

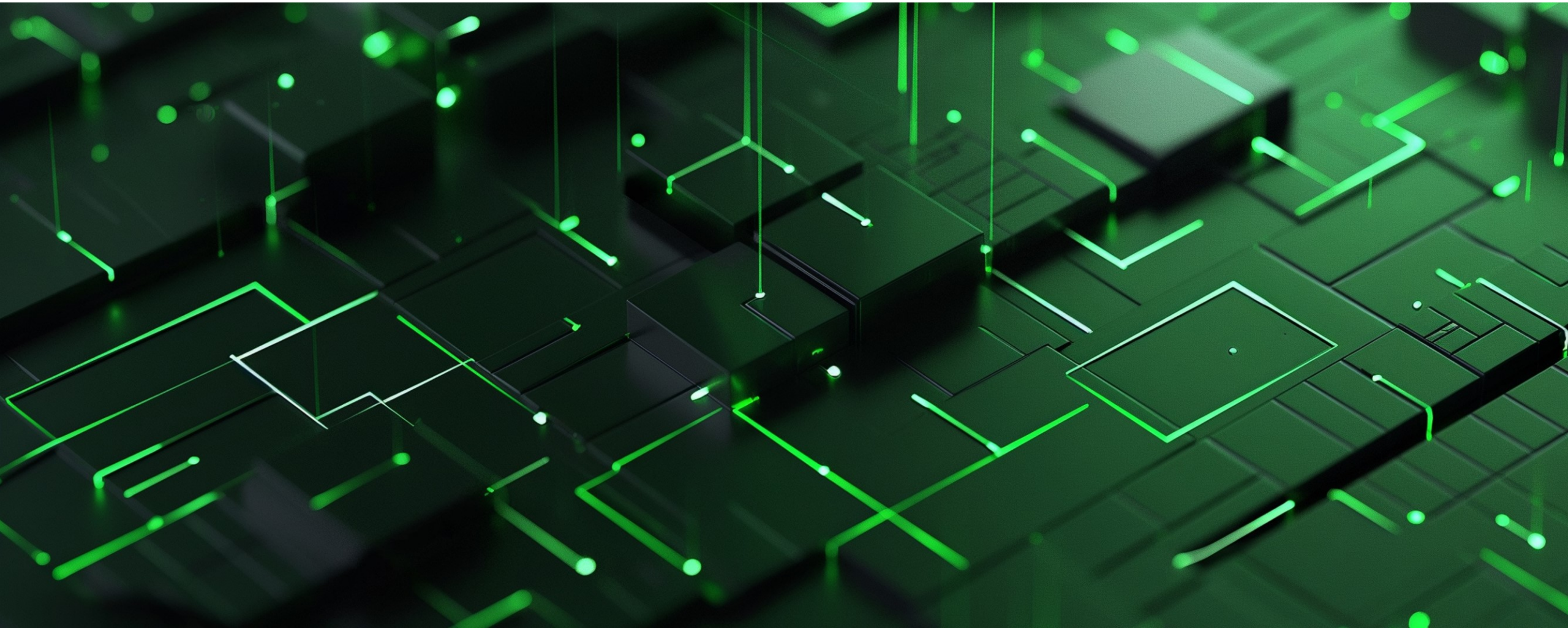
# / Avnet /IOTCONNECT Solutions Suite

Migrate Azure IoT Edge → AWS IoT Greengrass

AVNET®

/IOTCONNECT™

Manage | Secure | Deploy



# / Solution Accelerator & Marketplace Index

## /IOTCONNECT enabled solutions

Smart Generator Monitoring

Smart Warehouse Monitoring

Smart City Noise Detection

AWS IoT Greengrass

Smart Asset Monitoring

AWS Physical AI

Smart Facility Solutions

STM32 Amazon Sidewalk

Smart Factory Solutions

Security CRA

Smart Fleet Management

SaaS offering

/IOTCONNECT™

### Migrate Azure IoT Edge to AWS IoT Greengrass

Avnet's Azure IoT Edge to AWS IoT Greengrass Migration solution simplifies the transition from legacy Azure IoT Edge deployments to a secure, scalable AWS-based edge architecture. Designed for organizations approaching Azure IoT Edge end-of-life, this solution provides end-to-end migration support - from workload mapping and secure device provisioning to phased fleet rollout and cutover. By leveraging AWS IoT Greengrass V2 and AWS native services, teams can modernize their edge infrastructure, reduce operating costs, and continue scaling edge applications with minimal disruption.

# Visit Our Marketplace Listings



**AVNET** [Connected UAV Drone Platform by Indeema](#)  
By [Avnet](#) | [AWS Specializations](#)  
Indeema Software is an engineering services company specializing in custom IoT solutions, combining deep expertise in both hardware and software. Indeema delivers end-to-end development that transforms connected devices into intelligent systems, helping companies accelerate innovation and bring...

**AVNET** [/IOTCONNECT | IoT Device Connectivity](#)  
By [Avnet](#) | [AWS Specializations](#)  
[Deployed on AWS](#) [Free Trial](#) [Vendor Insights](#) [Free Tier](#)  
Avnet's /IOTCONNECT is a comprehensive solution accelerator software that facilitates IoT monitoring, and advanced analytics. It provides native support for AWS Greengrass and AWS IoT Core, enabling seamless device integration, robust security, and...

**AVNET** [/IOTCONNECT™ - Pay-As-You-Go | IoT Device Connectivity](#)  
By [Avnet](#) | [AWS Specializations](#)  
[Deployed on AWS](#) [Free Trial](#) [Free Tier](#)  
Avnet's /IOTCONNECT™ is a comprehensive solution accelerator software that facilitates IoT monitoring, and advanced analytics. It provides native support for AWS Greengrass and AWS IoT Core, enabling seamless device integration, robust security, and...

**AVNET** [Avnet's Smart Warehouse Monitoring powered by IoT and AI](#)  
By [Avnet](#) | [AWS Specializations](#)  
Avnet's Smart Warehouse Monitoring Solution powered by /IOTCONNECT, built on AWS and modern warehouses into dynamic, efficient hubs. As warehouses shift from being simple storage centers, organizations are adopting IoT-enabled...

**AVNET** [Avnet's Smart Fleet Management powered by IoT and AI](#)  
By [Avnet](#) | [AWS Specializations](#)  
The Smart Fleet Management Solution powered by /IOTCONNECT, built on AWS, offers cost and management capabilities designed to enhance efficiency, safety, and compliance for fleets. The solution leverages cloud-based analytics, IoT...

**AVNET** [Avnet's Smart Asset Monitoring powered by IoT and AI](#)  
By [Avnet](#) | [AWS Specializations](#)  
Avnet's Smart Asset Monitoring solution is a comprehensive IoT-based system designed to reduce lifecycle costs for asset-intensive industries such as manufacturing, oil & gas, logistics, and rental, powered by /IOTCONNECT, built on AWS, this...

**AVNET** [Avnet's Smart Generator Monitoring powered by IoT and AI](#)  
By [Avnet](#) | [AWS Specializations](#)  
Avnet's AI-based Smart Diesel Generator Monitoring solution, powered by /IOTCONNECT, provides an approach to safeguarding your business continuity. This end-to-end system provides centralized monitoring of multiple industrial diesel generators, allowing you to...

**AVNET** [/IOTCONNECT | IoT Device Connectivity](#) info  
Sold by: [Avnet](#) [↗](#)  
[Deployed on AWS](#) [Free Trial](#) [Vendor Insights](#) [AWS Free Tier](#)  
IOTCONNECT™ offers IoT device connectivity with real-time monitoring, advanced analytics and data visualization for seamless operations.  
☆☆☆☆☆ [10](#)

[Overview](#) | [Features](#) | [Pricing](#) | [Legal](#) | [Usage](#) | [Resources](#) | [Support](#) | [Similar products](#) | [Reviews](#)

**Overview** [Try agent mode](#) [Create proposal](#) [Ask question](#)

**/IOTCONNECT Platform**

**Video 1**

Avnet's /IOTCONNECT is a comprehensive solution accelerator software that facilitates IoT device connectivity, real-time monitoring, and advanced analytics. It provides native support for AWS Greengrass and AWS IoT Core, enabling seamless device integration, robust security, and easy and clear methods to gain valuable insights for businesses to optimize operations and drive innovation. With diverse connectivity options, strong data protection measures, and true scaling capabilities, /IOTCONNECT empowers organizations to leverage the full potential of IoT technology and accelerate digital transformation.

/IOTCONNECT's comprehensive ecosystem and pre-built solutions reduce the time and effort required to bring IoT products and services to market.

Pre-connected device enablement: Easily connect and manage IoT devices without complex configurations.

**Highlights**

- Simplified IoT deployment: /IOTCONNECT offers a user-friendly interface that simplifies the deployment of IoT solutions, enabling businesses to quickly connect and manage devices without complex setup processes.
- Scalability and flexibility: With /IOTCONNECT, businesses can seamlessly scale their Global IoT deployments to accommodate growing needs. The enablement suite supports a wide range of devices and protocols, allowing for flexibility and interoperability across diverse environments.
- Powerful data insights: /IOTCONNECT provides robust analytics and data visualization tools, empowering businesses to gain valuable insights from their IoT devices. Real-time monitoring and predictive analytics enable proactive decision-making and optimization of operations.

**Details**

Sold by [Avnet](#) [↗](#)

Categories [Applications](#) [↗](#)  
[Device Connectivity](#) [↗](#)  
[Device Management](#) [↗](#)

Delivery method [Software as a Service \(SaaS\)](#)

Deployed on AWS [Yes](#)

All Avnet Listings



# Migrate Azure IoT Edge to AWS IoT Greengrass

Avnet's Azure IoT Edge to AWS IoT Greengrass Migration solution helps organizations transition from legacy Azure IoT Edge deployments reaching end-of-life support to a modern AWS-based edge environment. Using a phased, low-risk approach, the solution enables customers to adopt AWS IoT Greengrass V2 while maintaining operational continuity. With Avnet expert guidance and /IOTCONNECT providing centralized visibility, customers can modernize their edge infrastructure securely and at lower cost.



**Phased, Low-Risk Migration Approach:** Moves devices in stages to minimize downtime and risk



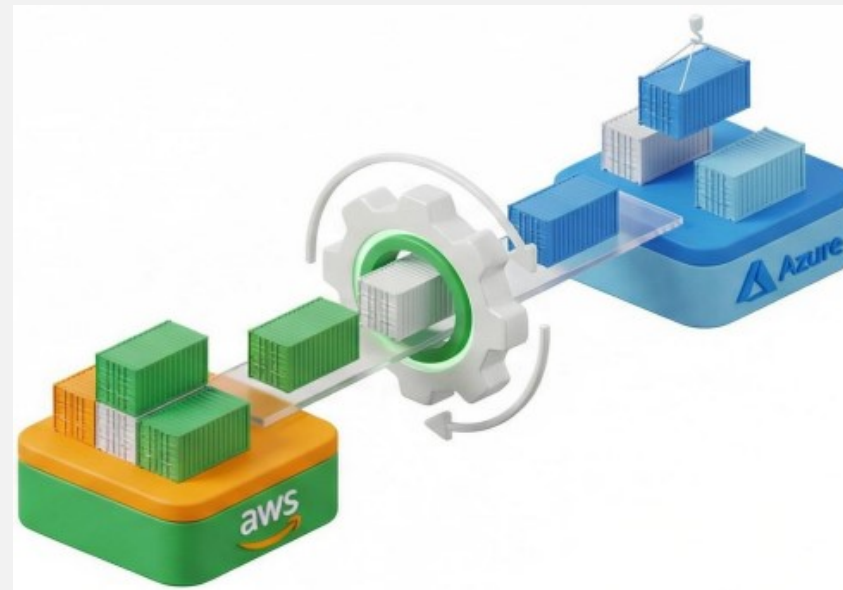
**Application Continuity:** reserves existing workloads with proven migration pattern



**Modern Security:** Uses open, standards-based mTLS with automated credential management



**Lower Operating Costs:** Maintains edge processing to reduce cloud and messaging needs



## Features

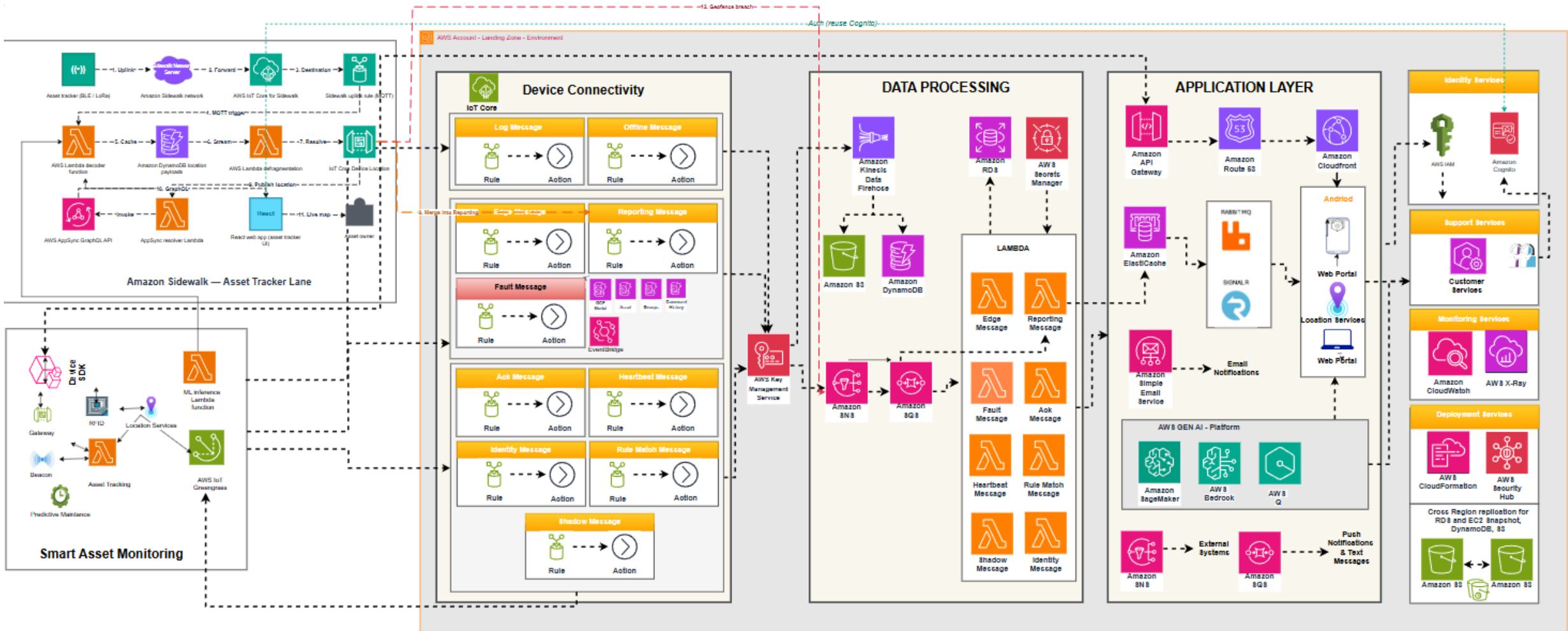
Avnet's Azure IoT Edge to AWS IoT Greengrass Migration solution enables a smooth, low-risk transition to a modern edge platform by preserving existing applications and operating costs while strengthening security. Customers benefit from a phased migration approach that minimizes downtime, utilizing open standards-based security that avoids cloud lock-in, and a scalable AWS foundation—supported by /IOTCONNECT for centralized visibility and device management.

[Learn more](#)

[Marketplace Listing](#)

**AVNET**

# / Solution Architecture – AWS IoT Greengrass



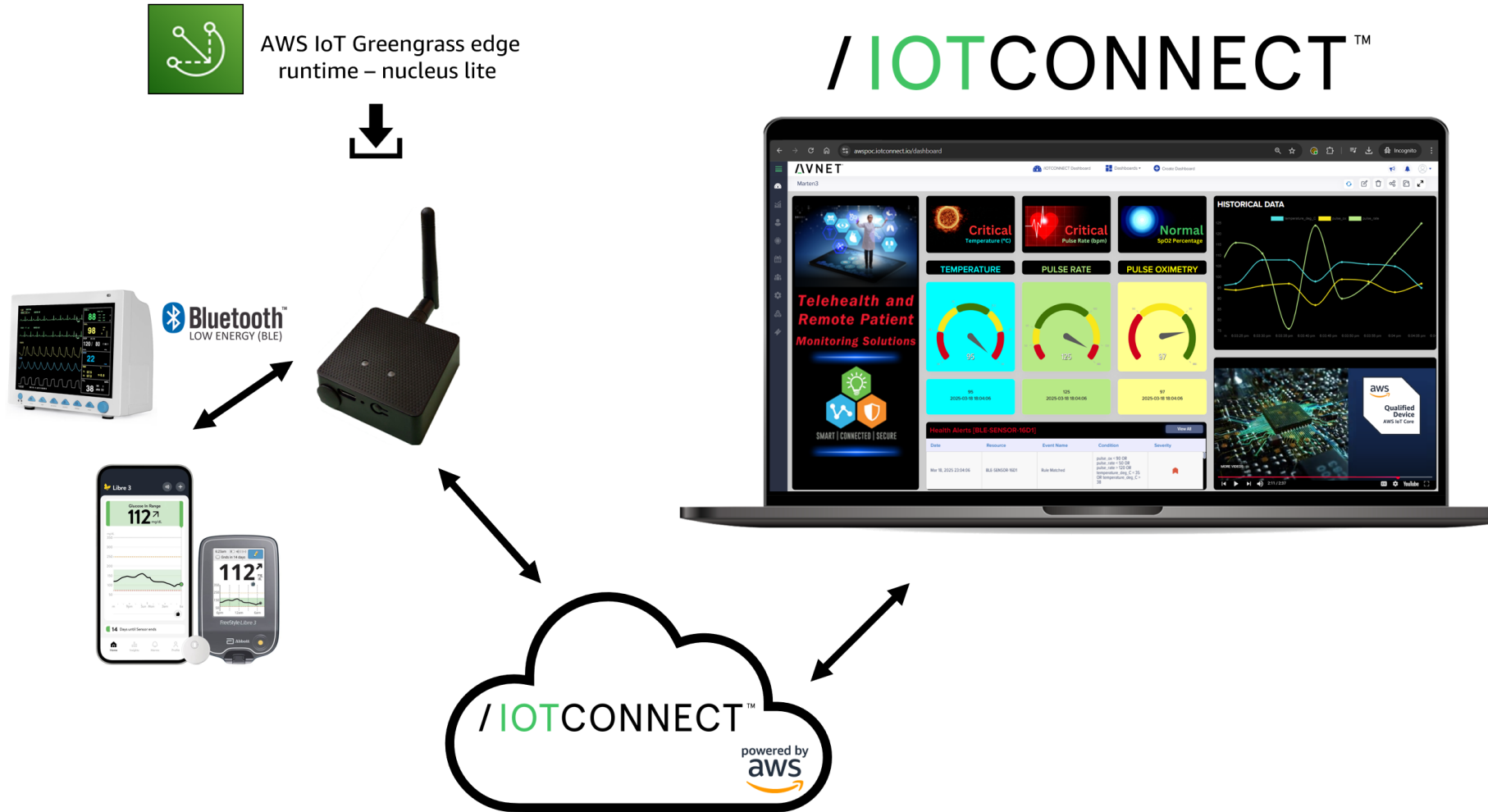
# / Use Cases

Greengrass can be installed on new and existing medical devices enabling asset monitoring and remote configuration capabilities. The lite runtime allows it to operate on a number of legacy HW platforms without requiring costly FDA (re)certification efforts. Device health monitoring and ease of remote control enable large cost savings.

Health Care

Smart Home Energy Management

Manufacturing Modernization



# / Use Cases

Thanks to the new lite runtime, Greengrass can now be installed on resource-constrained devices where previously the dependency on Java technology prevented its use.

Health Care

Smart Home Energy Management

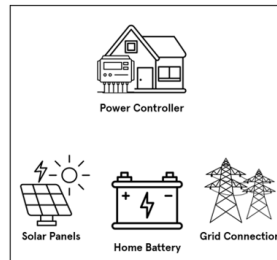
Manufacturing Modernization



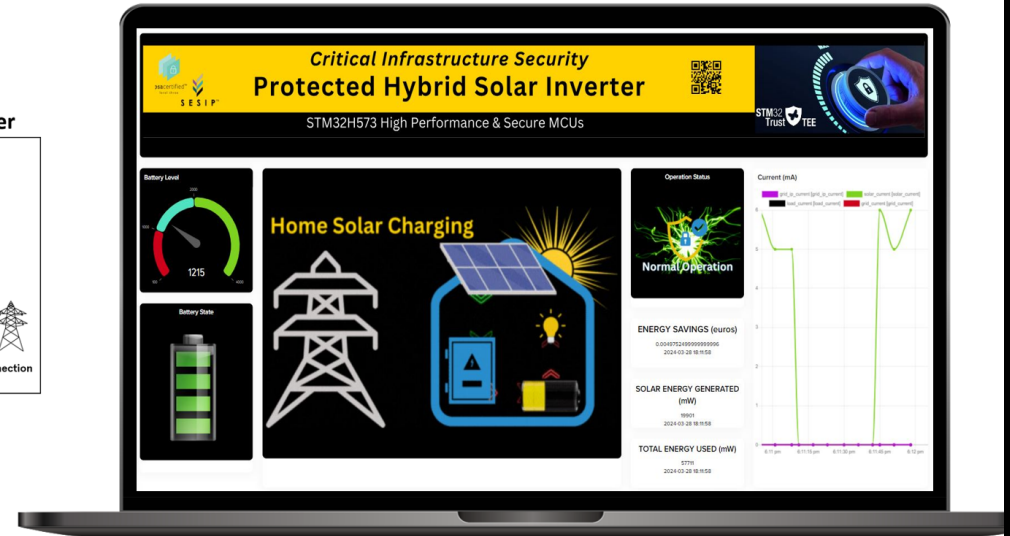
AWS IoT Greengrass edge runtime – nucleus lite



Residential Solar Inverter



# / IOTCONNECT™



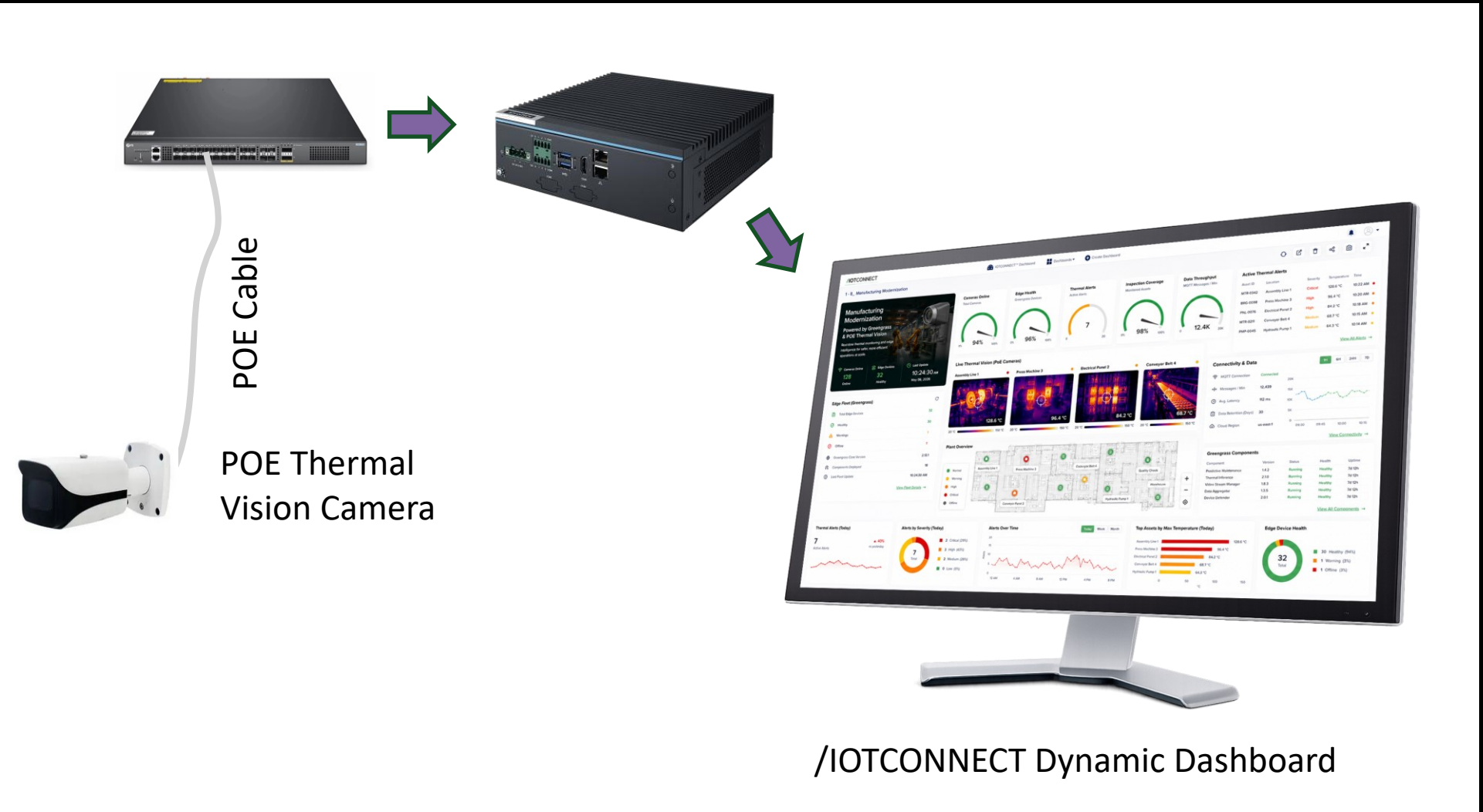
# /Use Cases

Greengrass can be installed on CPEs *inside containers*, allowing application developers to quickly build applications that connect to AWS IoT Core, sharing an MQTT connection, managing extensions/components, monitoring health and controlling their life cycle on individual devices or large fleets *without requiring TELCOs mediation*.

Health Care

Smart Home Energy Management

Manufacturing Modernization



/IOTCONNECT Dynamic Dashboard

# / Summary & Next Steps

## Benefits

1. **Secure/Flexible:** By using open, industry-standard X.509 mTLS security, AWS enables greater portability and long-term flexibility.
2. **Value:** With AWS IoT Core's low-cost, pay-as-you-go messaging model, customers can scale device connectivity more affordably, achieving up to 5× cost savings compared to Azure IoT Hub.
3. **EOL Risk:** As Azure IoT Edge LTS versions reach end of life, security updates and long-term support are retired, increasing operational risk for existing deployments.

## Outcomes

1. **Reduced Risk:** Avoids Azure IoT Edge end-of-life exposure while maintaining continuous edge operations.
2. **Improved Flexibility:** Enables a more open, portable edge architecture without cloud lock-in
3. **Lower Long-Term Costs:** Decreases messaging and operational expenses as device fleets scale.

## Next Steps

**Let's Modernize Your Edge Without Disrupting Your Business**

Contact us: [IoT@Avnet.com](mailto:IoT@Avnet.com)

# More About Avnet /IOTCONNECT & Softweb Solutions (an Avnet company)

# / About Avnet

## Quick facts

- Founded in 1921
- Headquartered in Phoenix, Arizona
- AVT listed on the NYSE since 1960
- AVT listed on NASDAQ since 2018
- #181 on FORTUNE 500 (US) in 2025

**14,500+**

Employees  
worldwide

**2,000+**

Engineers around  
the world

**3.3M+**

Engineering  
community members

**450K**

Customers in  
140 countries

**250+**

Locations  
globally

**\$22.2B**

FY25 Revenue

# Avnet Capabilities

AVNET®

CORE SEMI

softweb  
solutions

AN AVNET COMPANY

CLOUD APPLICATION  
DEVELOPMENT

TRIA™  
AN AVNET COMPANY

EMBEDDED MODULES  
& BOARDS

/IOTCONNECT™

IOT PLATFORM  
FOR OEMS

W  
Witekio

AN AVNET COMPANY

EMBEDDED SOFTWARE  
DESIGN SERVICES

DESIGNED BY AVNET

SOLUTIONS DEVELOPMENT:  
ADVANCED APPLICATIONS  
GROUP



## Cloud Migration | MAP SPRINTS

Migrate data sets and apps to the cloud securely



## AWS AI / ML | Gen AI

Rekognition, SageMaker, Bedrock & more



## Mobile Applications

Powerful mobile apps for global audiences



## Server Monitoring

Detect cloud computing and network issues



## Big Data & Analytics

Scalable and secure big data solutions



## Enterprise Applications

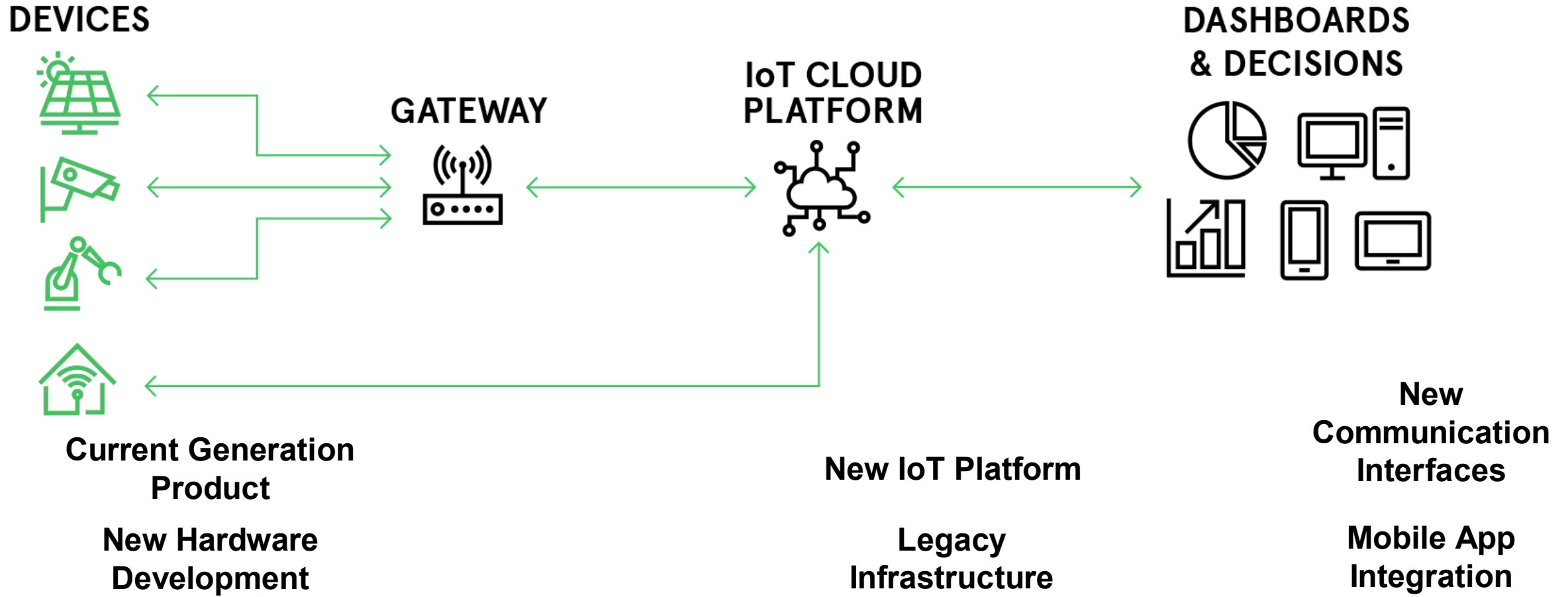
Mission-critical apps running on AWS



## Managed Services

Infrastructure management on AWS

# / Challenge of IoT



Developing an IoT product is costly, cumbersome, and time consuming.

# / Challenge of IoT

DEVICES



GATEWAY



IoT CLOUD PLATFORM



DASHBOARDS & DECISIONS



← /IOTCONNECT® →

With /IOTCONNECT, IoT development becomes simple, secure, and scalable.

## Things

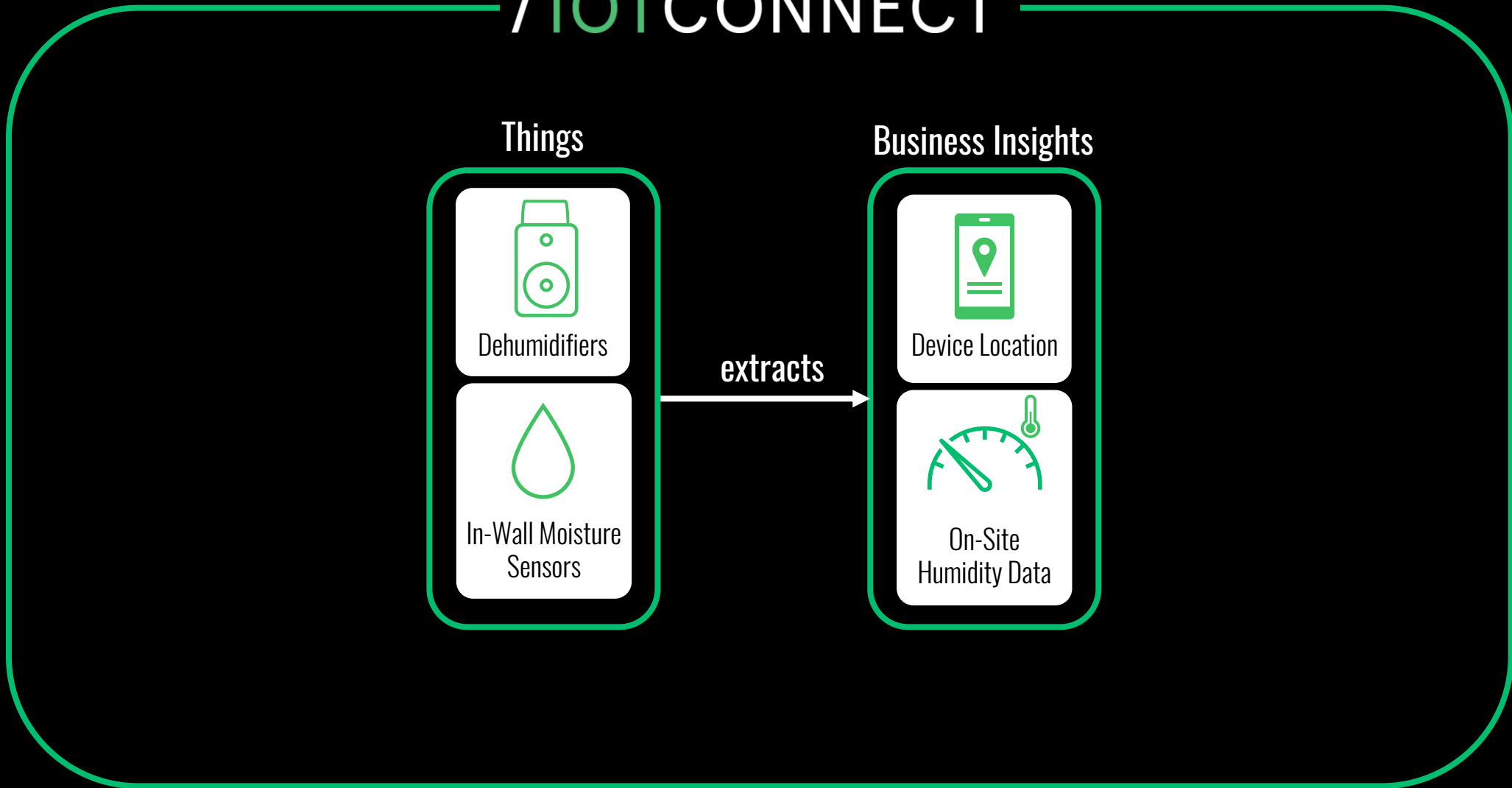


Dehumidifiers

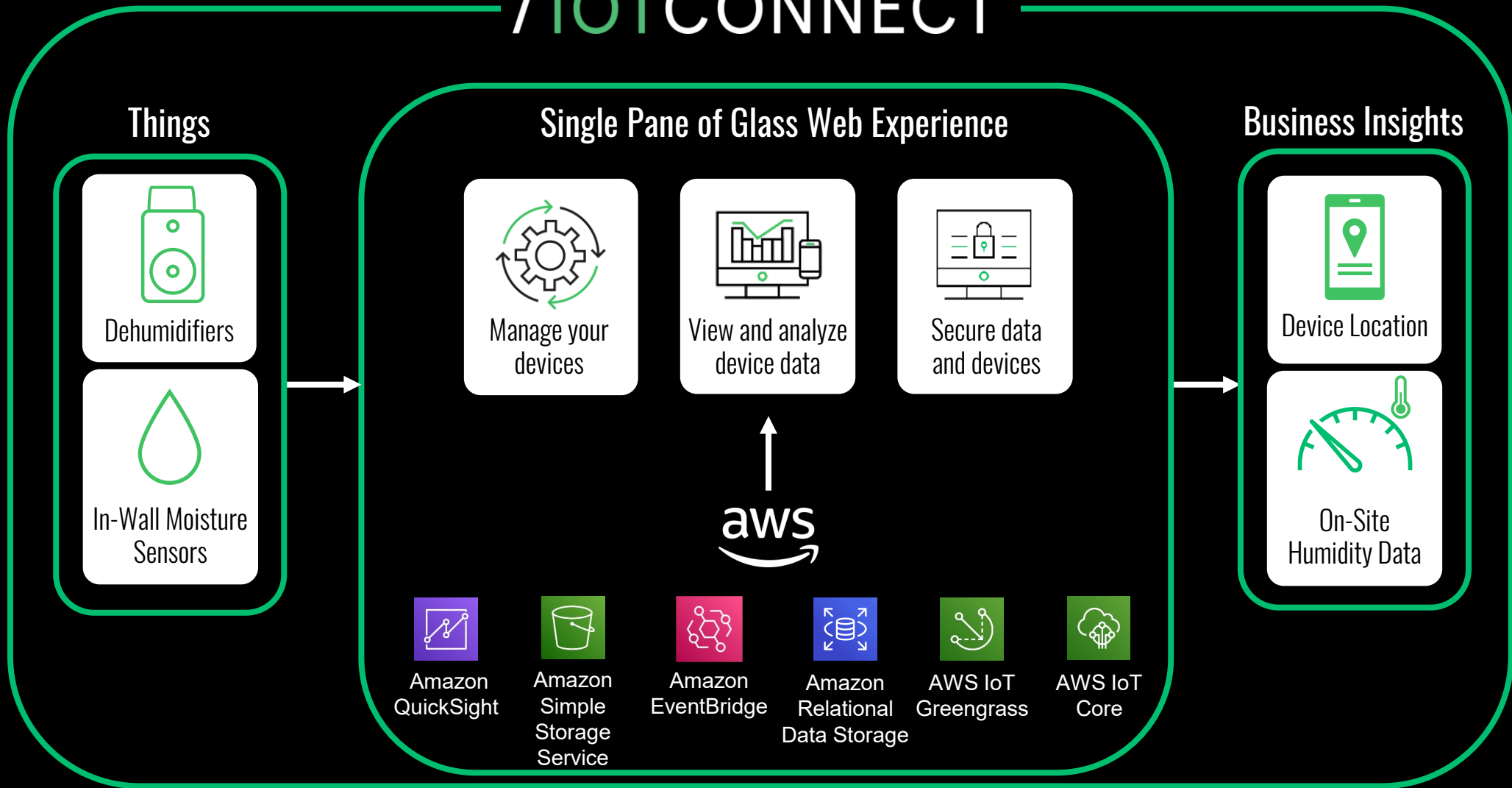


In-Wall Moisture  
Sensors

It takes **things** like **connected dehumidifiers** and **moisture sensors**

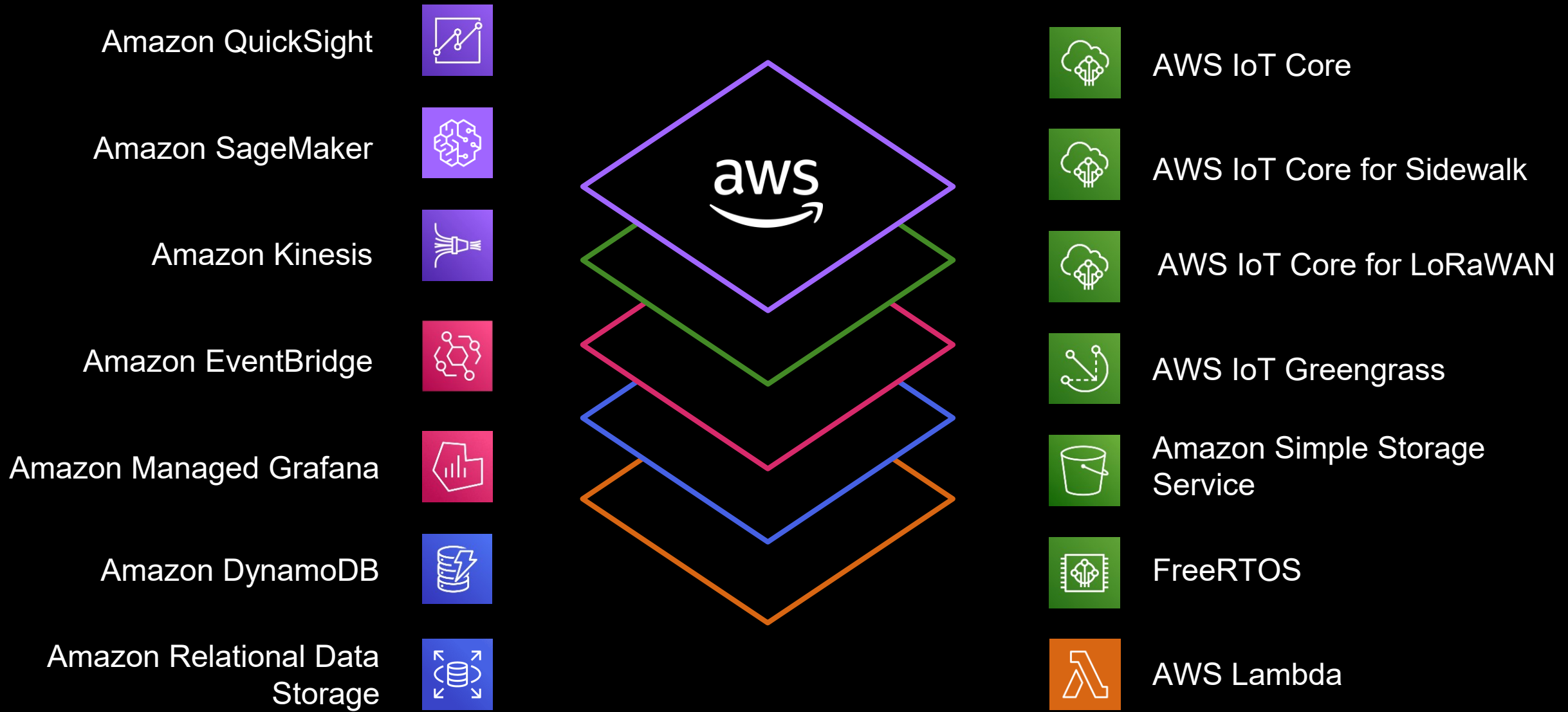


and **extracts valuable insights** to improve business intelligence



to create a **single pane of glass** experience

that's **built on AWS**



We take needed **AWS services** for IoT solution development

# / IOTCONNECT<sup>®</sup>

## Solutions Suite

AVNET



One interface for  
AWS services

And aggregate them to create **one ecosystem** for **production ready IoT**

# // IOTCONNECT SaaS Application in Action



The dashboard features a dark blue sidebar with navigation options: Dashboard, Jobs, Devices, Devices Maintenance, Users, and Notifications. The main content area has a yellow header and displays four summary cards: Total Jobs (40), Total Devices (2598), Total Users (5), and Total Notifications (8). A welcome message states: "Welcome You have 28 active jobs | 1255 of your 2598 total devices in use." Below this is a map showing job locations with a legend for Pending (yellow), Active (green), Completed (blue), and Closed (red). A "Job list" button and an "Add New Job" button are also present. A DRIEAZ LGR 6000Li advertisement is on the right. The footer includes the Command Center PRO logo and copyright information: "Copyright © 2022 Legend Brands - All Rights Reserved. Version: 1.0.1".

The top smartphone screen shows a job detail view for "Job '112 Main St'" in the "Basement" location. It includes a "DEVICES (1)" section with Bluetooth and Wi-Fi icons. The bottom smartphone screen shows the device control interface for "Revolution -123456" (Serial Number: 654321). It features "Turn On" and "Purge" buttons, a "Dehu: Off" status, "Humidistat: Idle", and a humidity control slider set to 40%. A technical specifications table is also visible:

Model	REVOLUTION
Life Hours	1
Firmware	8.9.0   1.4.3
Pump	Off
Compressor	Off
Fan	Off

The bottom navigation bar contains icons for settings, analytics, alerts, and a gear icon.

# Next Steps

**AVNET**

## /IOTCONNECT<sup>®</sup>

### Migrate Azure IoT Edge to AWS IoT Greengrass

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#### Challenges

**Overcome Edge End-of-Life & Modernization Challenges Without Starting Over**

As Azure IoT Edge approaches end-of-life, many organizations are being forced to confront difficult questions about security, scalability, and long-term platform viability. Retired security patches and limited support increase operational risk, while proprietary cloud dependencies make it harder to adapt to evolving business and technology requirements. At the same time, edge applications are often deeply embedded in day-to-day operations, leaving teams concerned about downtime, lost data, or the cost and complexity of re-architecting solutions. Customers need a clear path forward—one that protects existing investments while enabling modernization at a pace that aligns with business priorities.

#### Avnet /IOTCONNECT Solution

**Unlock a Secure, Scalable Edge Future with Avnet & /IOTCONNECT**

Avnet's /IOTCONNECT-enabled Azure IoT Edge to AWS IoT Greengrass Migration solution is designed to help customers move beyond these challenges with confidence. Using a proven, phased migration approach, Avnet enables organizations to transition existing edge workloads to AWS IoT Greengrass V2 while maintaining operational continuity and minimizing risk. By combining Avnet's migration expertise, AWS's open and standards-based edge services, and /IOTCONNECT for centralized visibility and coordination, customers gain a modern edge platform that is more secure, flexible, and cost-effective. The result is a future-ready edge environment that supports growth, reduces long-term operational burden, and allows teams to focus on innovation—not infrastructure.

---

10% 25% 50% 100%

CloudWatch Dashboards Automatic Rollback

#### Benefits

- » **Faster Time to Value**  
Accelerates migration efforts using a proven framework and reusable tooling, helping teams move from assessment to pilot and production more quickly.
- » **Simplified Device Provisioning**  
Modernizes device onboarding with automated, scalable provisioning methods that reduce manual effort and improve consistency across fleets.
- » **Built-In Operational Visibility**  
Enhances insight into device health and edge workloads through integrated monitoring and logging, making it easier to manage performance and reliability.
- » **Foundation for Advanced Edge Use Cases**  
Prepares the edge environment to support future innovations such as edge analytics, AI inference, and smarter data processing closer to devices.

Contact our IoT experts – [mvito.k@Avnet.com](mailto:mvito.k@Avnet.com)

**AVNET**

es

is customers improve security, and lower costs as their . By moving away from Azure re risk, organizations gain a ure, and future-ready edge n rely on with confidence.

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ible

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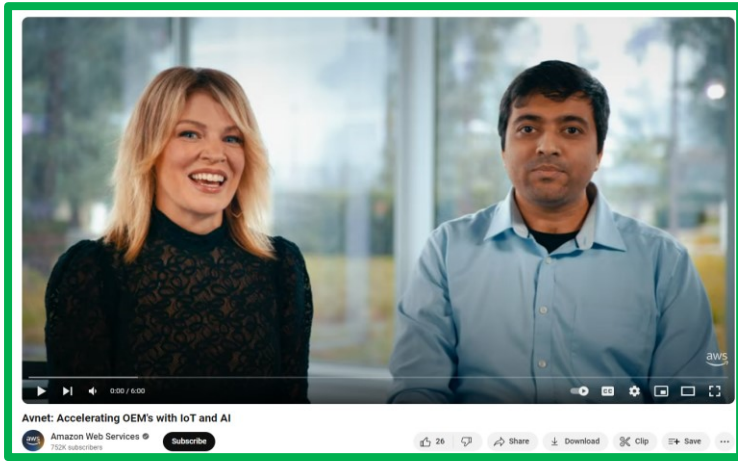
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available and a free eplace

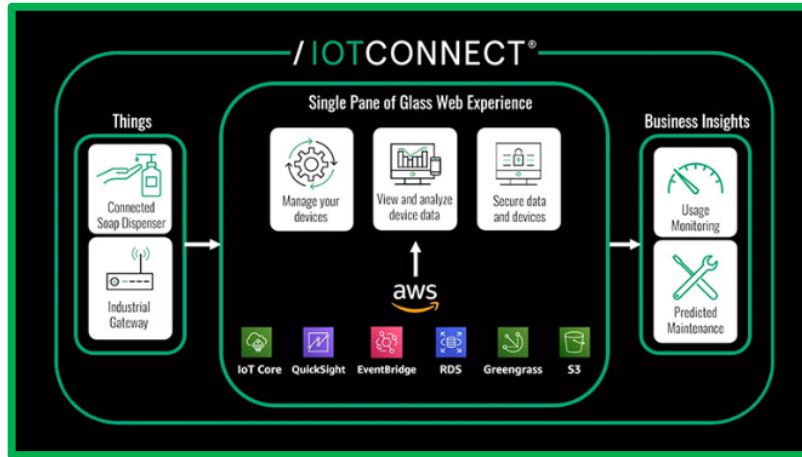
Qualified Software

Contact us!

Learn more



[Avnet and AWS:  
This is My Architecture](#)



[Avnet  
/IOTCONNECT  
Webinar](#)



[/IOTCONNECT Quick  
Start Development  
Kits](#)

# /IOTCONNECT Quick Start Enablement

IoTConnect Guides are available today on the following development kits:

- 1** **ST Discovery Kit for IoT node with STM32U5 series**  
This development kit features Wi-Fi, Bluetooth, a number of sensors and support for expansion through Arduino, STM32+ and Proton™ interfaces. Engineers can use this kit to develop connected devices such as wearable sensors, as well as smart home or smart industry applications.  
[LEARN MORE](#)
- Microchip WiFi32-IoT Development Board**  
This development board features the PIC32MZ101 WiFi module, with PCB antennas and TrustZone hardware security engine. Additional interfaces, including MicroBUS™, enable the developer to quickly add sensors, a perfect IoT development platform. Get started with a smart monitoring solution using the on-board temperature and light sensors.  
[LEARN MORE](#)
- Avnet MaaXBoard SBC based on NXP i.MX 8M**  
Based on NXP's i.MX 8M processor based single board computer, this kit is perfect for smart devices at the edge. It offers the power to process both video and audio locally and run high level operating systems (Android, Windows, IoT Core, Linux).  
[LEARN MORE](#)
- Renesas CK-RX65N Cloud Kit Based on RX65N MCU Group**  
This kit combines the RX65N MCU with an LTE Cellular CAT-M1 module and Ethernet connectivity. With IoTConnect support, you start capturing data in the field and send to the cloud in minutes.  
[LEARN MORE](#)
- Infineon XENSIV Kit with PAS CO2 sensor**  
The XENSIV™ connected sensor kit is ideal for battery-powered IoT devices. Its small size hides a lot of performance. With both Wi-Fi and Bluetooth connectivity, the kit includes a CO2 sensor and the OPTIGA™ Trust M security device. The kit works with IoTConnect's Secure Device Management features to provide IoT connectivity with total end-to-end security.  
[LEARN MORE](#)

**Pick a Board**

Access our quick start landing page to look at the variety of developer board options that we have enabled. Select which board fits your need.

**2**

## IoTConnect SDK for STM32-U5 based on X-Cube-Azure

SDK and sample application to connect [STM32U5 IoT Discovery Kit](#) to IoTConnect.

The QuickStart Guide below provides a binary image to program the board for quick evaluation of the sample application.

- [QuickStart Guide](#)

Use this Developer Guide to setup the project and modify the source to further develop using the sample application.

- [Developer Guide](#)

The BG96 Module from the [P-L496G-CELL02 Combo](#) is also supported by this project. To run your board with this module, follow the respective BG96 sections linked in the Developer or QuickStart guides.

**Access GitHub**

Click the GitHub link to see the sample code we have created for each of these developer kits. These include templates and dashboards.

**3**

## Select a Personal Plan

Test Drive

### 2 Months Free

- Messages **30K (Max)**
- Devices **5 (Max)**
- Users **5 (Max)**

**SUBSCRIBE NOW**

*No Credit Card Required.*

**Sign up for Free Trial**

Using the provided link from the quick start guide, sign up for a free /IOTCONNECT account and demo all of the design acceleration features.

**4**

Temperature: 30.979  
Pressure: 843.168  
Humidity: 14.748

Env Sensors

Time	Pressure	Humidity	Temperature
14:15 pm	843.168	14.748	30.979
14:30 pm	843.168	14.748	30.979
14:45 pm	843.168	14.748	30.979
15:00 pm	843.168	14.748	30.979
15:15 pm	843.168	14.748	30.979
15:30 pm	843.168	14.748	30.979
15:45 pm	843.168	14.748	30.979
16:00 pm	843.168	14.748	30.979

Device Command

Select Command:  Parameter Value:  **Execute Command**

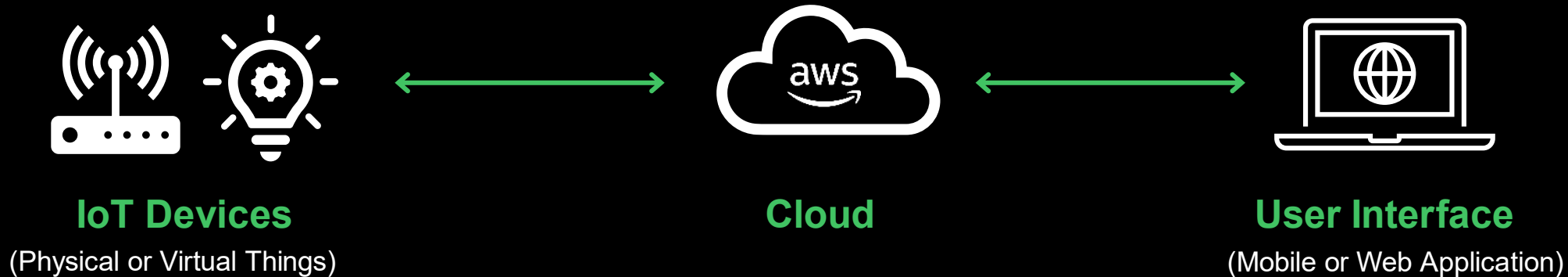
Command	Executed On (UTC)	Status	Executed Count

**Start Developing**

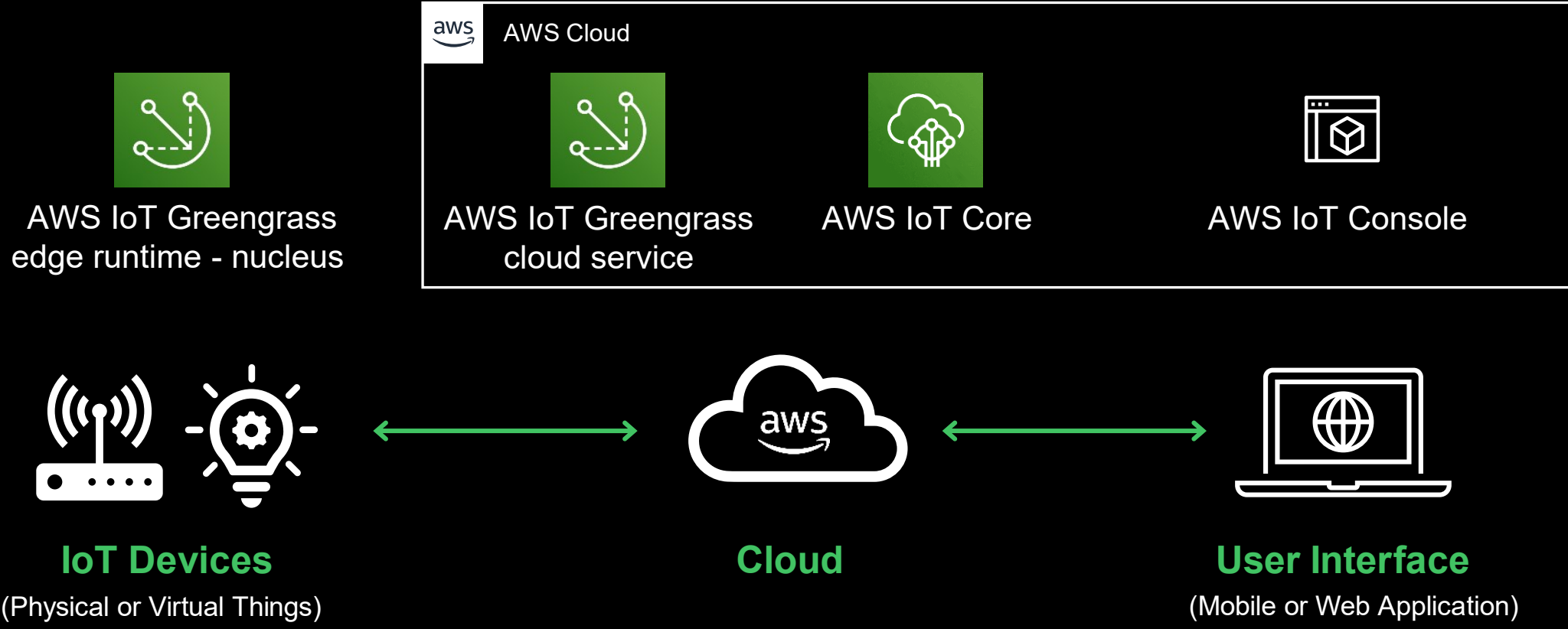
With dynamic dashboards and easy onboarding widgets, /IOTCONNECT makes designing for your application simple, secure, and scalable.

# Appendix

# / What is AWS IoT Greengrass?



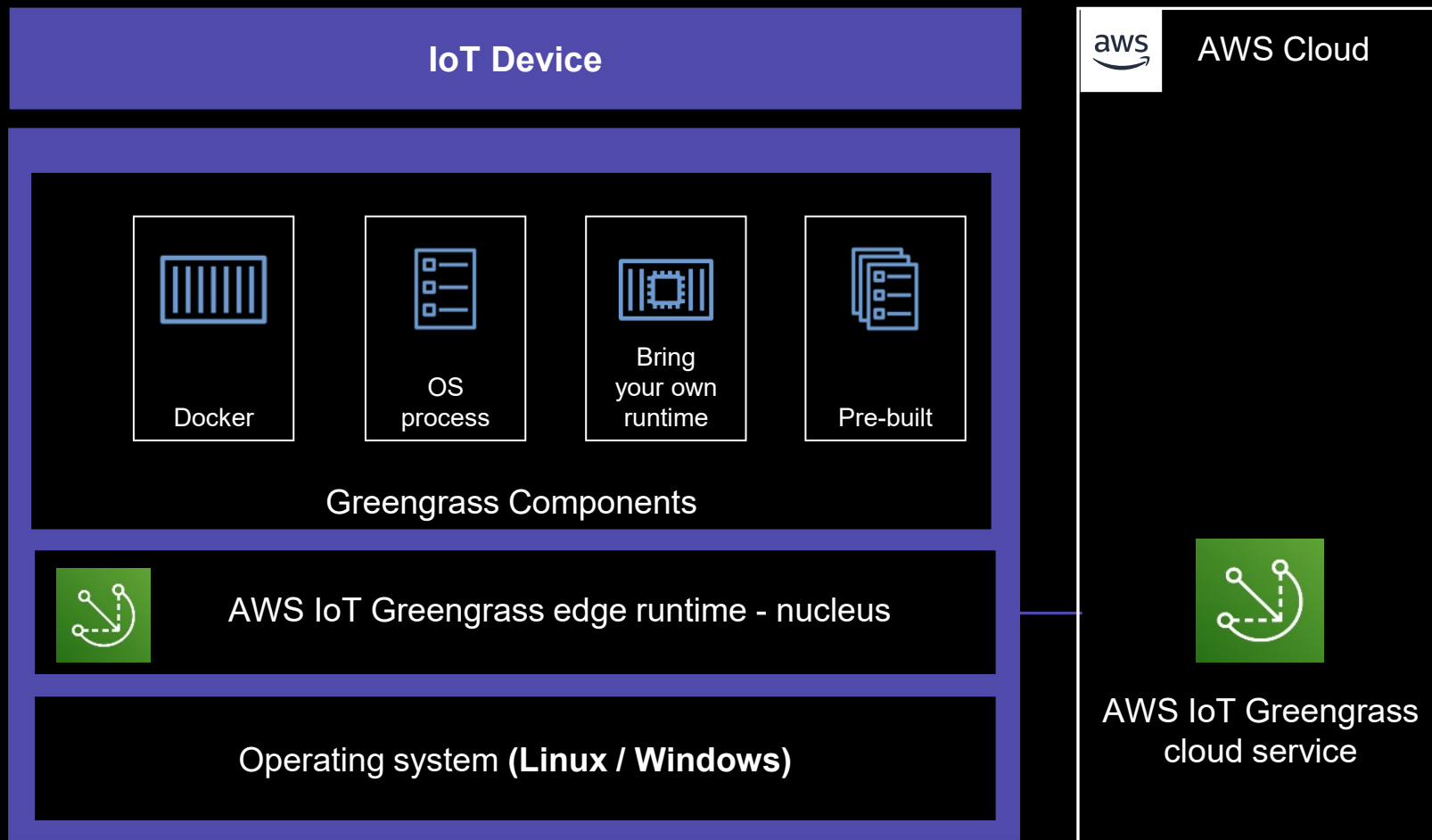
# / What is AWS IoT Greengrass?



# / AWS IoT Greengrass Breakdown

## Key features

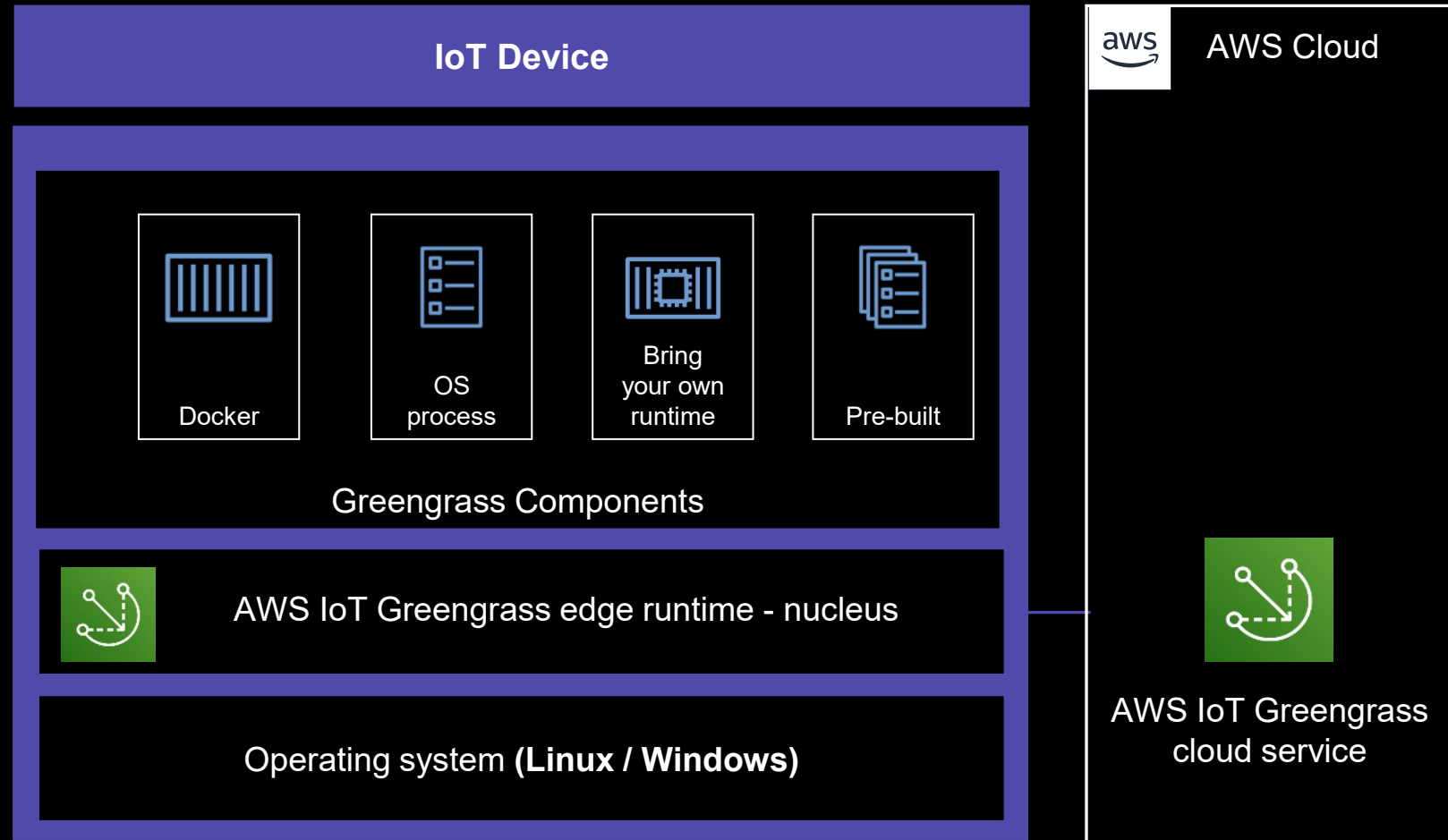
- Open source client software
- Easily share an MQTT connection across multiple applications and components
- Device-side developer tools – iterate quickly with CLI and local console
- Portable across HW (ARM/x86) and languages (C/C++, C#, Java, Python, JS/Node)
- Deploy and orchestrate containerized (and non-) applications
- Pre-built components, such as data streaming to Amazon KVS, Modbus TCP protocol support...



# / AWS IoT Greengrass Breakdown

## Key features

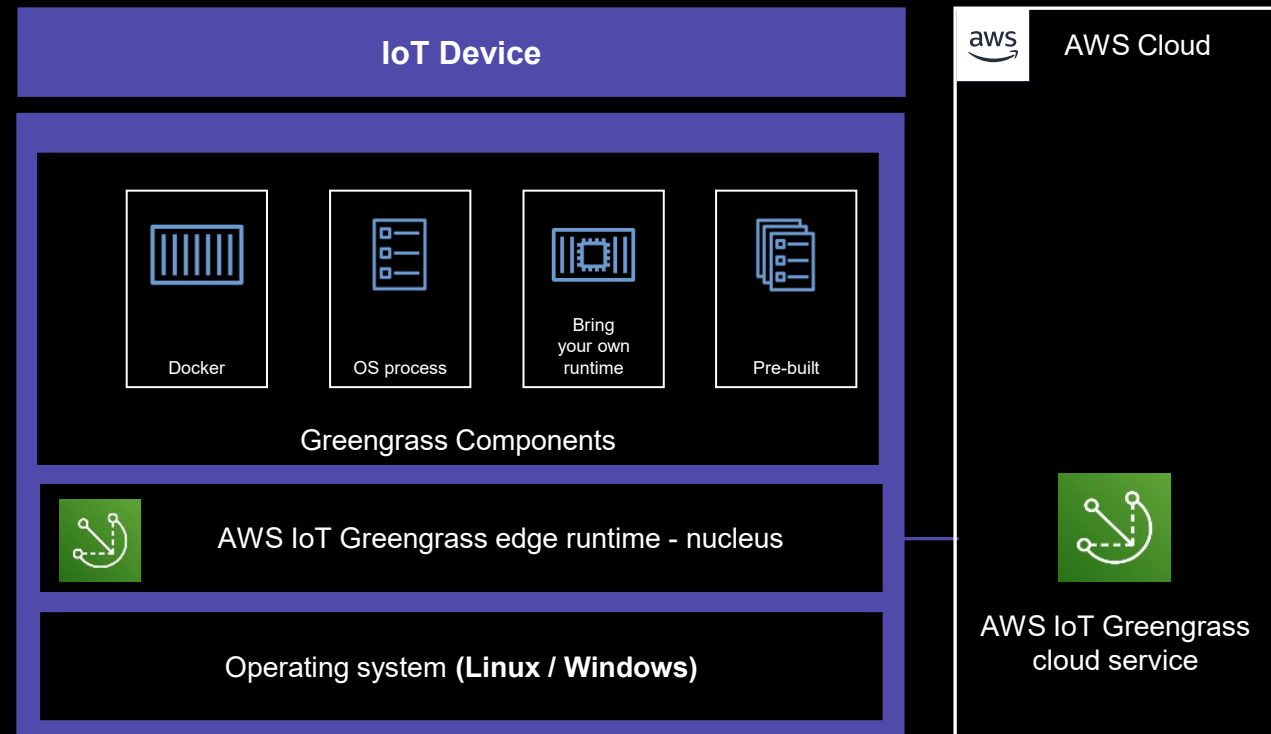
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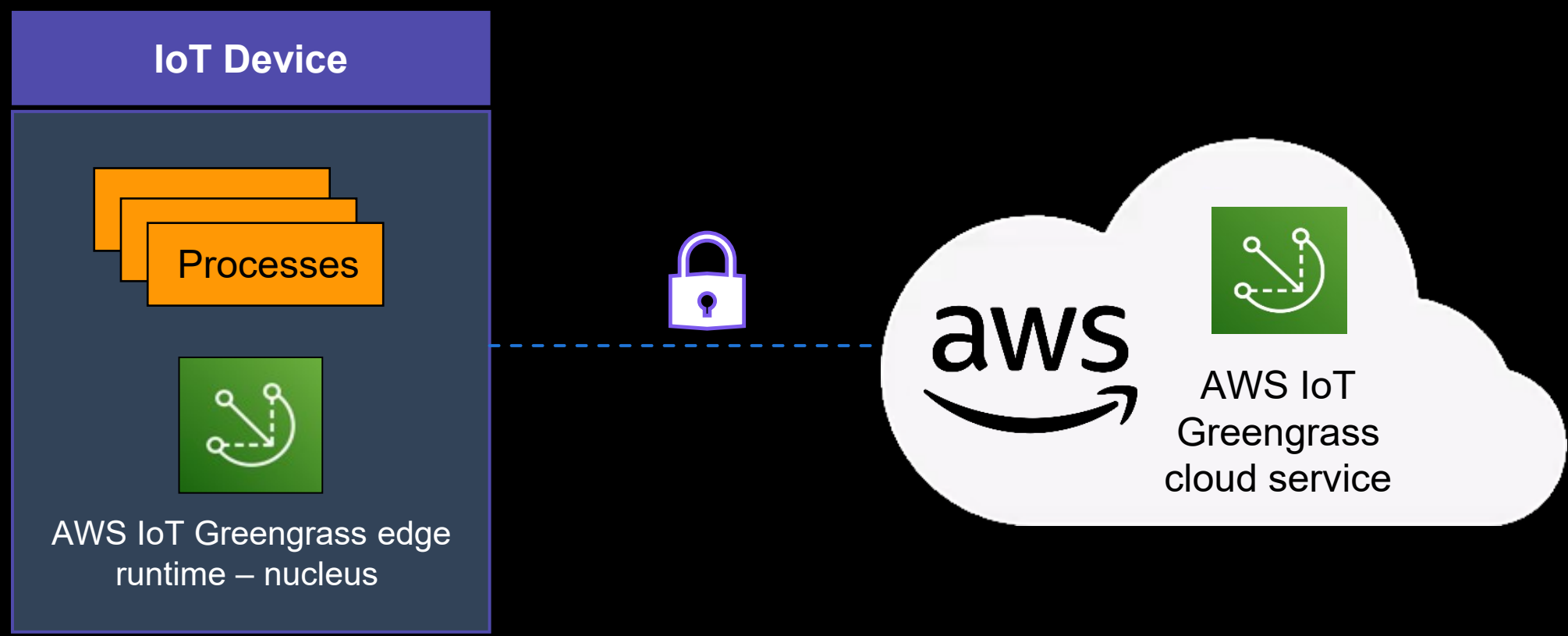
# Greengrass is your Swiss Army Knife

## Greengrass uses:

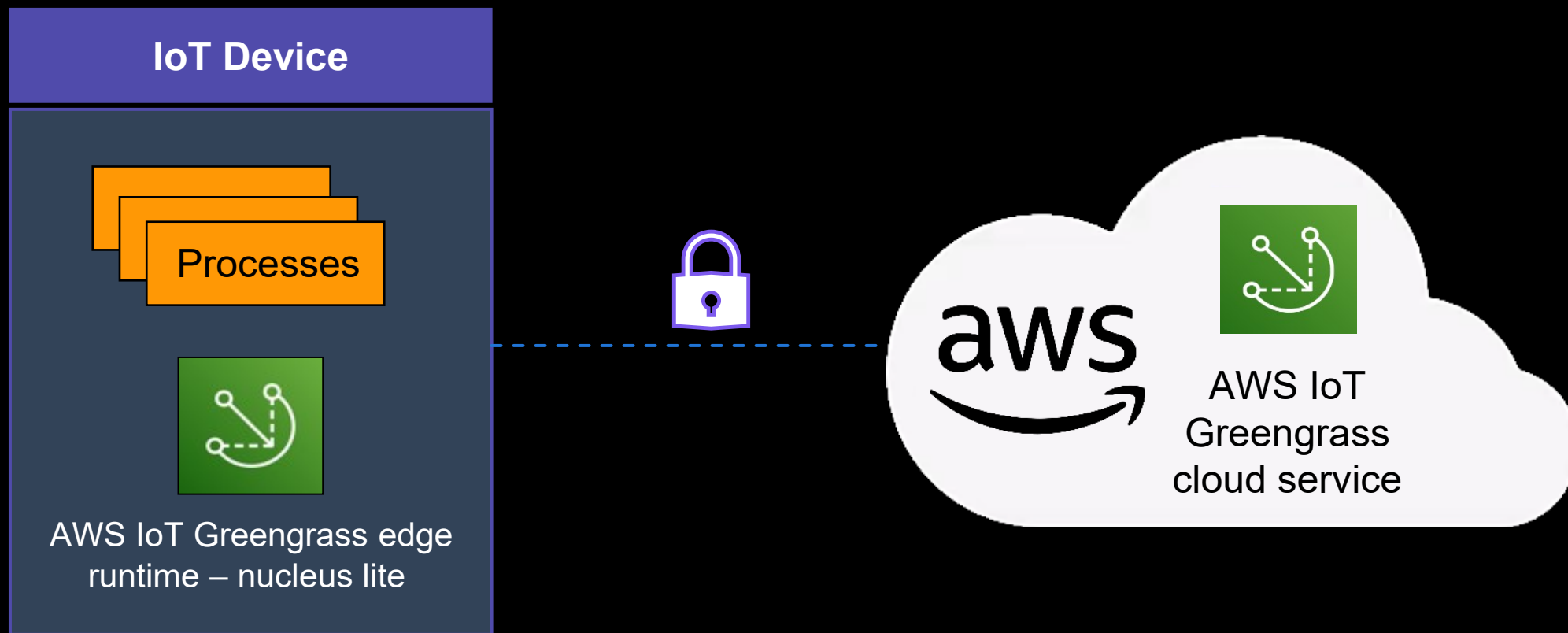
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# / What is IoT Greengrass nucleus lite?



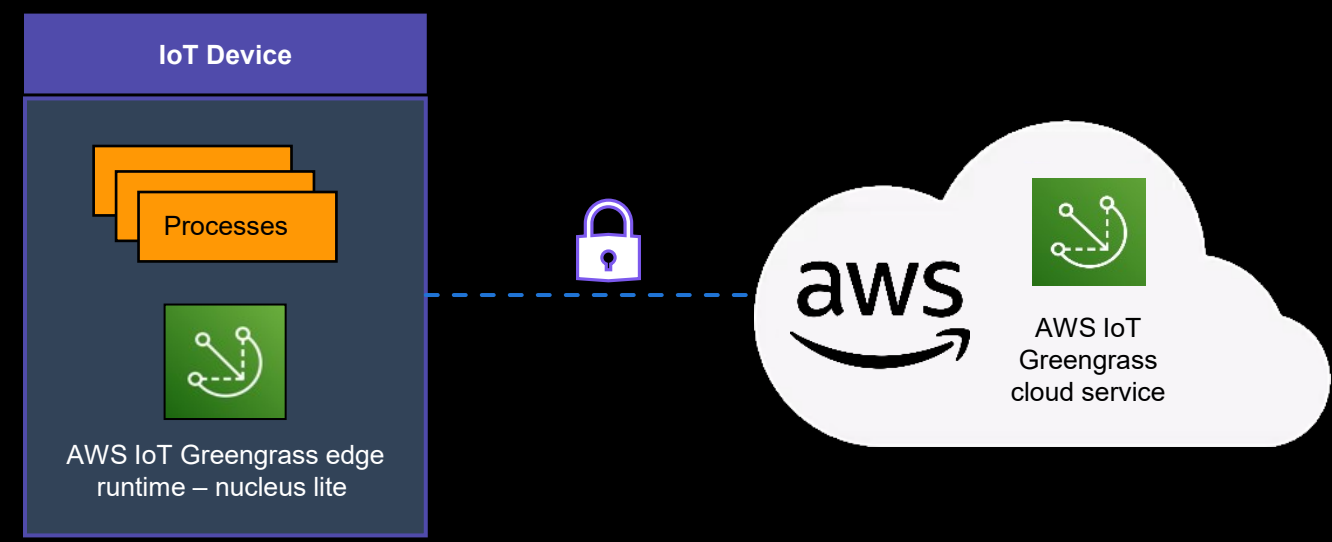
# / What is IoT Greengrass nucleus lite?



# / What is IoT Greengrass nucleus lite?

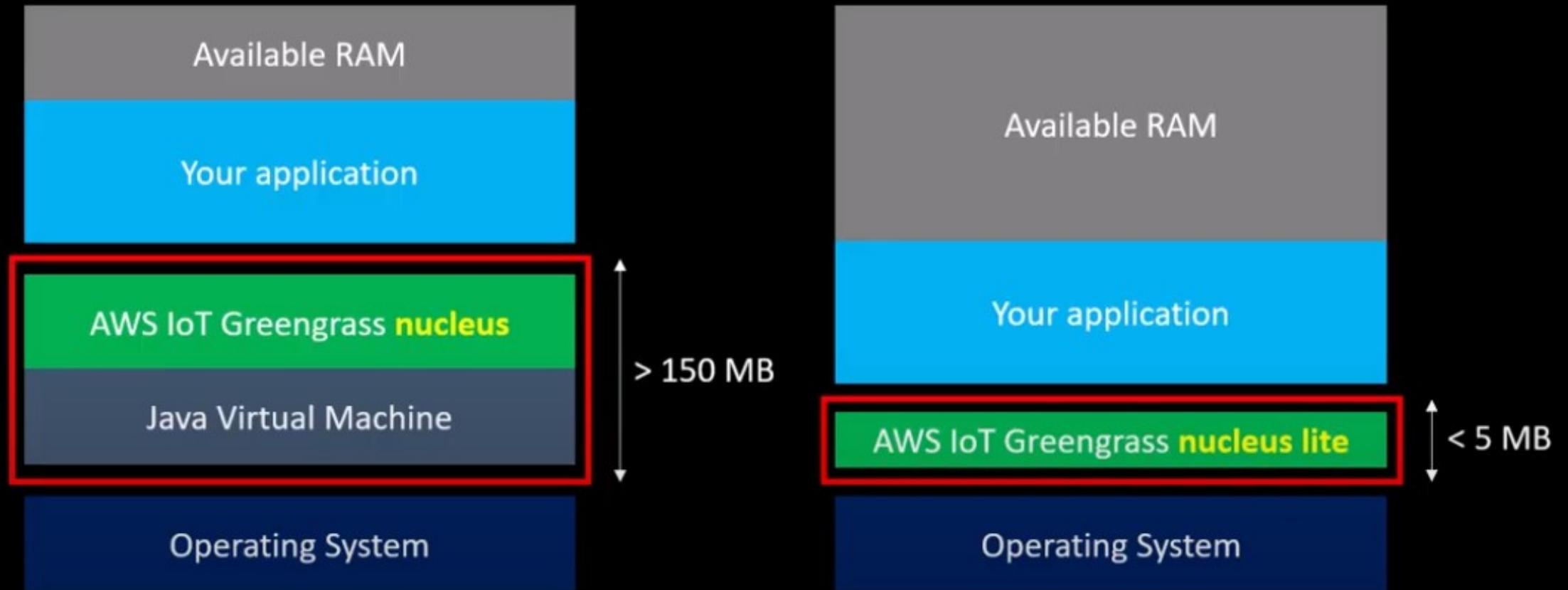
## Greengrass nucleus lite features:

- Lower memory footprint: <5MB RAM, <3MB Storage
- Fit into cost sensitive and constrained embedded devices
- More space for your applications
- Removed dependency on Java (JVM)
- Depend exclusively on libc, sqlite
- Higher performance on lower spec HW
- Increased robustness with static memory allocation
- API compatibility with Greengrass service v2 API
- Generic components compatibility with Greengrass Nucleus

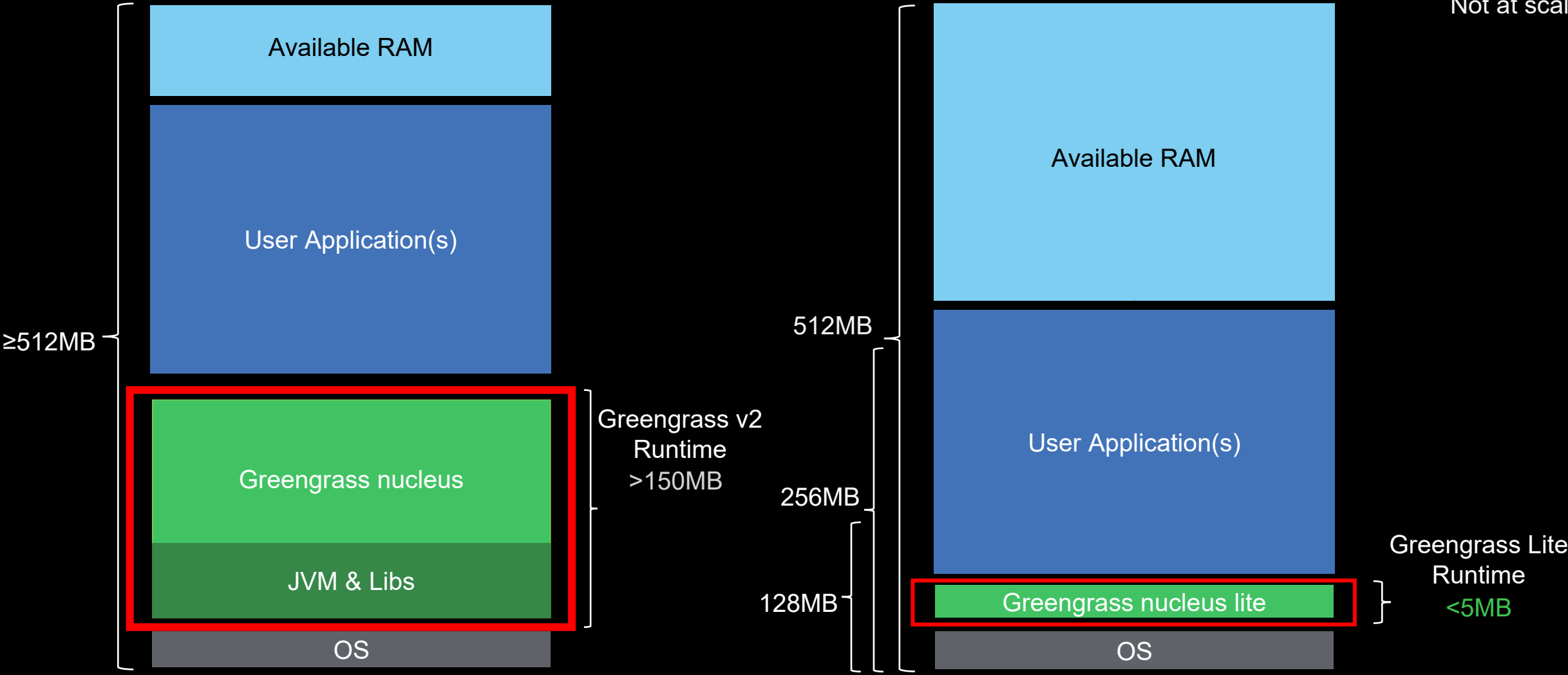


# / Advantages of Greengrass nucleus lite

## Memory footprint



# Memory Comparison



AWS IoT Greengrass nucleus

AWS IoT Greengrass nucleus lite

# / What does nucleus lite share with nucleus?

Cloud service:  
Deployments and  
device  
management

Interprocess  
communication  
(IPC)

Core device role &  
token exchange  
service

Component  
recipes

AWS IoT Core  
connectivity

# / AWS IoT Greengrass nucleus vs. nucleus lite

	nucleus	nucleus lite
RAM	96 MB	5 MB
Flash/disk	256 MB	5 MB
nucleus language	Java	C
Operating systems	Windows and Linux	Linux with systemd
Directory structure	Monolithic	Modular
Memory allocation	Dynamic	Static
Logging system	Custom	systemd journal
Configuration store	TLOG	SQLite
Lambda functions	Yes	No
Feature set	Full	Subset*

# Greengrass nucleus vs. nucleus lite

	nucleus	nucleus lite
RAM	96 MB	5 MB
Flash/disk	256 MB	5 MB
nucleus language	Java	C
Operating systems	Windows and Linux	Linux with systemd
Directory structure	Monolithic	Modular
Memory allocation	Dynamic	Static
Logging system	Custom	systemd journal
Configuration store	TLOG	SQLite
Lambda functions	Yes	No
Feature set	Full	Subset*

## \*Shared nucleus and nucleus lite functions

- Cloud service: Deployments and device management
- Interprocess communication (IPC)
- Core device role & token exchange service
- Component recipes
- AWS IoT Core connectivity

# / Greengrass nucleus vs. nucleus lite

## Indications for nucleus:

Windows operating system

Lambda function components

Docker container components

Scripted / interpreted languages

Feature not yet supported by nucleus lite

## Indications for nucleus lite:

Constrained hardware with less than 512 MB RAM

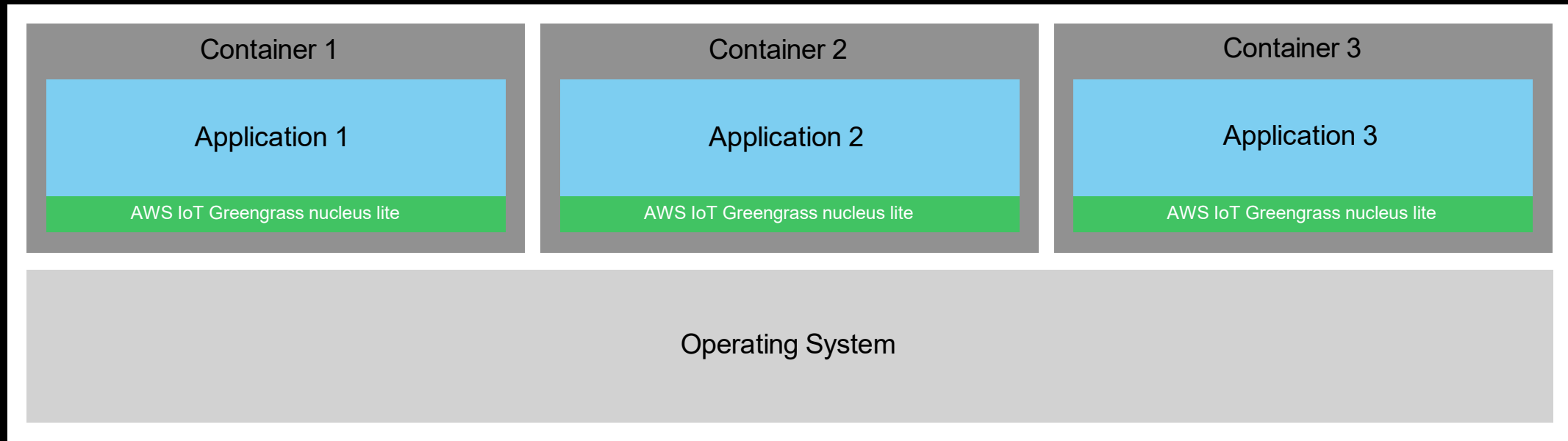
Constrained hardware with CPU clock under 1 GHz

Compliance requirements

Creating your own embedded Linux distribution with A/B partitions for OS image updates

Compiled languages

# / Multi-tenancy Support for Containerized Applications



With its small footprint, nucleus lite provides the opportunity for effective containerization in multi-tenant IoT deployments.

Developers can run multiple isolated applications, each bundled with their own AWS IoT Greengrass runtime and connected to a distinct account/endpoint.

**Use cases include: Smart Home Equipment, Smart Metering**

# /IOTCONNECT<sup>®</sup> Supports All Devices



AWS IoT Core



AWS IoT Core for  
LoRaWAN amazon sidewalk



AWS IoT Greengrass  
+ Greengrass lite

Device  
Types



Connected  
Devices



Gateway &  
Child Devices



Private  
LoRaWAN  
Base Station



Private  
LoRaWAN  
Concentrator



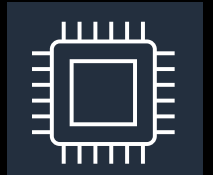
Public  
LoRaWAN  
Device



Amazon  
Sidewalk  
Device

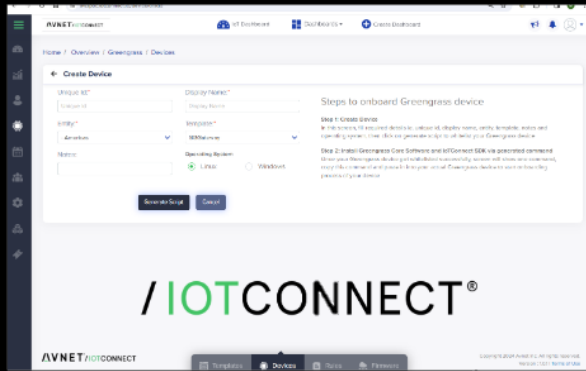


Edge Server  
or Gateway



Memory Constrained  
Edge Device

Device  
Enablement

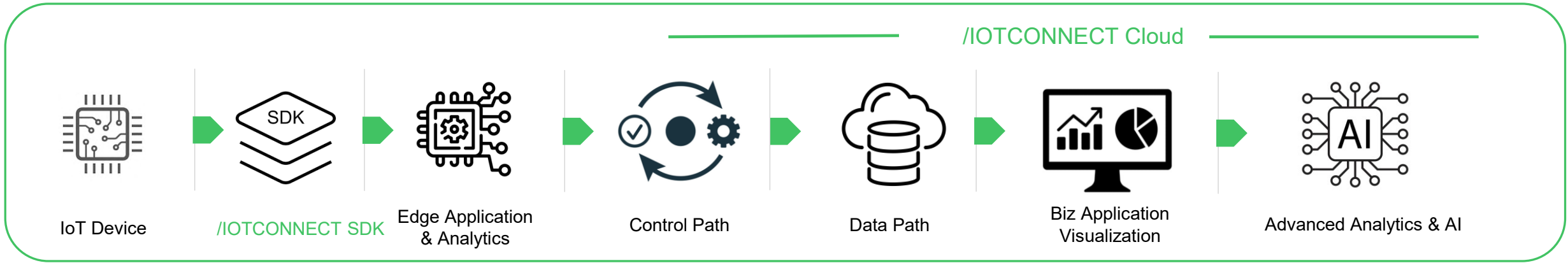


AWS IoT  
Greengrass



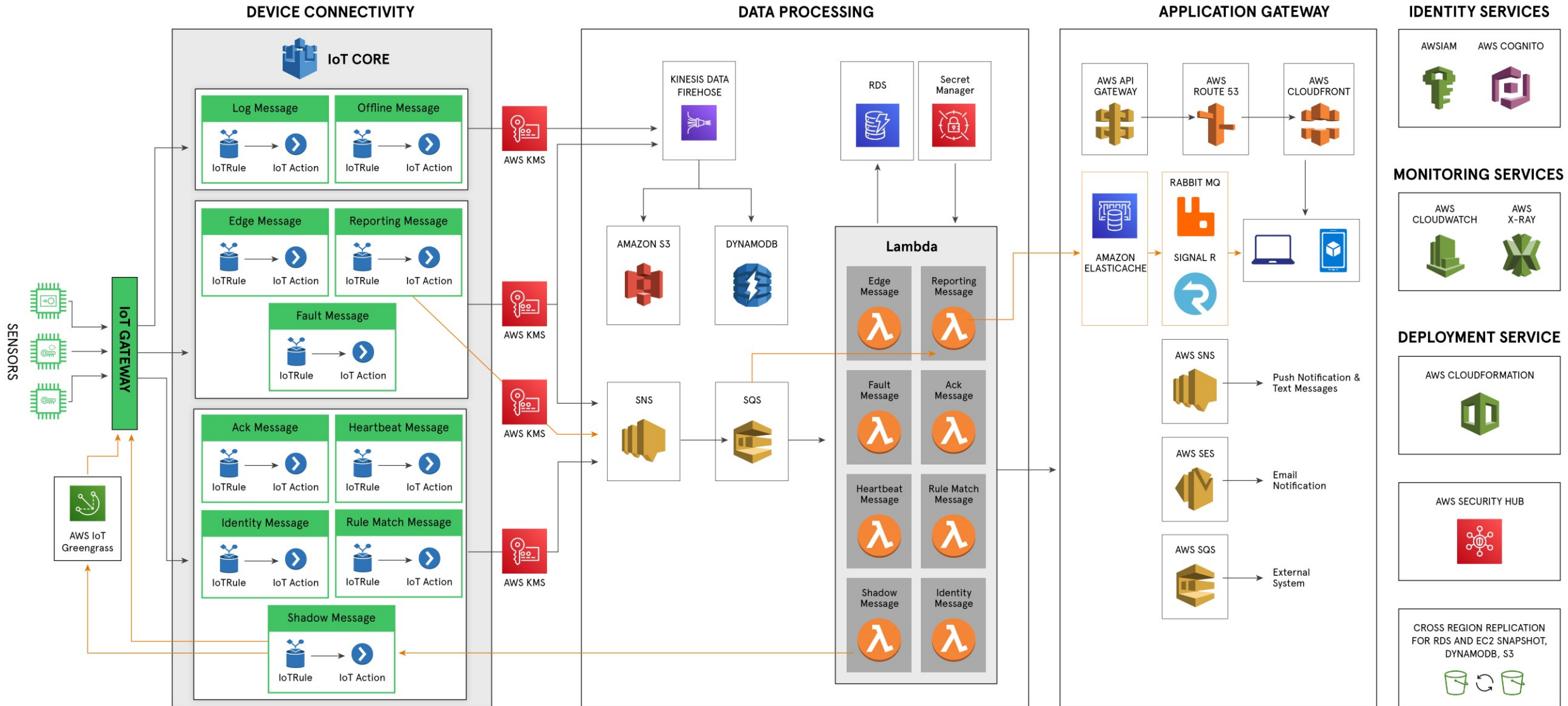
/IOTCONNECT<sup>®</sup> enables ALL devices types through a single pane of glass.

# /IOTCONNECT Building Blocks w/ AWS



FreeRTOS	Python	Greengrass	IoT Core	RDS	QuickSight	SageMaker
C			EventBridge	S3 Data Lake	Grafana	
<p><b>Transport</b></p> <div style="border: 1px solid green; padding: 5px; display: inline-block;"> <b>LoRaWAN™</b> PRIVATE   PUBLIC         </div>			Kinesis	S3		
			Lambda	DynamoDB		

# /IOTCONNECT Platform Architecture

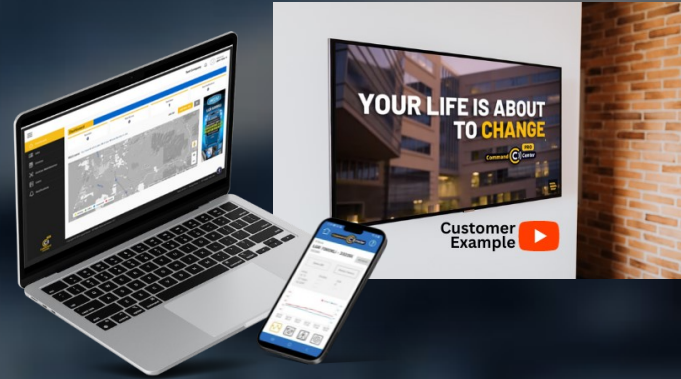


# //IOTCONNECT Developer Personas



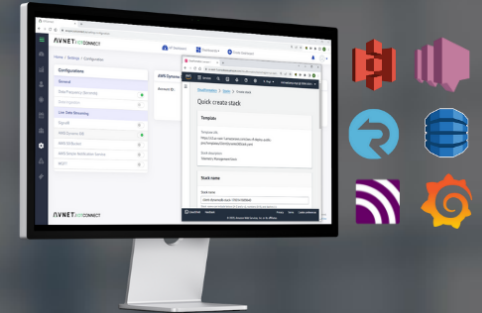
- Device, User, Roles, and Entity Admin
- Security manag
- Basic dashboarding
- Internal Ops

**Device Builders & Deployment Managers**



- RESTful API
- Predictable URLs
- Intelligent error handling
- OAuth 2.0 authentication
- Access to all IoTC functions

**Application & UX Developers**



- Dynamo DB, S3
- Signal R
- MQTT
- Grafana
- AWS SNS

**Cloud Developer & Data Science**

# /IOTCONNECT SDKs: Deliver a Positive Developer Experience



## Objectives:

- Deliver device-builders a positive developer-experience
- Integrate into the Avnet Supplier's development flow and ecosystem
- Provide confidence for a successful outcome at the onset of our customer's IoT journey



## Software Resources

- /IOTCONNECT Enablement, Witekio, and Softweb service teams
- Access to global and scalable Avnet software services
- Skills: C, Python, Java, OS/RTOS, Applications, AI/ML



## Deliverables

- /IOTCONNECT Library
- SDK (C / C# / Python / ...)
- Test Strategy
- Platform Targeted Samples
- Developer Guide
- QuickStart Experience

# / Device Enablement: SDKs

## Generic SDKs

Multiple Languages and Environments



## Platform-specific SDKs

Development Boards and Embedded Hardware



 <https://docs.iotconnect.io/iotconnect/sdk/>

 <https://github.com/avnet-iotconnect/>



# /IOTCONNECT AWS Demo Examples



1 - Audio Detection - 1 Device

### Urban Sound Event Classifier

ML Acceleration Engine for Low-Power MCUs

Sensor Location: Select Device to Track

Sound Generator (mciBMAX)

Audio Channel: 2024-01-04 17:38:44

CPU Usage: 2024-01-04 17:38:44

SENSOR 1 STATUS (S-1): NO ACTIVITY

S-1 CONFIDENCE: 100

Date	Resource	Event Name	Condition	Severity
Jan 03, 2024 23:07:30	ml-ai-0000-01	Rule Matched	class == "Signal"	

AI/ML Audio Classification

### MCI-RASYN

RENESAS EDGE IMPULSE SYNTIANT

Commands: UP, DOWN, BACK, NEXT, OK SYNTIANT

MESSAGE COUNT: 0 (2024-01-12 01:23:15)

Attribute	Time	Value
inferencelabel	2024-01-12 01:23:15	
msgCount	2024-01-12 01:23:15	
inferencelabel	2024-01-12 01:23:15	

Command Usage (20-min): 61.7%

Edge ML Voice and Motion Detection

### NINJA Shark Ninja Grill Demo

Grill State: ON

Grill Temp (F): 425

Temp Indicator: [Red Circle]

Even Cooking Surface: [Thumbs Up]

#### DEMO OVERVIEW

Temperature: [Bar Chart]

Grill Movement and Position: [Line Graph]

Device Command (SINAMMCL01)

Command	Executed On (UTC)	Status	Executed Count
setTemp 600	Jan 12, 2024 07:36:36	Success	2
grill_unlock on	Jan 12, 2024 07:36:27	Success	1
grill_unlock on	Jan 12, 2024 02:02:00	Success	1
grill_unlock on	Jan 12, 2024 01:16:19	Success	2
grill_unlock on	Jan 12, 2024 01:16:19	Success	1

Consumer Indoor Grill