



# Intelligent IoT Gateway Framework

Stay Connected  
Stay Secured

# Intelligent IoT Gateway Framework: Architect your Next-Gen Connected Solutions

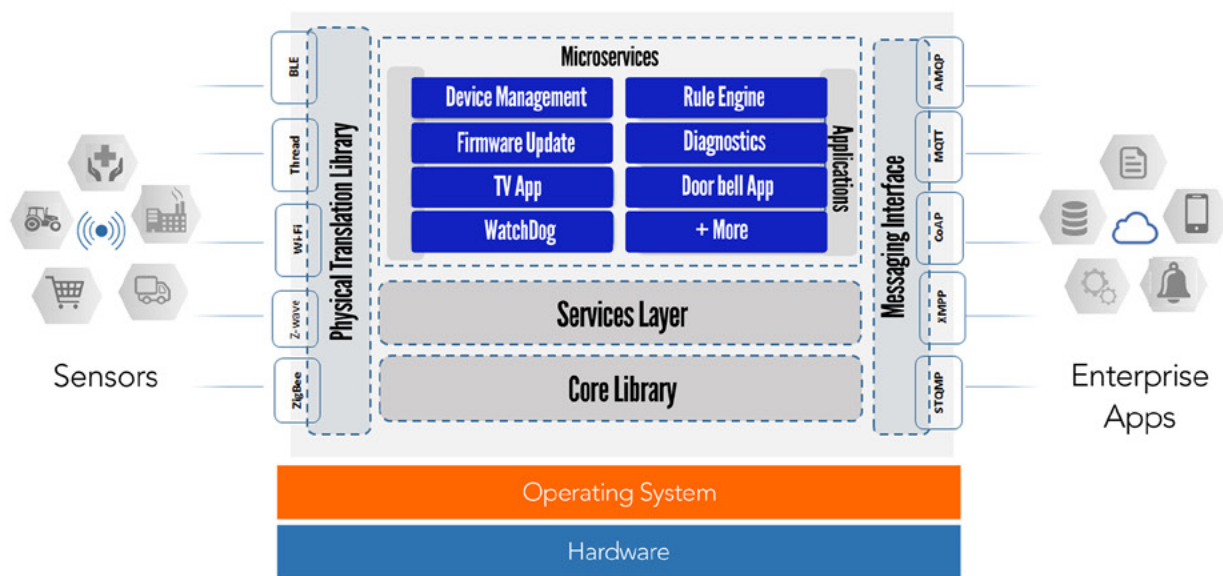
IoT Gateway helps in managing and controlling the complex and disparate IoT environment.

Bridges the communication gap between devices, sensors, systems, and cloud, and offers local processing and storage.

Enables customers to securely aggregate, process, and filter data for analysis.

Ensures that the federated data generated by devices and systems can travel securely and safely from the edge to the cloud.

## Snapbricks IoT Gateway Software Framework



### Unique Features:

- Interoperability
- Vertical and Horizontal Scalability
- High Availability
- Edge Computing and Dynamic Rule Engine
- Security and Access Management
- Application and Device Lifecycle Management
- Cloud (Edge over API)

### Key Outcomes:

- **Faster time to market:**  
Plug and play devices and applications
- **Intelligent connectivity:**  
Compute on the edge and maintain device shadows
- **Common software stack:**  
Stack reuse across gateways and devices
- **Security out of the box:**  
Access controlled and encrypted for end-to-end security



## Micro-services Architecture

- Each application container is a Micro-service
- Enables vertical scaling through multiple instances of a Micro-service



## Device Lifecycle Management

- Onboarding
- Registering
- Monitoring
- Shadowing



## End-to-End Connectivity Solution

- Quick on-boarding of devices
- Quick connectivity with Cloud
- Dynamic rule engine



## Application Enablement Platform

- Cloud Deployed, Controlled and Managed
- Application Configuration
- Gateway Configuration
- Mesh Management

## Common Software Stack



- Multi Infra
- Multi OS
- Multi Hardware



## Load Balancing

- Peer-to-peer gateway communication
- Enable horizontal scaling through intra-gateway & inter-gateway transfer of application container

## Support for a Variety of Secured Messaging Protocols



- MQTT
- STOMP
- CoAP
- AMQP
- DDS
- XMPP

## Support for Multiple Device Protocols



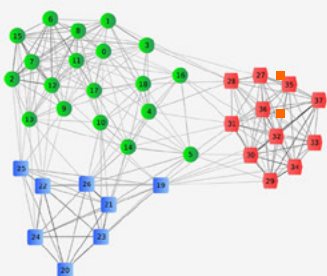
- Zigbee
- Z Wave
- BLE
- OPC-UA
- Thread
- Wi-Fi

## IoT Platform Adapters



- Azure IoT
- SAP Leobardo Live
- Predix
- AWS
- MindSphere

## Gateway Clustering



- Clustered gateways provide high availability
- Geographically-correlated auto resilient gateway feature ensures uptime by auto transferring the devices

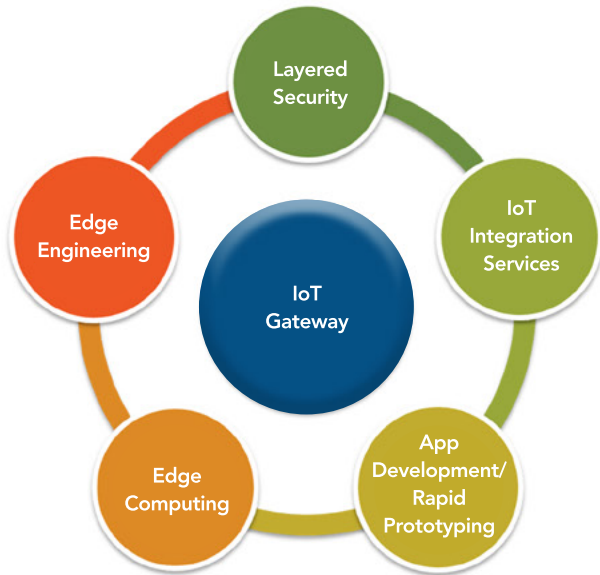


## Layered IoT Security

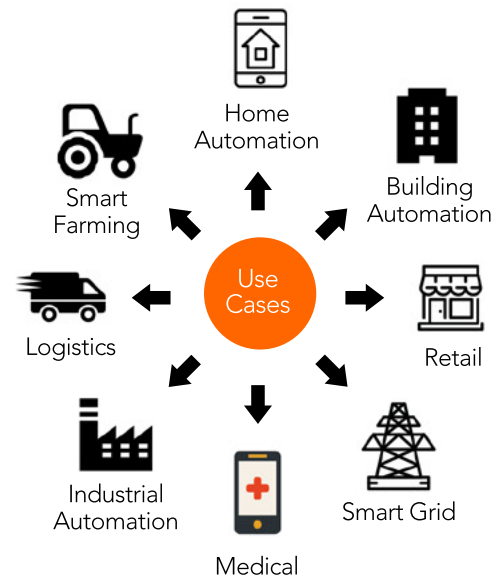
- Adaptive "Chain of Trust"
- Trusted Platform Management
- Role and attribute based Access



## IoT Gateway: Engineering Services



## IoT Gateway: Use Cases



## IoT Testing

- End-to-end testing for devices, connectivity, database, web, mobile, API
- Supports communication with major IoT protocols
- Plug & Play architecture with cloud integration support

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