RX Cloud Solution - Simplifies IoT Development on AWS

RX65N CLOUD KIT

Overview

The cloud-based services have become essential to efficiently process the enormous data volume involved. To reduce the barriers to development, the RX65N Cloud Kit is an all-in-one evaluation kit enabling customers to easily build and evaluate cloud-based communication environments, allowing even customers with little experience to start development of the IoT devices without any delay.

Features

- FreeRTOS™ qualified
- Easy connection to AWS Cloud using MQTT, TLS, TCP/IP protocol
- Send three types of sensor data (temperature/humidity, brightness and three-axis accelerometer) to the AWS cloud and view a graphical display on Renesas Dashboard*
- Wireless communication using Silex Wi-Fi module
- OTA features under development (Q4'20)

* Renesas Dashboard: A Renesas system allowing users to view data sent to the cloud in graphical format on a web browser.
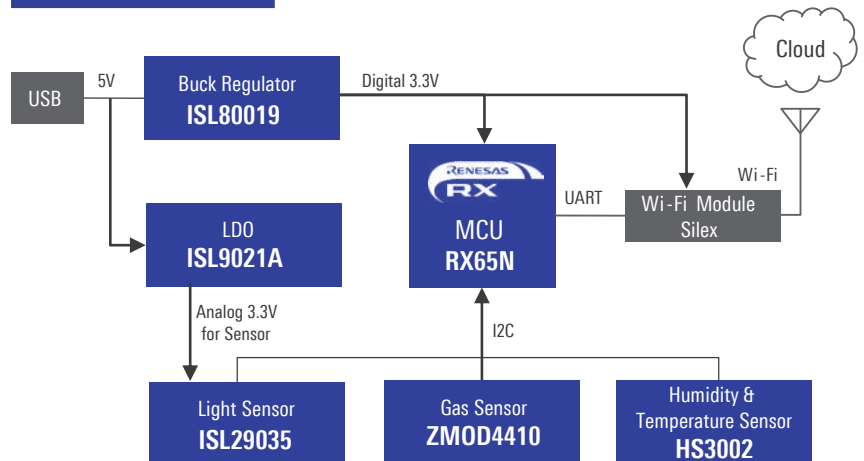
Benefits

- Safe and secure connection to AWS Cloud
- Connect various applications to the Cloud immediately
- Provide application notes and sample programs to assist in IoT device prototyping
- Shorten development time with available sample program and software library
- Easy development environment with e² Studio IDE
- Code generator features
- Import of FreeRTOS integration
- Compliant to radio law in FCC (US), CE (Europe), TELEC (Japan)

Target Applications

- Industrial Automation
- Building Automation
- Smart Home
- IoT Cloud (Internet of Things)
- Smart Meter
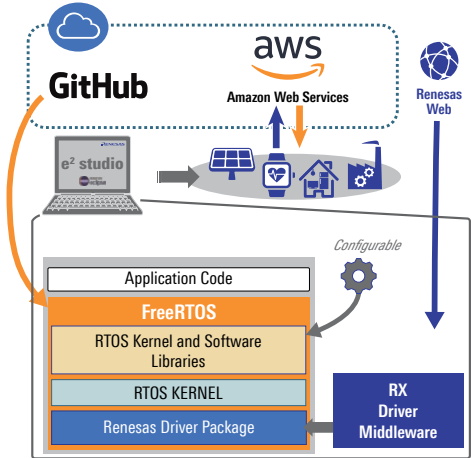- Office Automation

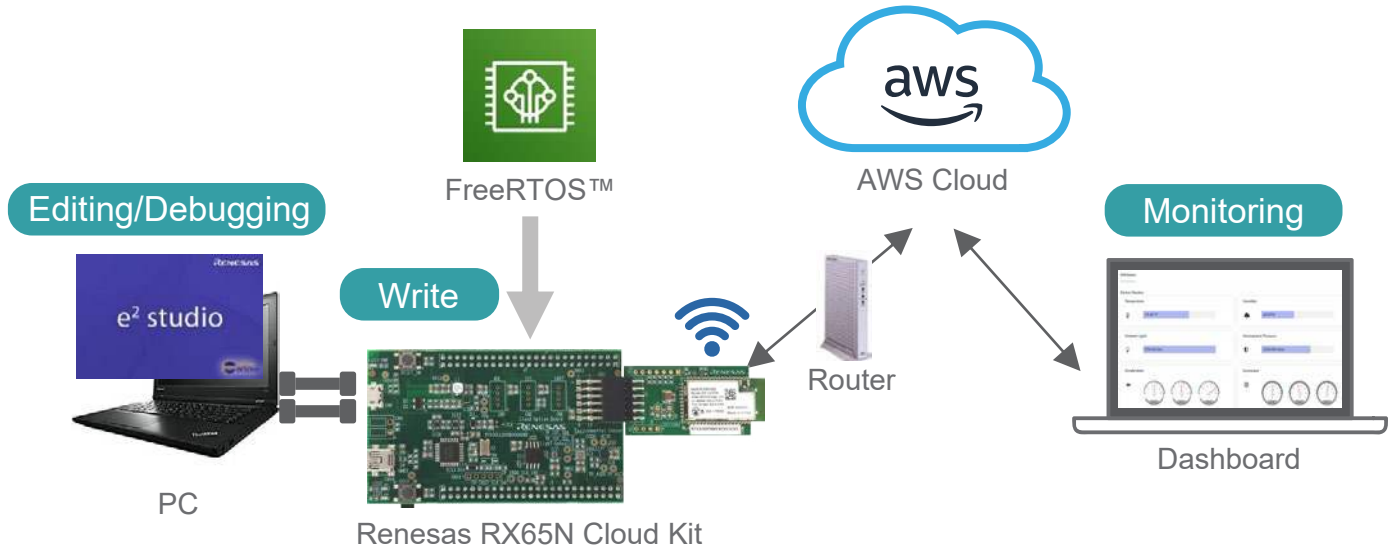## Application Example   ~ Cloud & Sensor Solution for IoT Endpoints ~

RX65N CLOUD KIT

Development Tools and Support

Integrated development environment e² studio

Development Tools	Benefits
IDE – e² Studio (v7.5.0 and later)	■ Automatically generates FreeRTOS™ source code ■ Generate and build the latest FreeRTOS™ sample projects from GitHub ■ Provides required drivers, network stacks (TCP/IP, Wi-Fi®, MQTT), and component libraries assist setting (Device Shadow) ■ Add and implement middleware and drivers (USB and file systems) easily on IoT devices

Development Environment and System Block

Editing/Debugging

FreeRTOS™

AWS Cloud

Monitoring

Write

Router

PC

Renesas RX65N Cloud Kit

Dashboard

Orderable Part Numbers

Product Name	Compliance	Orderable Part Number
RX65N Cloud Kit (Europe, Japan)	CE, TELEC	RTK5RX65N0S00000BE
RX65N Cloud Kit (North America)	FCC	RTK5RX65N0S01000BE

For more information, visit us at www.renesas.com/rx65n-cloud

---

RENESAS

Renesas Electronics America Inc. | **renesas.com**
1001 Murphy Ranch Road, Milpitas, CA 95035 | Phone: 1-888-468-3774