Project Haystack semantic data model to generate actionable insights.

With an ability to compute and perform analytics at the edge, it is ideal solution to build any cloud based Building Management Systems (BMS), smart building analytics platform and even remote monitoring systems for controlling and monitoring equipment. Built on top of Intel's 'Edge Insights for Buildings', EdificeEdge is a secured, robust, scalable platform to bring new IoT solutions to market.

Features at glance

Full edge-platform integration

EdificeEdge's built-in data aggregation engine can reliably collect data from more than 25,000+ data points belonging to devices and equipment that support leading industry-standard protocols like BACnet and Modbus. Additional support for other key IoT protocols like OPC-UA, LoRa, and KNX are also available for specific customisations.

Project Haystack modelling

The collected data points are normalised into the Project Haystack semantic data model to generate actionable insights. The platform allows easy addition of metadata and normalisation of the telemetry data using the Haystack standard.

Containerised architecture

Our microservices-based containerised architecture allows us to run complex computational algorithms at the edge. It allows application portability and simplifies application deployment and orchestrations at the edge to build plug and play software applications.

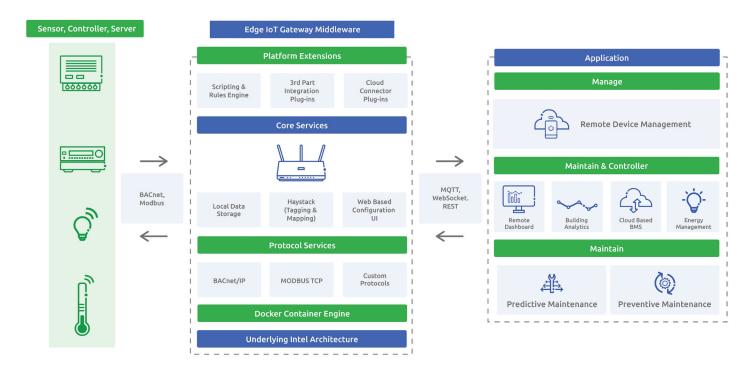
Cloud connectivity

The EdificeEdge IoT platform provides cloud support for platforms like Microsoft Azure, AWS, Google Cloud, and Cummulocity. This provides the necessary flexibility to deploy where you want.

OTA update

The platform offers secure over-the-air (OTA) firmware and application upgrades. The remote device management feature of EdificeEdge ensures secure and proper functioning of multiple IoT devices after they have been deployed in the field, and allows remote and efficient device provisioning, monitoring and diagnostics.

EdificeEdge Building Blocks



Specifications

CPU	Available on Intel® Atom/Core/Xeon processor family

Design	Compact size with fanless Design Robust and cableless design with high stability
Connectivity Support and Data Models	BACnet, Modbus, Project Haystack
Interfaces	Ethernet (Optional) 4G LTE, Wi-Fi
Storage	Mini PCIe expansion slot for mSATA storage Supports 2.5" HDD or SSD storage

API Provision

Haystack API

- Read Haystack entities
- Configure Haystack watch operations
- Read/Write data of a historized point
- Custom commands
- Proprietary Haystack operations

BACnet API

- Monitor and control BACnet devices
- Read present value of BACnet objects
- Configure network port object
- Configure event notifications

Modbus API

- Communicate with the Modbus TCP devices
- Poll specific registers/coils for telemetry data collection



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