
AWS
re:Invent
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TRV303

Unlock the potential of IoT in the travel and hospitality industry

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Agenda

About the travel and hospitality (T&H) vertical in AWS

The purpose of IoT in travel and hospitality

An example journey through your first IoT project

IoT reference architectures

Q&A

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Travel and hospitality vertical in AWS

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AWS is transforming the travel and hospitality industry









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Travel and hospitality customers reinvent themselves on AWS







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Not much has changed in the physical world of travel

















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How can IoT help with these challenges?

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IoT helps bridge the physical world to the digital world

Where travel is CONSUMED

Hotel, cruise ship, aircraft cabin, airport, casino, front of the house …

Where travel is CRAFTED

Maintenance hangar, airport, back of the house, aircraft systems …

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Whiteboarding:
Journey through your first IoT project on AWS

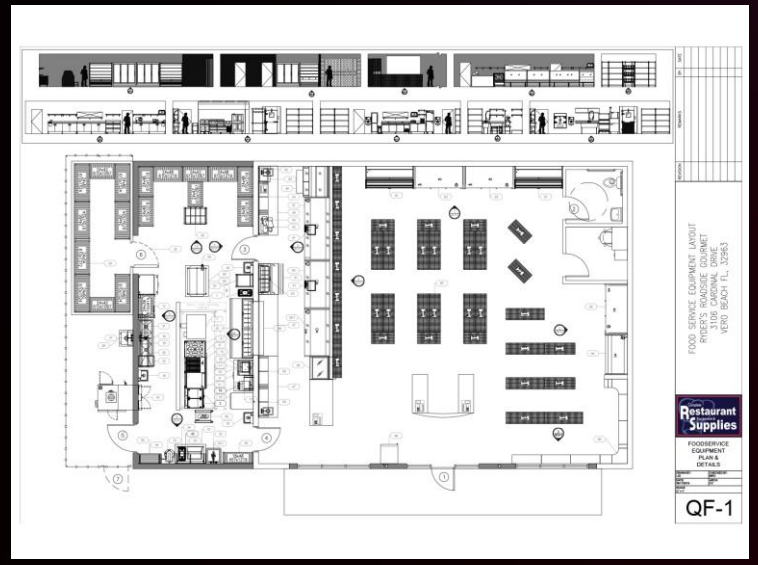
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T&H IoT Journey

Step 0 – Use case definition

DURATION
1-2 Weeks

Improve CUSTOMER experience



Optimize OPERATIONS

WHAT YOU NEED

- Access to business stakeholders
- Access to staff on location

WHAT YOU DO

- Identify key problems / optimization oportunities by interviewing stakeholders. Ex
  - Customer "hot" zones with high wait time
  - Kitchen staff painpoints
  - High cost centers (electricity consumption, food wastes)
  - Safety requirements

WHAT YOU GET

- Success criterias and associated metrics (Cost saving target, wait time reduction, order prep time reduction…)

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T&H IoT Journey

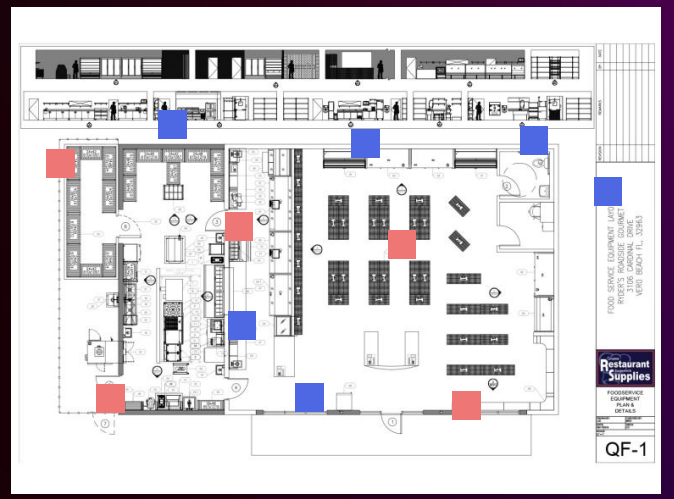
Step1 – Planning for instrumentation

DURATION
1-2 days per venue

Hardware



Floor Plan



WHAT YOU NEED

- A floor plan for the physical location
- An device vendor specialist
- Your IT team

WHAT YOU DO

- Plan Access to power and network for gateways
- Identify Environmental conditions (indoor/outdoor)
- Choose sensor type (Humidity, temperature, people counting, presence detection)
- Validate sensor capability (min/max temperature, probe, offline logging…)
- Validate gatweway capability (range, 3G, SW/HW)

WHAT YOU GET

- # Devices of each type
- # Gatways
- Instrumentation floor plan
- Harware costs
- Business case

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T&H IoT Journey

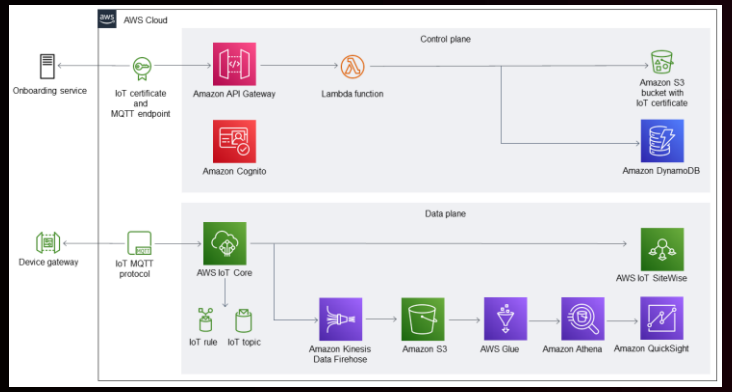
Step 2– Setting up the data feed

DURATION
4 hours + 3-5 days for shipping

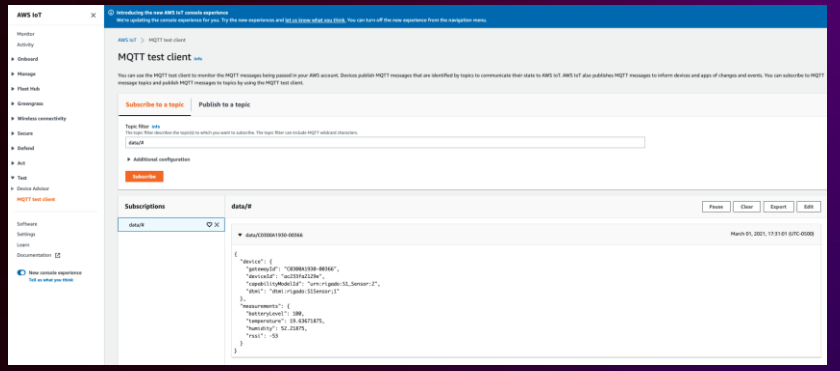
Hardware



AWS IoT Core landing zone



AWS IoT test client



WHAT YOU NEED

- Approval to Move forward
- Purchased devices
- AWS Account with the appropriate permissions

WHAT YOU DO

- Shipping the device ahead of time
- landing zone is deployed successfully
- Making sure all device and gateways power up and send data
- Register your gateway with AWS landing zone
- Customize IoT rules to sensors

WHAT YOU GET

- Data feed to AWS
- Successful test of gateways and sensors

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T&H IoT Journey

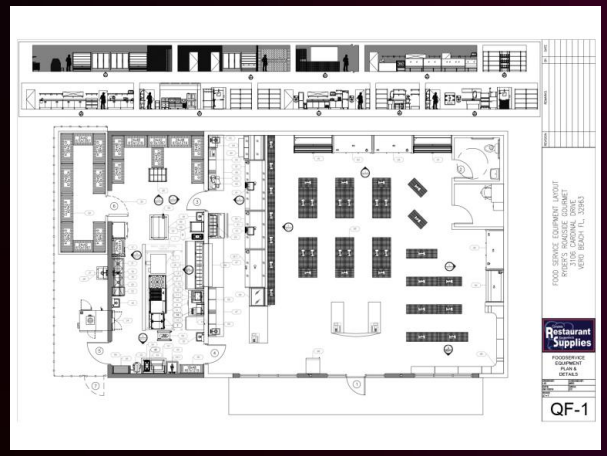
Step 3– Instrumenting your physical location

DURATION
1-2 days per venue

Hardware



Venue



WHAT YOU NEED

- An authorized installer with access to the physical location (Typilcaly your network/IT team)
- The devices (BLE, LoRaWan, Wifi…) and gateways (HW/SW)
- The plan from step 1

WHAT YOU DO

- Install the gateway, senors and powers all devices

WHAT YOU GET

- All sensors and gateway instealled and powered up
- Data from all sensors is reaching the AWS IoT landing zone

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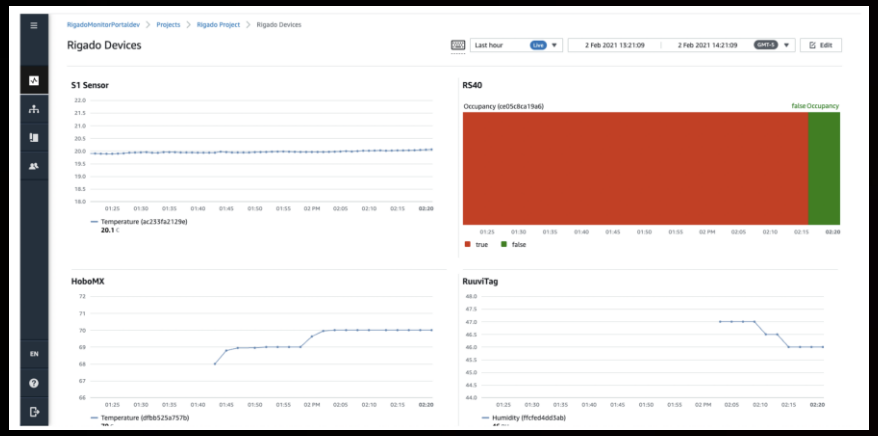
T&H IoT Journey

Step 4 – Configure real time and historical dashboard

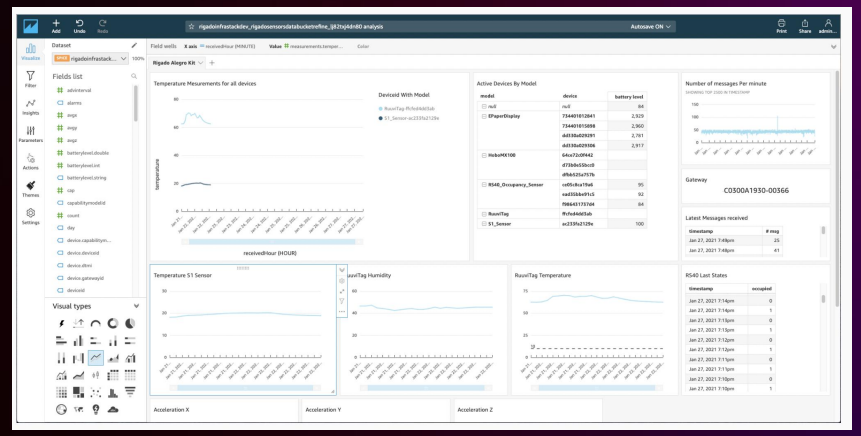
DURATION

From a few hours to a few weeks depending on the type of usage.

AWS IoT Sitewise



Amazon QuickSight



WHAT YOU NEED

- Successful completion of all previous steps

WHAT YOU DO

- [BASIC] Use the AWS IoT Sitewise and Amazon QuickSight to buiuld visualization for real time and historical data
- [ADVANCED] Use AWS IoT Events to build more advanced use cases (ex temperature monitor)
- [EXPERT] Build a custom UI using AWS Amplify, a digital twin using AWS IoT TwinMaker, Train an AI model using Amazon SageMaker

WHAT YOU GET

- Real time and historical visual insights from the physical location

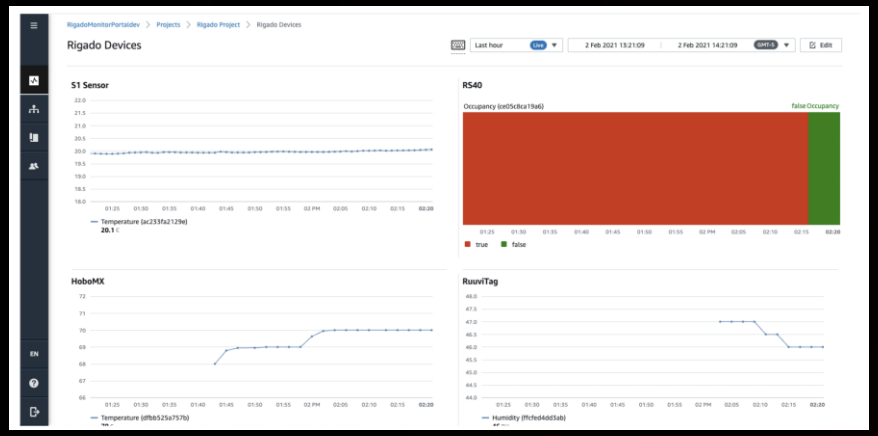
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T&H IoT Journey

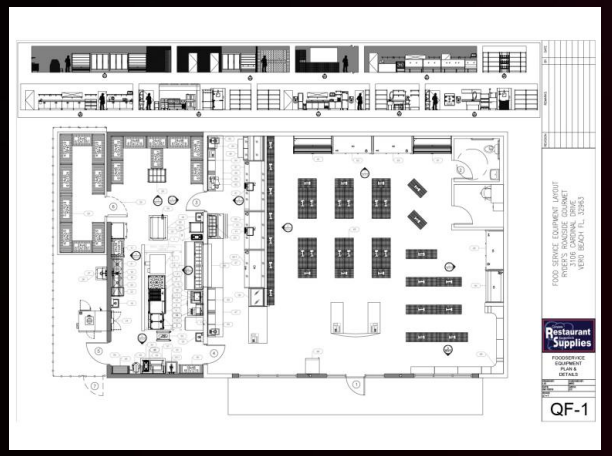
Step 5 – Analyze and Iterate

DURATION
4 hours + 3-5 days for shipping

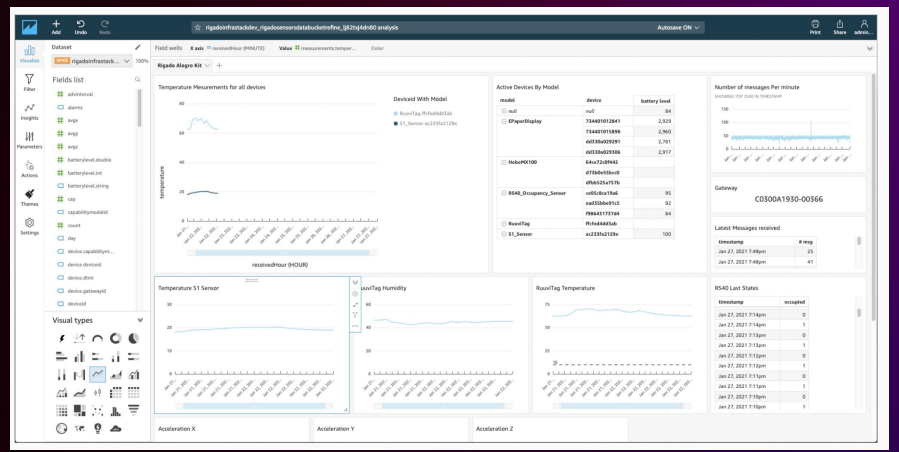
AWS IoT Sitewise



Venue



Amazon QuickSight



WHAT YOU NEED

- Successful completion of all previous steps

WHAT YOU DO

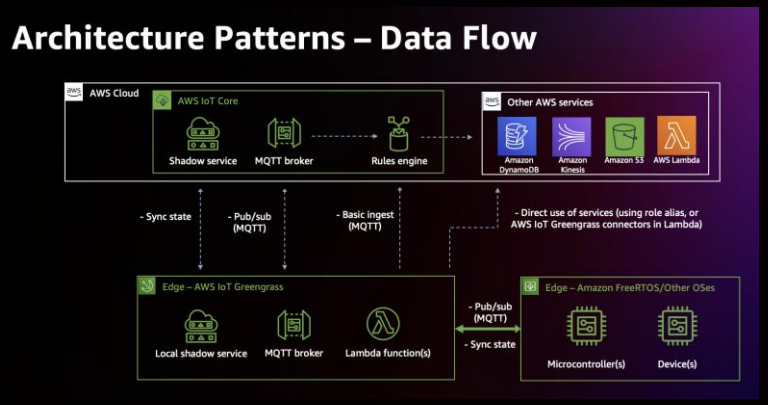
- Analyze the data against use case metrics and success criteria.
- Take action to improve customer experience and operations.
- Measure the results and iterate
- Optionally add sensors and sensor types to identify new improvement opportunities

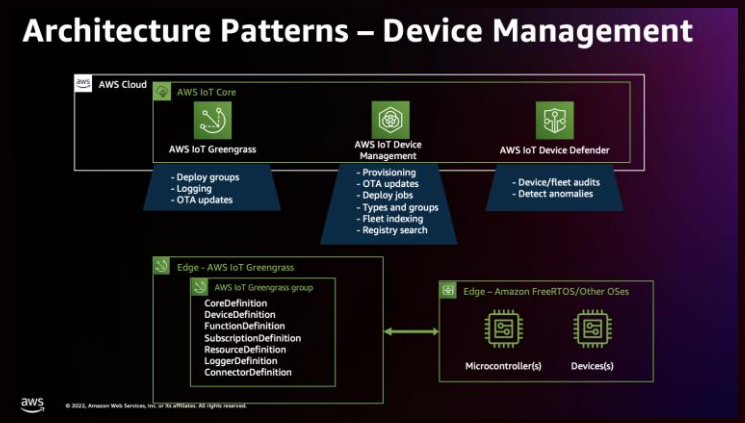
WHAT YOU GET

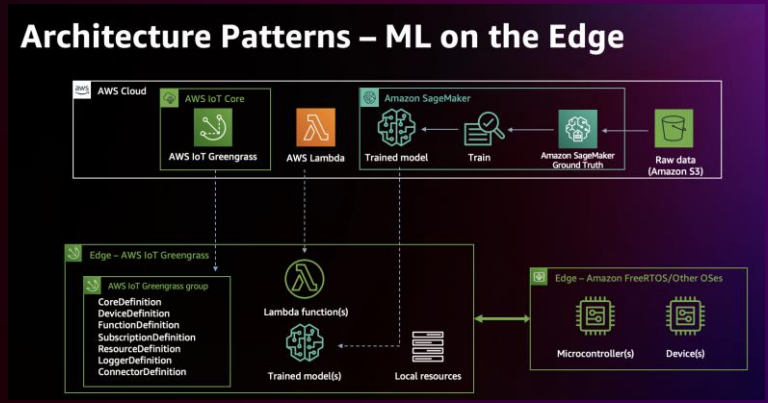
- A continuous improvement cycle derived from real time insights from the traveler journey and your staff operations.

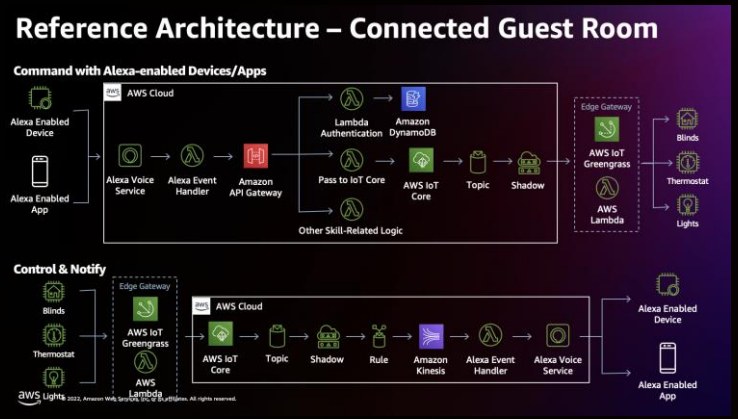
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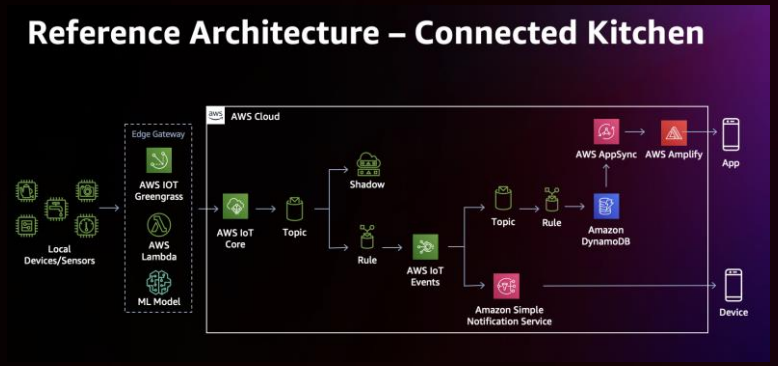
AWS reference architectures for IoT

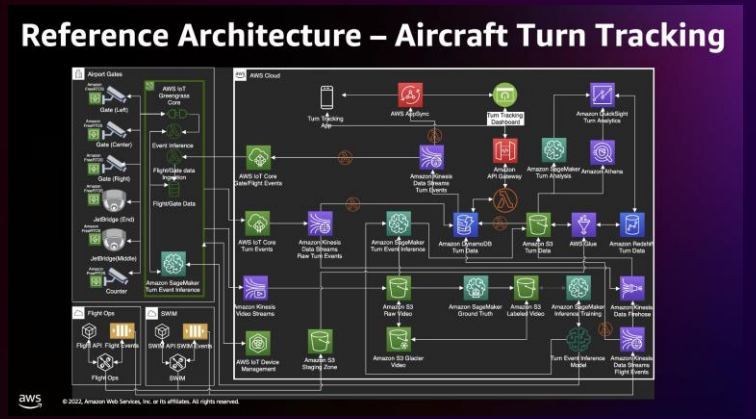












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IoT device connectivity quick start

REFERENCE DEPLOYMENT

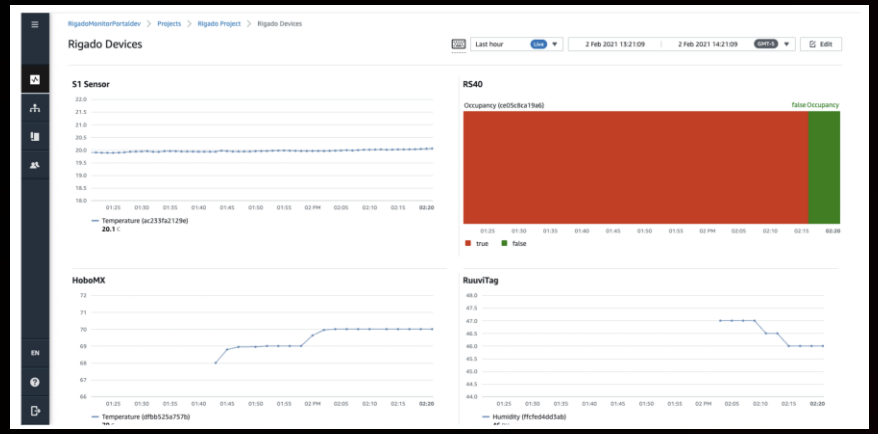
IoT Device Connectivity on AWS

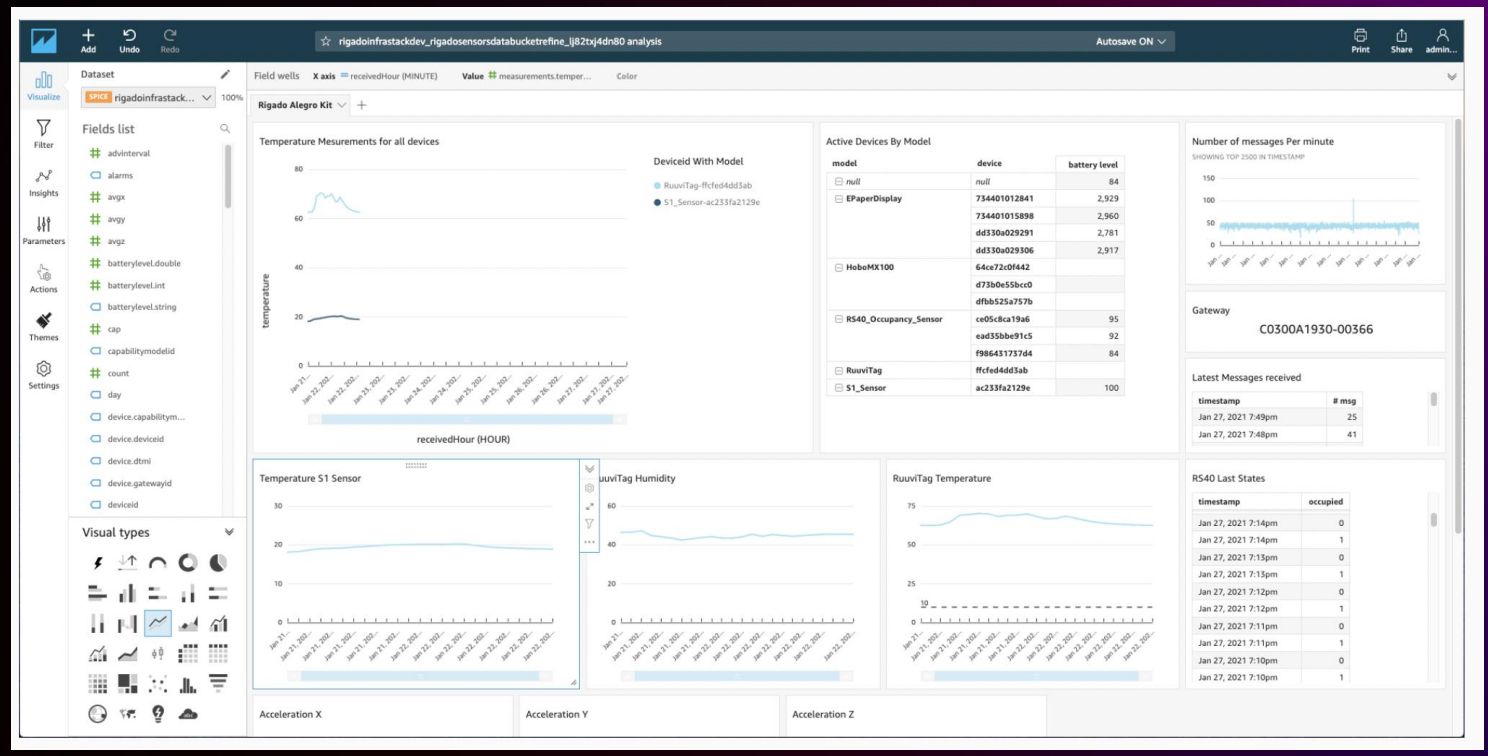
Providing an optimized onboarding experience for your smart devices

View deployment guide

This Quick Start helps AWS Internet of Things (IoT) customers get started with a landing zone on the AWS Cloud. Built in collaboration with Rigado, the Quick Start sets up the required resources and services for device onboarding along with example dashboards for visualization. Typical use cases for this Quick Start include management of IoT devices for smart kitchens and retail stores.

The Quick Start is designed to provide an optimized onboarding experience for users of the Rigado Allegro Kit. The kit helps accelerate IoT proof-of-concept and pilot projects by demonstrating real-world scenarios with live data for a variety of commercial spaces, including retail, travel and hospitality, smart buildings, and more.





Implement your first IoT proof of concept in days

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Video

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Q&A

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Thank you!

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