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Solution Overview

RUCKUS & Samsung SmartThings
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Overview

This Solution Overview covers an integration using the RUCKUS IoT Platform and Samsung SmartThings, to offer solutions for the MDU vertical, including Occupancy, Environmental Monitoring and Automation.

These solutions employ RUCKUS access points using a dongle which supports Zigbee and Z-Wave radios. The access points act as a gateway, allowing any devices that are compatible with SmartThings to be onboarded to the SmartThings cloud using an application in your smartphone.

RUCKUS IoT Insights can be used to manage the devices that are onboarded to the SmartThings cloud, and the discovered devices can be used on RUCKUS IoT Insights floorplans and solutions.

Who is Samsung SmartThings?

SmartThings Inc. is an American home automation company headquartered in Mountain View, California with a software development center in Minneapolis, Minnesota. Founded in 2012, it focuses on the development of automation software and an associated array of client applications and cloud platforms for smart homes and the Internet of Things consumer.

Since August 2014 SmartThings has been a subsidiary of Samsung Electronics

You can get more information at https://www.smartthings.com/

Samsung SmartThings Teams with CommScope RUCKUS

Bringing Next Generation Networking to Property Developers and Tenants
As alarm systems, thermostats, air conditioners and other home devices become increasingly connected, the next generation of residents are seeking to drive value and convenience by creating a tailored, technology-enabled environmental experience in their homes.

To address the demand for such an ecosystem, Samsung SmartThings and CommScope RUCKUS have announced a collaboration that enables landlords and building owners to offer enhanced experiences to tenants and residents.

Through this alliance, the CommScope RUCKUS portfolio of converged Wi-Fi 6 and IoT access points will gain Works as a SmartThings Hub (WASH) functionality, enabling property owners to turn their apartment buildings into smart homes, and residents to connect to thousands of devices across hundreds of brands.

SMARTTHINGS SENSORS, DEVICES AND APPLIANCES USING THE RUCKUS IOT PLATFORM

Selling Solutions

Many customers want to buy solutions, not just networks. They are more interested in the value added to their networks.

Even though sensors, IoT gateways and networks are important, those customers care more about the data, and how that data can improve their business and solve their problems.

For example, a property owner in the MDU market could run a solution to monitor the common areas (lobby, gym, bathrooms) and check for occupancy levels, or a solution to monitor environmental conditions and energy (temperature, humidity, energy consumption).
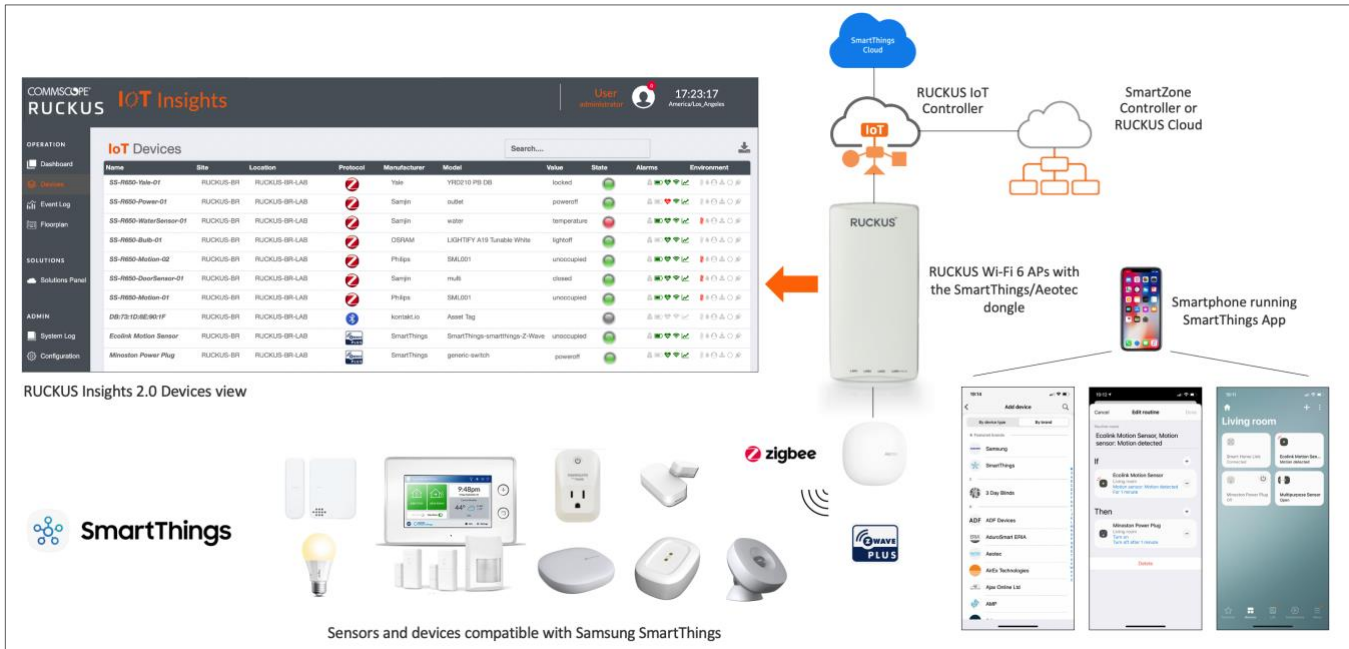
RUCKUS IoT Insights integrates with Samsung SmartThings and an always expanding eco-system, and it allows you to do just that – sell solutions on top of new or existing RUCKUS networks.

RUCKUS IoT Insights - Occupancy Service

RUCKUS & SmartThings Reference Architecture

The following diagram shows the components for the solution:

The RUCKUS IoT Platform

RUCKUS Wi-Fi 6 Access Points and SmartZone

- The access points need an external dongle with Zigbee and Z-Wave radios, manufactured by Aeotec. They will act as a gateway to onboard SmartThings-compatible devices in the SmartThings cloud.
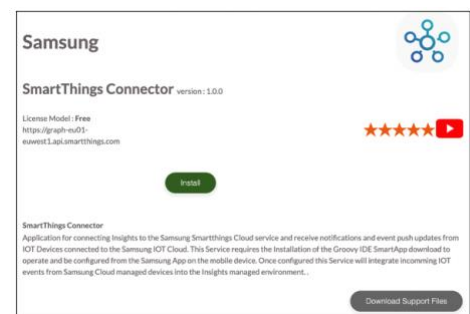- The solution requires SmartZone 5.2.2.0.317, 6.0.0.0.1331, or superior.

RUCKUS IoT Controller

- The RUCKUS IoT Controller is only required to onboard the RUCKUS access point with the Aeotec dongle. It will not be used to onboard the SmartThings devices, which will reside on the SmartThings cloud.
- The required RUCKUS IoT Controller version is 1.8.0.0.27 or superior.
- Also, an IoT Insights Subscription is required to support RUCKUS IoT Insights.

RUCKUS IoT Insights

- Offers tools to create floorplans with the devices, monitor the device status and include them in Solutions. Additional licenses might be required enable the RUCKUS IoT Insights Solutions.
- Also, RUCKUS IoT Insights needs to use the SmartThings Connector to connect with the Samsung SmartThings cloud.

RUCKUS IoT Insights Solutions

RUCKUS IoT Insights is a platform for data analysis and monitoring of IoT solutions using a RUCKUS Wi-Fi infrastructure and a large eco-system of partners. New partners integrations and solution can be added using the RUCKUS IoT Insights Marketplace. RUCKUS IoT Insights has an integration with Samsung SmartThings and many other partners.

Currently, the available solutions are Analytics, Video, Environmental, Occupancy and Safety:

SmartThings Sensors, Devices and Appliances

The Aeotec dongle will be available in RUCKUS distributors. The sensors, devices and appliances can use Zigbee or Z-Wave technology and must be compatible with SmartThings. Examples are door sensors, motion sensors, temperature, humidity and CO_2 sensors, environmental monitoring devices, power outlets, light bulbs, water leakage sensors, door locks, home appliances, etc.

These sensors and devices are manufactured by different vendors, and many are available in Amazon or retail:

SmartThings/Aeotec dongle — Honeywell T6 Pro Smart Thermosat — Centralite Micro Door Sensor — Sylvania Smart Zigbee Smart Plug — Aeotec Temperature and Humidity Sensor — Sengled Zigbee Smart Light Bulb — Arlo Ultra 2 Spotlight Camera — SmartThings Remote Button — SmartThings Water Leak Sensor — SmartThings Magnetic Motion Sensor — SmartThings ADT Wireless Home Security Kit — Samsung Family Hub Refrigerator
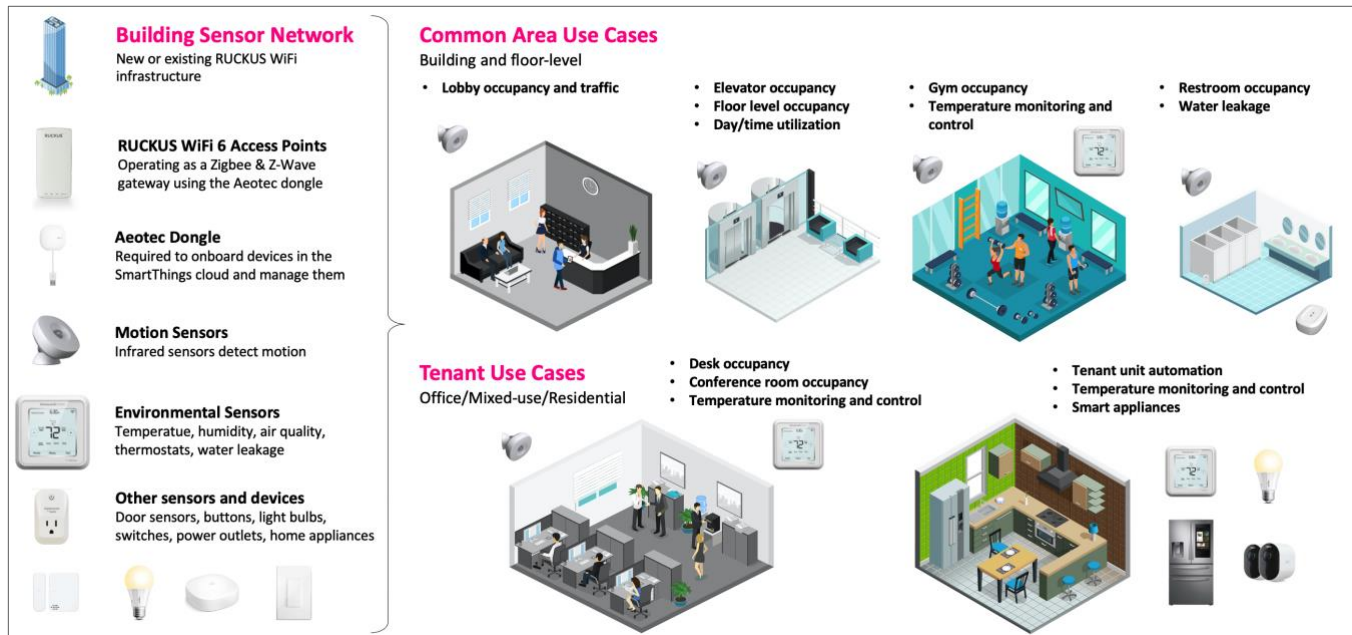
MDU Use Cases

Picerne Real Estate Group

SmartThings and CommScope RUCKUS worked with Picerne Real Estate Group, a construction and development firm, to create connected experiences by incorporating integrated technology directly into one of their new apartment developments. The apartments in this development provide a truly connected experience for residents, allowing them to control their Samsung smart appliances, adjust their heating and air conditioning, and turn on their smart lights all from the SmartThings app.

In addition to residents, property managers and maintenance staff have also benefited from the technology. According to Picerne Real Estate Group, property managers can save as much as 20% on their electrical turnover by centrally controlling thermostats on vacant apartments through the SmartThings app. They can also automate routine tasks. For example, each apartment is equipped with a smart lock, which the property manager can control through the SmartThings app, enabling maintenance staff to quickly and efficiently complete maintenance tickets. The result is increased efficiency and higher resident satisfaction.
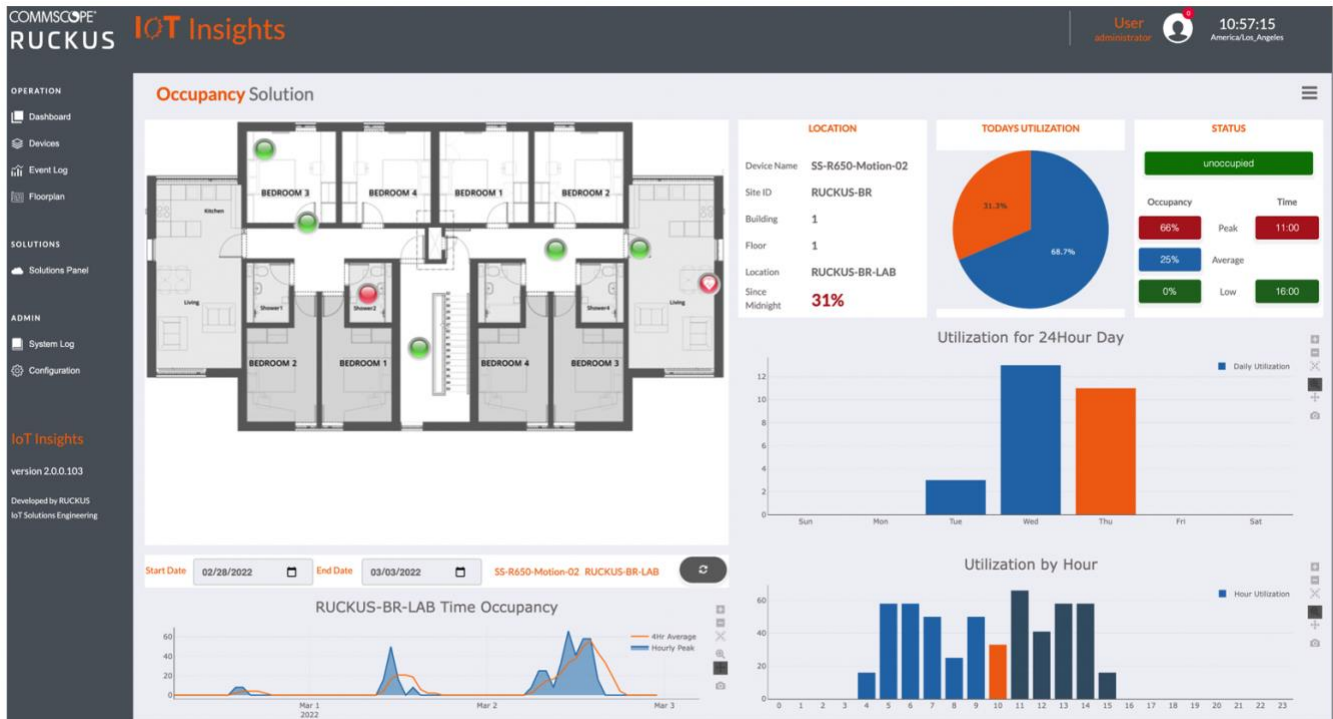
General Use Cases

MDUs include Common Area and Tenant Use Cases. Common Area covers Occupancy solutions and Environmental monitoring and Control. Tenant Use Cases normally will only use Occupancy solutions for office buildings. In addition, the Tenant Units can include Home Automation using kitchen appliances, automatic curtains, cameras, and light control, etc.
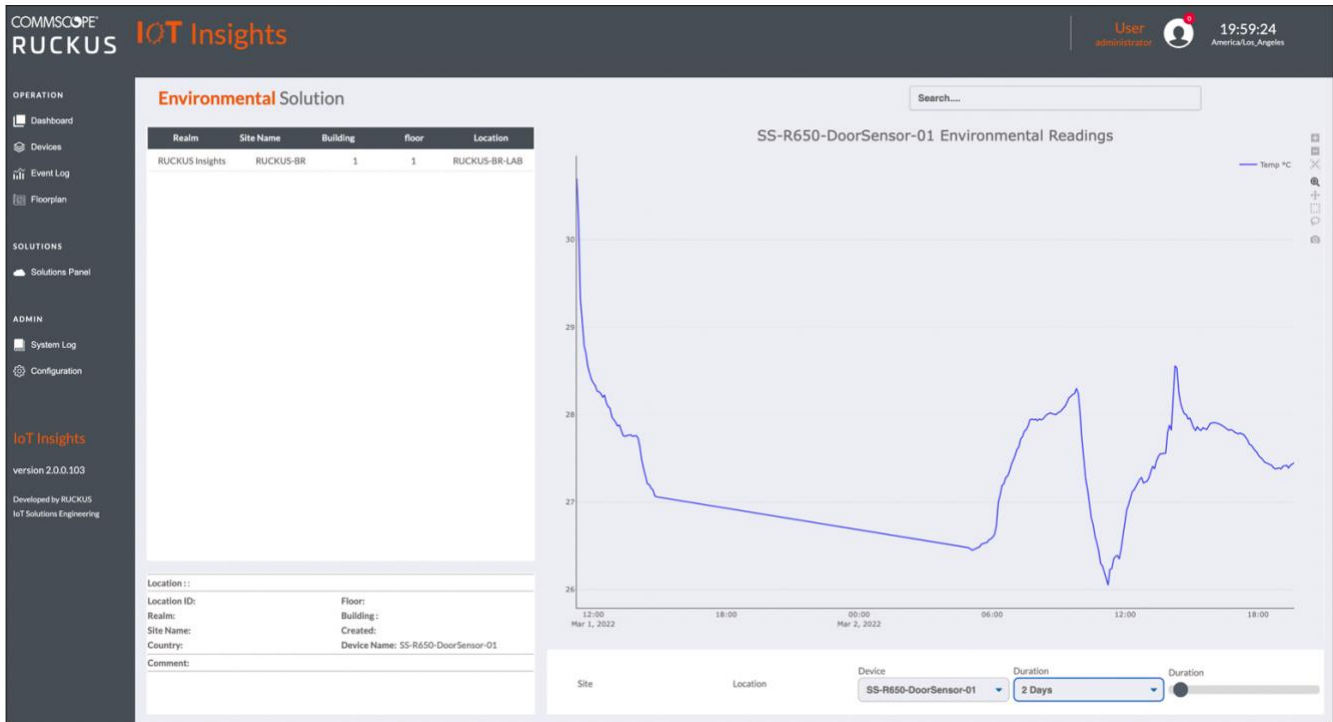
Occupancy Solution

Infrared motion sensors compatible with SmartThings can be added to floorplans and used in the Occupancy Solution:

THIRDREALITY Zigbee Motion Sensor

Ecolink Z-Wave PIR Motion Detector
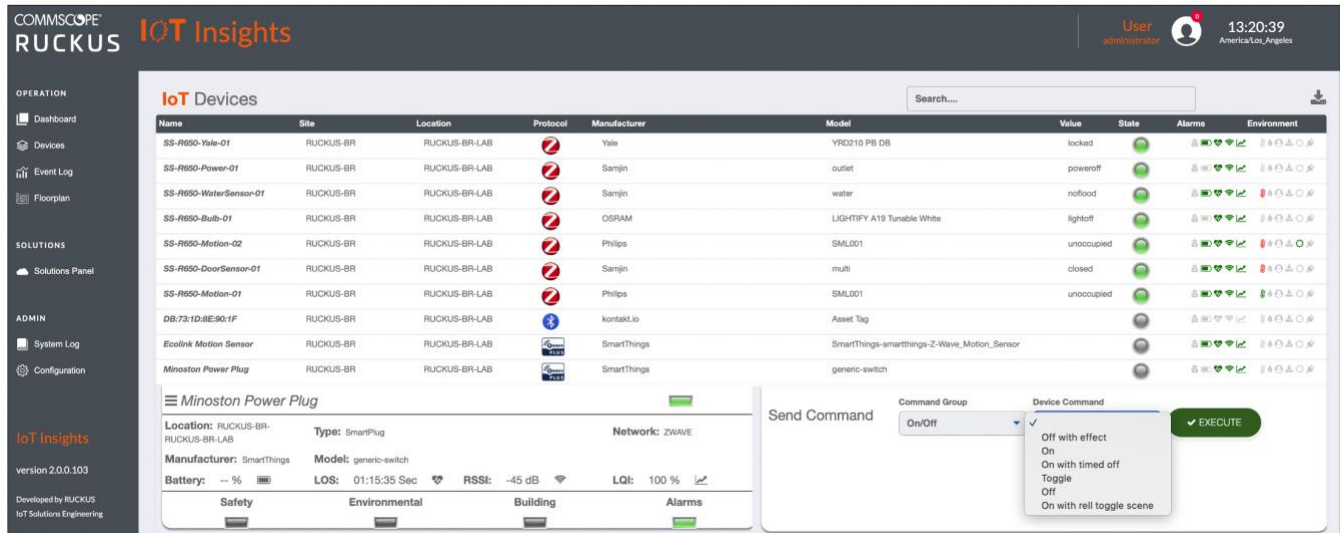
SmartThings Magnetic Motion Sensor

Environmental Monitoring Solution

Temperature sensors, humidity sensors, thermostats, water leakage sensors, all compatible with SmartThings, can be used in the Environmental Solution:
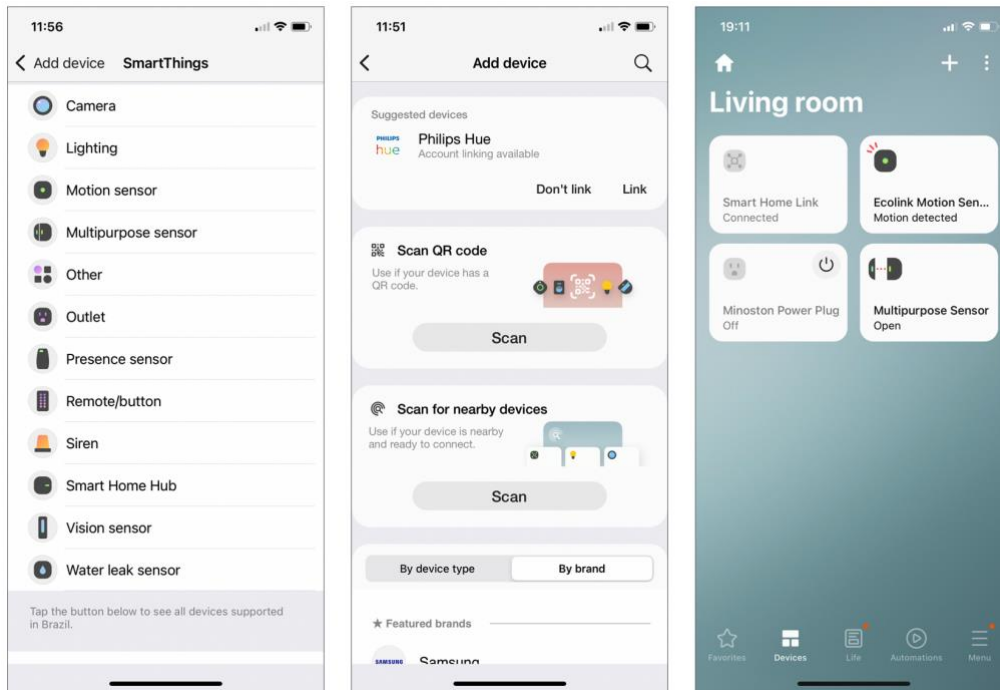

SmartThings Magnetic Motion Sensor Honeywell T6 Pro Smart Thermostat SmartThings Water Leak Sensor

Device Control using RUCKUS IoT Insights

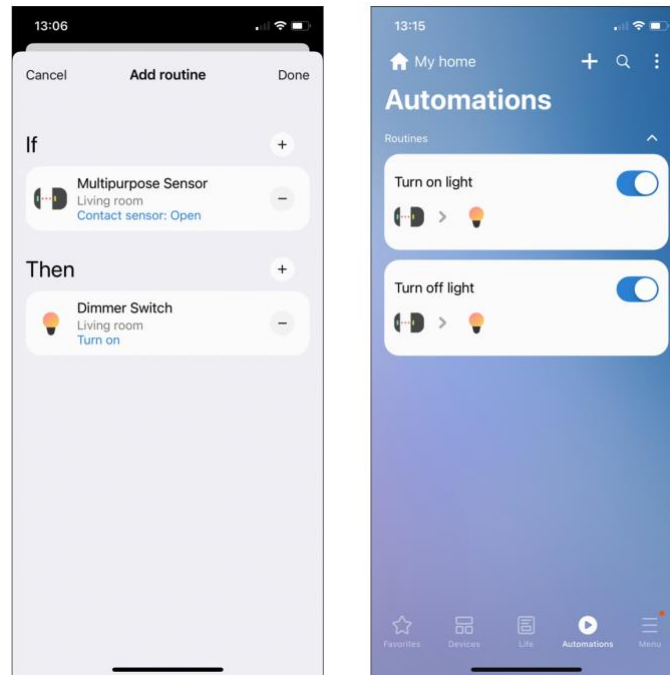The SmartThings devices and sensors can be controlled from the Devices panel in RUCKUS IoT Insights:

Onboarding Devices Using the SmartThings App

The SmartThings devices and sensors are onboarded to the SmartThings cloud using a smartphone app, downloaded from the Apple or Google Android app stores. You can add the device by scanning its QR code or scanning for nearby devices:

Automations Using the SmartThings App

The SmartThings app can be used to create automations using the devices that are onboarded in the SmartThings cloud. The following example shows a door sensor turning a light bulb on and off:

Conclusion

Almost 75 percent of people recently surveyed by SmartThings reported that smart home capabilities are an important feature when looking for a place to live. As a result, developers and property managers are investing in the value of creating connected living experiences. CommScope RUCKUS portfolio of converged Wi-Fi 6 and IoT solutions allow residents to receive the connected living experience they have incorporated into their lives.

In addition, by connecting home devices onto one network, real estate developers are tapping into IoT technology that optimizes maintenance, energy efficiency and an enhanced home experience. The Samsung SmartThings and CommScope RUCKUS collaboration marks a new milestone in propelling the real estate market into the future (Bart Giordano, Senior Vice President, and General Manager of RUCKUS, CommScope).

References

RUCKUS
- RUCKUS IoT Platform - https://www.commscope.com/product-type/enterprise-networking/iot-networking/

Samsung SmartThings
- SmartThings web site
  https://www.smartthings.com/
- Samsung SmartThings press release
  https://news.samsung.com/us/samsung-smartthings-teams-with-commscope-ruckus-to-bring-next-generation-networking-to-property-developers-and-tenants/
- SmartThings partners for sensors, devices, and appliances
  https://www.smartthings.com/partners/arlo

RUCKUS solutions are part of CommScope's comprehensive portfolio for Enterprise environments (indoor and outdoor).

We encourage you to visit **commscope.com** to learn more about:

- RUCKUS Wi-Fi Access Points

- RUCKUS ICX switches

- SYSTIMAX and NETCONNECT: Structured cabling solutions (copper and fiber)

- imVision: Automated Infrastructure Management

- Era and OneCell in-building cellular solutions

- Our extensive experience about supporting PoE and IoT

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