

/ Avnet /IOTCONNECT Solutions Suite

Smart Asset Monitoring

AVNET®

/IOTCONNECT®
Manage | Secure | Deploy



/ Solution Accelerator & Marketplace Index

/IOTCONNECT enabled solutions

Smart Generator Monitoring

Smart City Noise Detection

Smart Asset Monitoring

Smart Facility Solutions

Smart Factory Solutions

Smart Fleet Management

Smart Warehouse Monitoring

SaaS offering

/IOTCONNECT®

Avnet's Smart Asset Monitoring powered by IoT and AI

Avnet's Smart Asset Monitoring solution, built on /IOTCONNECT and Amazon AWS technology, optimizes the use of aging assets while reducing lifecycle costs. It also enables monitoring of virtual assets, such as data from various business systems. With built-in predictive analytics, the solution enhances efficiency and reduces costs by monitoring machine performance, predicting asset failure, and leveraging analytics and business intelligence for deeper insights, all while seamlessly connecting assets with business systems.

Visit Our Marketplace Listings

AVNET

avnet (8 results) showing 1 - 8

Sort By: Relevance

AVNET

IoTConnect

By Avnet

Free Trial

Vendor Insights

Avnet's IoTConnect is a comprehensive solution accelerator software that facilitates IoT device connectivity, real-time monitoring, and advanced analytics. It offers seamless device integration, robust security, and easy and clear methods to gain valuable insights for businesses to optimize...

AVNET

Avnet's Smart City Noise Detection Solution: Harnessing IoT and AI

By Avnet

Avnet's pre-defined and configurable smart city solution focuses on the system integrators' biggest challenges: complexity, security, and scalability. As a global technology distribution and solutions, Avnet brings decades of experience and capabilities to enable digital...

softweb solutions

Data and Analytics Consulting Services: Data 360 workshop

By Softweb Solutions AN AVNET COMPANY

Data in 0's and 1's do not serve any purpose. Data is useful when it can unlock the potential of your business. One of the biggest challenges business users face is the volume of data they have to deal with. With so much data available, it can be difficult to know where to start....

softweb solutions

IoT 360° Program: Transform Your Business with Advanced IoT Intelligence

By Softweb Solutions AN AVNET COMPANY

An IoT 360° program is a comprehensive approach to leveraging the Internet of Things (IoT) for business success. It encompasses various aspects, from connectivity and device management to processing, analytics, and integration with human value. One of the benefits of an IoT 360° program is its ability to...

softweb solutions

End-to-End AI now: From Strategy to Deployment with Softweb Solutions

By Softweb Solutions AN AVNET COMPANY

Artificial intelligence (AI) is not about replacing humans, but augmenting them. Using AI to solve complex problems and make better decisions fast. AI360° is a comprehensive and human-centered approach to adopting AI and intelligence. It aims to help you speed up your...

softweb solutions

Softwebs' Gen AI 360° Program: Go beyond the hype, unlock real AI value

By Softweb Solutions AN AVNET COMPANY

Forget the buzzwords and unlock the true potential of Generative AI (GenAI). The generation of Artificial Intelligence, with Softwebs' Gen AI 360° program. Your compass, guiding you through the exciting yet complex landscape of GenAI, so you create exponential, lasting value...

AVNET

IoTConnect

Sold by: Avnet

Free trial

Vendor Insights

Avnet's IoTConnect is comprehensive solution accelerator software that facilitates IoT device connectivity, real-time monitoring, and advanced analytics. It offers 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.

View purchase options

Try for free

View assessment data

Save to list

Overview

Pricing

Usage

Support

Reviews

Product Overview

Avnet's IoTConnect is a comprehensive solution accelerator software that facilitates IoT device connectivity, real-time monitoring, and advanced analytics. It offers 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.

Application accelerators and integrations: Through APIs, these accelerator templates focus on end applications giving a prebuilt, head-start for any solution design.

Advanced data analytics: Gain valuable insights from IoT data through real-time monitoring and customizable dashboards.

Robust security measures: Industry-standard protocols and encryption mechanisms ensure the security of data transmission and device authentication.

Deployment Manager capabilities: OEM's can deploy custom products and solutions within IoTConnect and have instant access to features like subscription management, billing and support.

Sold by

Product Video

Fulfillment Method

Avnet

See product video

Software as a Service (SaaS)

/IOTCONNECT

Platform

0:00 / 2:34

PREVIOUS

NEXT

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.

All Avnet Listings

Smart Asset Monitoring Solution

Avnet's Smart Asset Monitoring solution is a comprehensive IoT-based system designed to optimize asset management and reduce lifecycle costs for asset-intensive industries such as manufacturing, oil & gas, logistics, transportation, and equipment rental. Built on Amazon AWS cloud services and leveraging Avnet's /IOTCONNECT platform, this solution offers a powerful combination of hardware, software, and analytics to transform how businesses track, maintain, and utilize their assets.



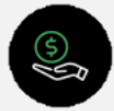
Asset health: Monitors the efficiency of your assets to perform predictive/preventive maintenance



Asset online: Indicates the number of active assets



Asset availability: Specifies the number of assets that are working properly and are available for use



Asset utilization: This KPI is to reflect how assets are utilized. It helps businesses ensure they get maximum output from their assets



Features

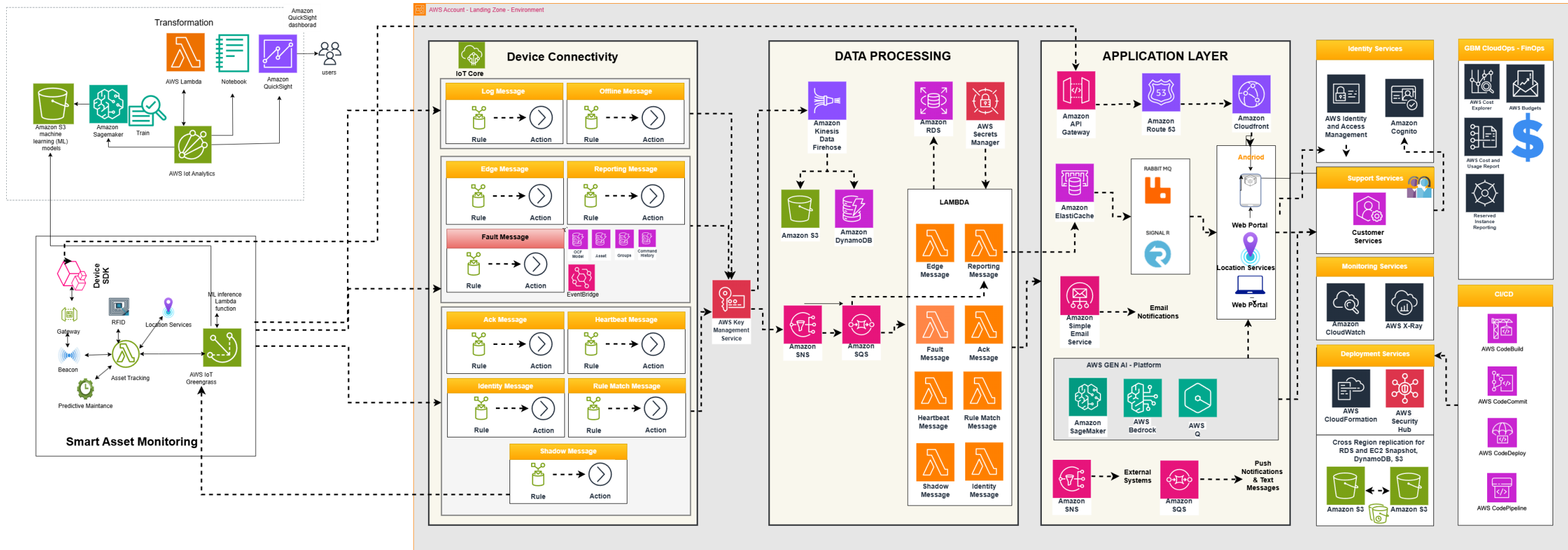
IoT-enabled smart asset monitoring is a combination of all the processes, assets, workflows, and analytics into a single solution to offer a centrally consolidated tracking, monitoring and analytics system for asset-intensive sectors like manufacturing, industrial machinery, power & utilities, mining, oil & gas, healthcare, etc.

[Learn more](#)

[Marketplace Listing](#)

AVNET

/ Solution Architecture – Smart Asset Monitoring



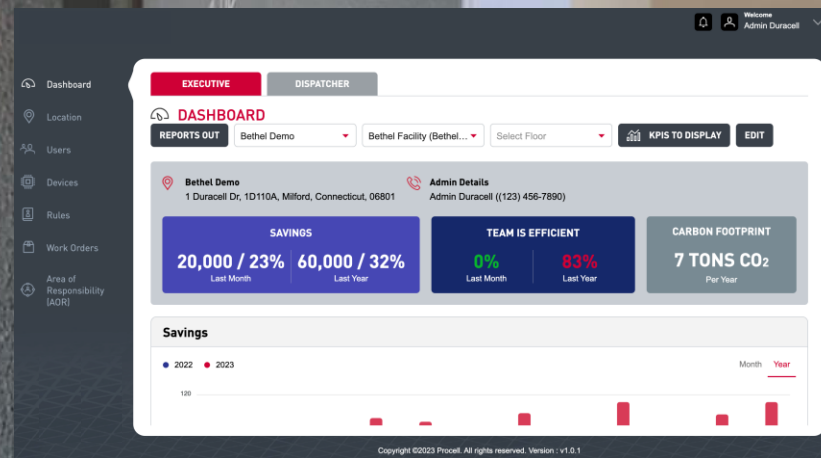
Enabling battery powered OEMs

SITUATION:

A professional battery OEM, which designs batteries and power solutions specifically for the needs of professional devices and industries. While other battery brands serve both retail and professional customers, our customer solely focuses on the professional market in order to guarantee products and services specifically designed for professional usage. As a result, Alkaline batteries are used by millions of professional end-users and leading professional OEMs around the world for its quality, reliability, performance and service.

VALUE PROPOSITION:

- Common platform with other building management devices.
- Accurate fuel gauging insights based on device specific modeling.
- Centralized dashboard for device management
- Proven reference design with Firmware example code.
- Shortest time to market with lowest risk



Strategic Opportunity to Provide OEMs Reference Designs to Integrate into Following Asset Types:

- Janitor / Sanitation (Paper Towel/Soap/Etc)
- Hospitality (Door Locks/Smoke CO2)
- Healthcare (PulseOx/BloodPressure/Therm)

→ [READ MORE](#)

DEPLOYING IOT WITH AVNET HAS ENABLED:

Data science and IoT-enabled solution that provides information remote monitoring and actionable insights for facility management

Monitor all major battery-operated device types, while maintaining high customer satisfaction

Ability to find improvement opportunities in labor and asset dollars within facilities

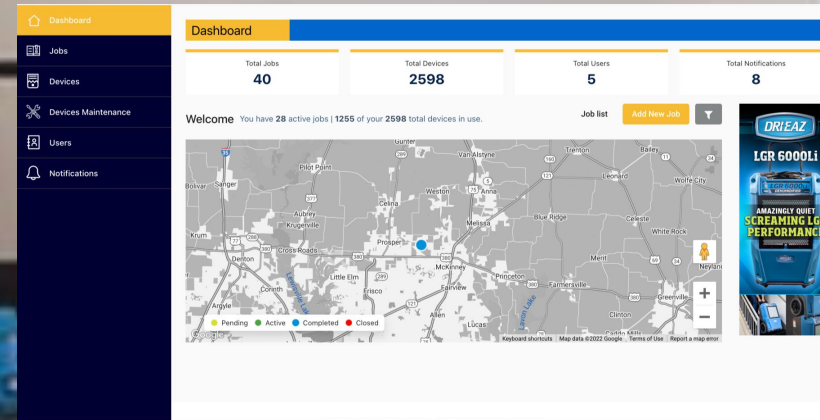
Restoration Monitoring Solution

SITUATION:

More than 50 years of providing innovative solutions for professional cleaners, restorers and facility managers. Legend Brands has been pushing the boundaries of innovation to provide cleaning and restoration professionals with cutting-edge equipment and chemicals. Our products are the go-to choice for professionals and consumers who want the best cleaning and restoration results.

RESULTS:

- Ability to report actual usage for recent insurance mandated reporting
- Improved unit up-time for service providers
- Service tech able to manage multiple sites at the same time
- Utilizing BLE + WIFI multiple units remote or local cell phone monitoring
- Automated usage tracking and reporting
- Real-time maintenance notification filter replacement or unit malfunction



COMMAND HUB:

- Digitally connected, remotely monitored equipment

→ [READ MORE](#)

DEPLOYING IOT WITH AVNET HAS ENABLED:

Instant access to critical job data onsite on the Command Hub screen or remotely using the Command Center Pro app.

Monitor job trends performance graph displays up to 30 data points since the start of the job.

Built-in Bluetooth and Wi-Fi for onsite and remote management of jobs - seamless integration with Command Center Pro app.

Achieve ULTIMATE efficiency - integrates with Next Gear's MICA Mobility app for instant, accurate job data capture.

/ Summary & Next Steps

Benefits

1. **Easy implementation:** Our smart Facility solutions are powered by a modern networking infrastructure platform that works with the current system with minimal disruption.
2. **Accelerate ROI:** Our solutions feature state-of-art technologies such as advanced analytics, deep learning and artificial intelligence that provide real-time visibility and simplify the implementation of higher ROI solutions.
3. **Comprehensive security:** We follow best practices to ensure that all data are properly secured by following the highest standards in compliance with various industry and federal regulations.

Outcomes

1. **Enhanced Operational Efficiency:** The solution reduces downtime, optimizes asset utilization, and lowers maintenance costs, leading to improved overall efficiency.
2. **Data-Driven Decision Making:** Businesses gain valuable insights for making informed decisions regarding asset investments, maintenance schedules, and resource allocation.
3. **Increased Productivity and Profitability:** By shifting from reactive to proactive asset management, companies experience increased productivity and profitability.

Next Steps

Let's Team up to Empower Your Assets

Contact us: IoT@Avnet.com

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

/ About Avnet

AVNET

Quick facts

- Founded in 1921
- Headquartered in Phoenix, Arizona
- \$26.5B in revenue (FY23)
- AVT listed on the NYSE since 1960
- AVT listed on NASDAQ since 2018
- #163 on FORTUNE 500 (US) in 2022

15,300

Employees
worldwide

1,925

Engineers around
the world

2.8M+

Engineering
community members

1M+

Customers in
140 countries

250+

Locations
globally

283B+

Units shipped
annually

Avnet Investments

AVNET

CORE SEMI

softweb
solutions

AN AVNET COMPANY

CLOUD APPLICATION DEVELOPMENT

W
Witekio

AN AVNET COMPANY

EMBEDDED SOFTWARE
DESIGN SERVICES

TRIA
AN AVNET COMPANY

EMBEDDED MODULES
& BOARDS



DESIGNED BY AVNET

SOLUTIONS DEVELOPMENT:
ADVANCED APPLICATIONS GROUP



IoT Sales Team

A global specialized IoT team focused on providing unique hardware, software and cloud expertise to OEMs



Extensive line card

Semiconductors, IP&E, embedded systems, software and cloud



Hardware Edge Design

Technology selection and support provided by 800+ Field Application Engineers



Embedded Software Design

Design, develop, and integrate embedded OS, firmware, and application software



Cloud and Digital Design

Complete IoT solutions (cloud, apps, data insights) built on /IOTCONNECT



Supply Chain and Logistics

Supply chain models to address each customer's priorities



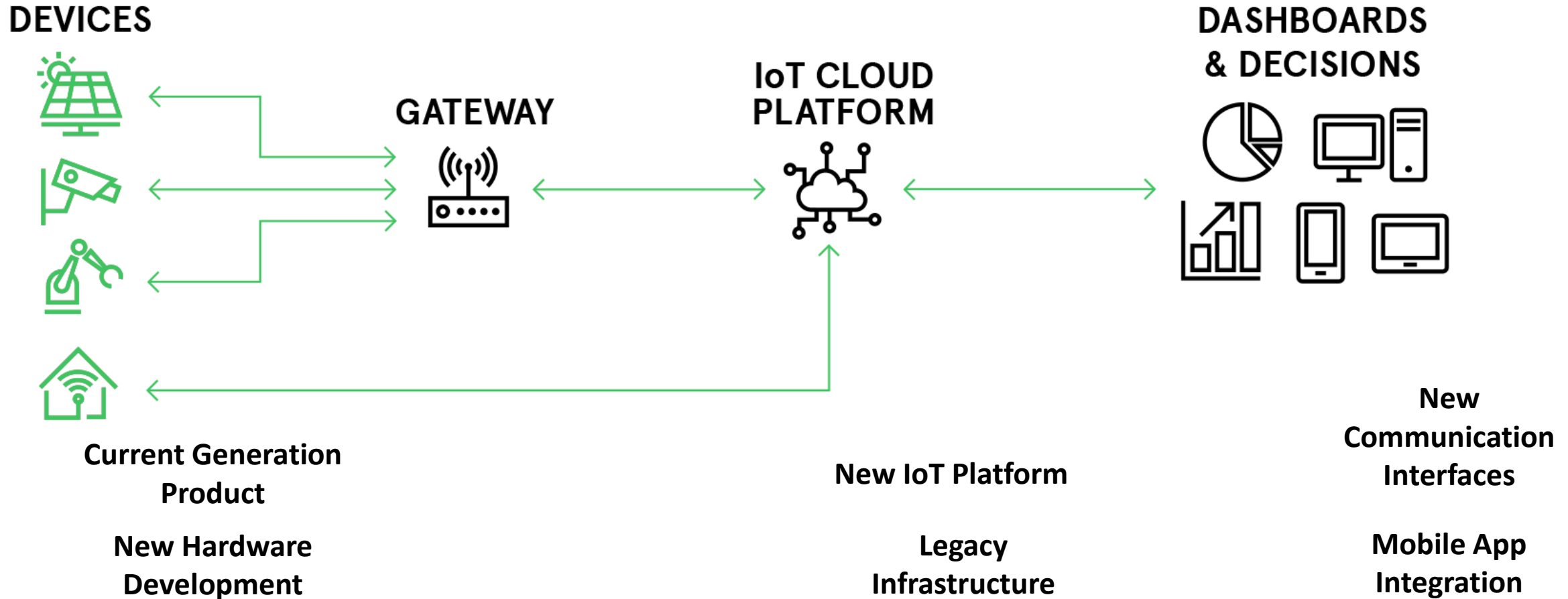
Lifecycle Management

Digital Managed Services, OTA updates, post sales support

Gives us Unmatched Capabilities

AVNET

/ 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

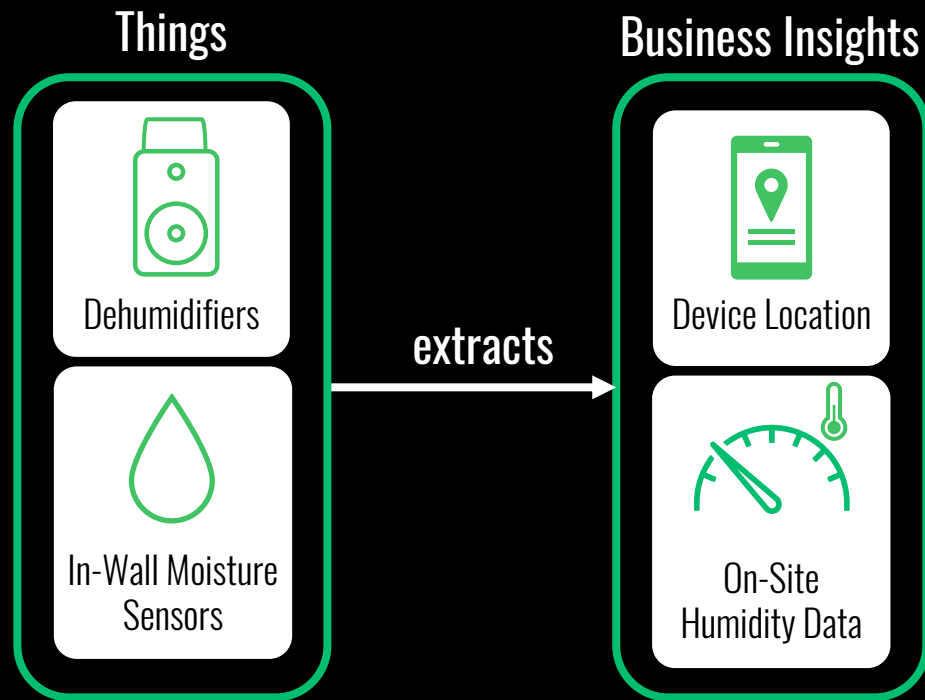


Dehumidifiers



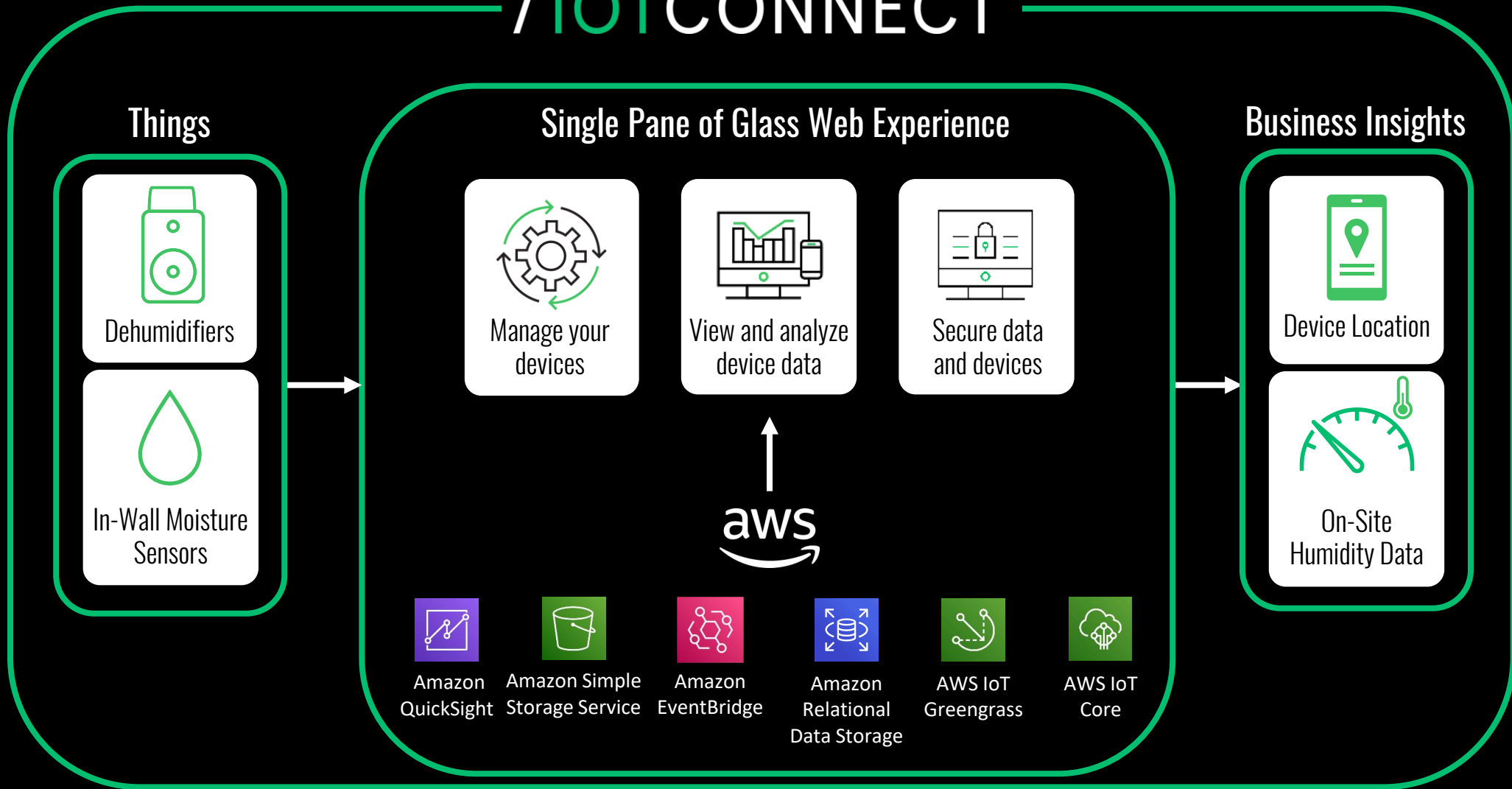
In-Wall Moisture
Sensors

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



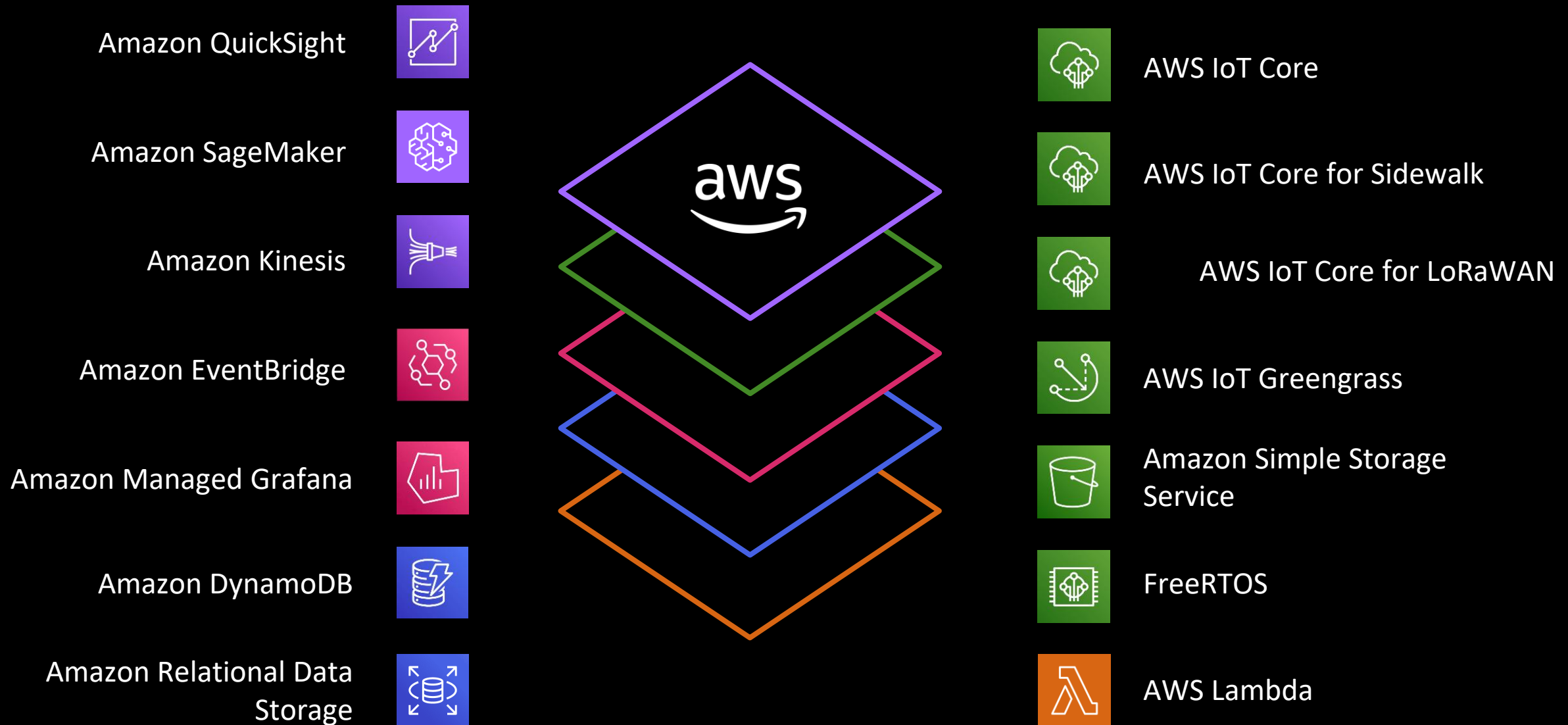
and **extracts valuable insights** to improve business intelligence

/IOTCONNECT®



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

that's **built on AWS**



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

/IOTCONNECT[®]

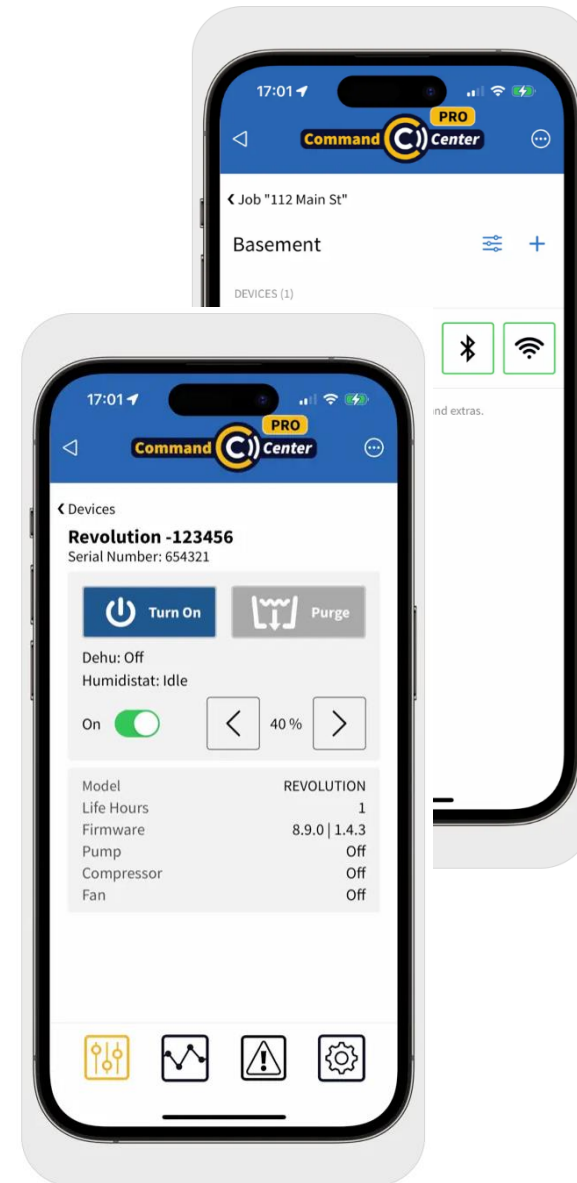
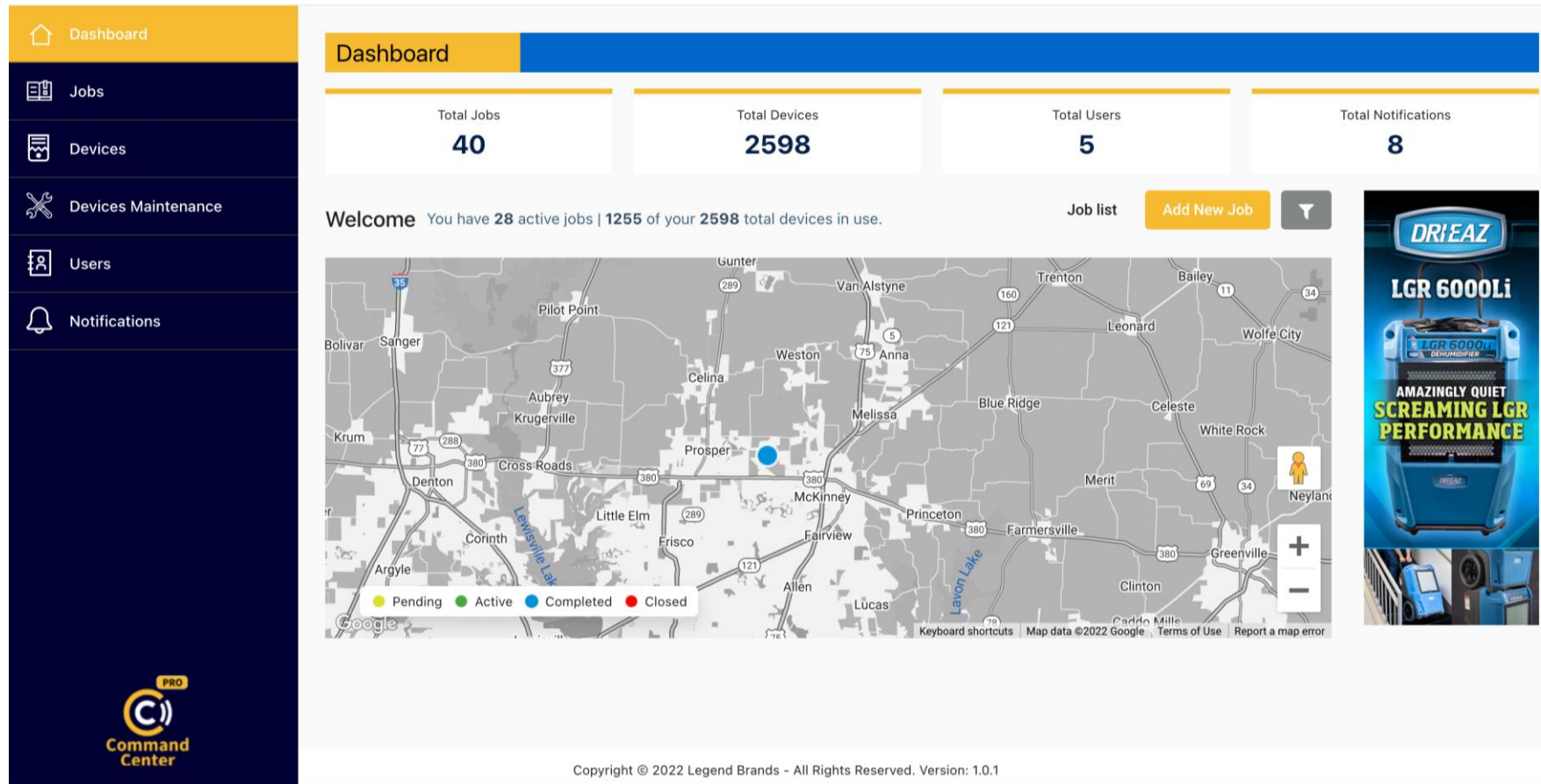
Solutions Suite



One interface for AWS
services

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

/IOTCONNECT SaaS Application in Action



Next Steps

Avnet's Smart Asset Monitoring powered by IoT and AI

Challenges

Get better control over your equipment and machinery

Avnet's Smart Asset Monitoring solution tackles challenges like limited control over assets, sudden machine breakdowns, unconnected IT and OT silos, loss of job-critical data, lack of sophisticated reporting systems, inefficient asset performance tracking, and the inability to meet maximum asset productivity. Leveraging Amazon AWS cloud services and Avnet's IoTConnect platform, this IoT-based system integrates advanced hardware, software, and analytics to transform asset tracking, maintenance, and utilization. It provides real-time visibility, proactive maintenance, and actionable insights through predictive algorithms, streamlining asset management, reducing operational costs, and enhancing productivity. For industries such as manufacturing, oil & gas, logistics, transportation, and equipment rental, this solution boosts efficiency, productivity, and customer experiences, helping companies optimize operations and track return on assets.

Avnet IoTConnect Solution

Monitor & track your assets remotely to gain rich insights into machine health & utilization

By implementing Avnet's Smart Asset Monitoring solution, businesses can transform their asset management practices, moving from reactive to proactive approaches. This leads to reduced downtime, optimized asset utilization, lower maintenance costs, and improved overall operational efficiency. The solution's data-driven insights enable companies to make more informed decisions about asset investments, maintenance schedules, and resource allocation, ultimately contributing to increased productivity and profitability.

Benefits

- Real-time Asset Tracking**

The solution uses sensors, RFID tags, and mobile apps to provide instant asset location information, improving accountability and resource allocation.
- Predictive Maintenance**

By continuously monitoring machine performance and analyzing data, the system can predict potential failures before they occur. Push notifications alert managers to issues, allowing them to take proactive measures to prevent breakdowns and minimize production losses.
- Improved Operational Efficiency**

Employees can use a mobile app to quickly check out and return equipment, streamlining processes and saving valuable time. This efficiency boost allows staff to focus on more critical tasks.
- Deep Analytics and Insights**

An interactive dashboard presents usage history, performance metrics, and other key data points. Users can generate detailed, customizable reports to gain deeper insights into asset utilization, maintenance needs, and overall operational efficiency.

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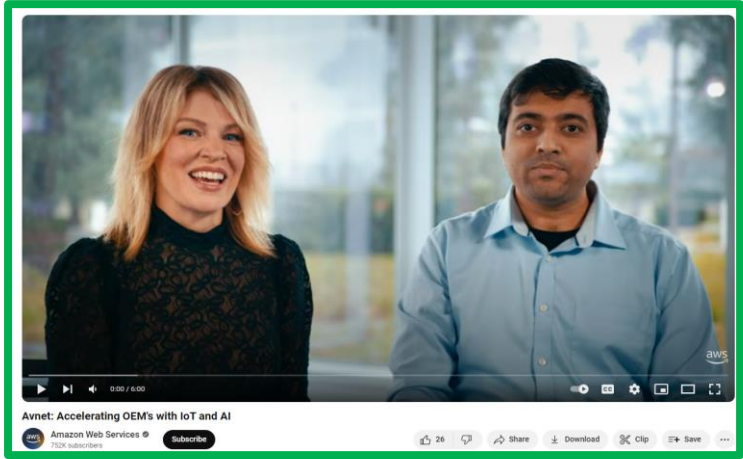
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Qualified Software

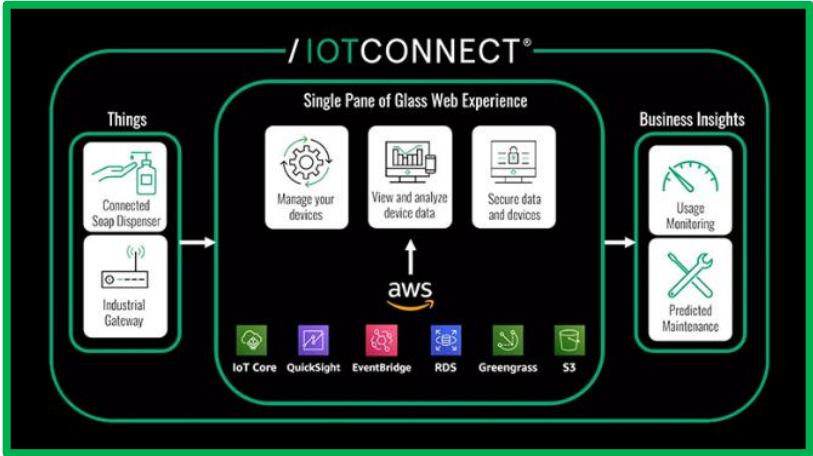
Contact us!

Learn more

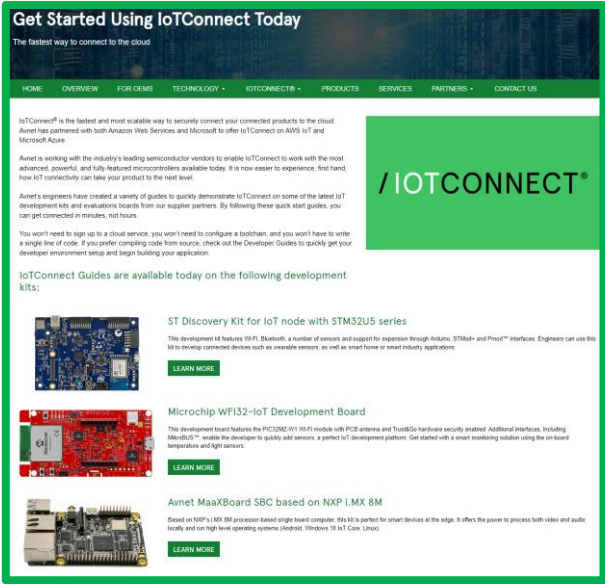
/Resources



[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:



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 Prox™ 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 WIF32-IoT Development Board

This development board features the PIC32MZ10 Wi-Fi module with PCB antennas and TrustZone hardware security enabled. Additional interfaces, including MicroBLU™, 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.

README

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.

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.

Temperature 30.979

Pressure 843.168

Humidity 14.746

Env Sensors



Device Command

Select Command Transfer Value Execute Command

Command	Executed On (UTC)	Status	Executed Count

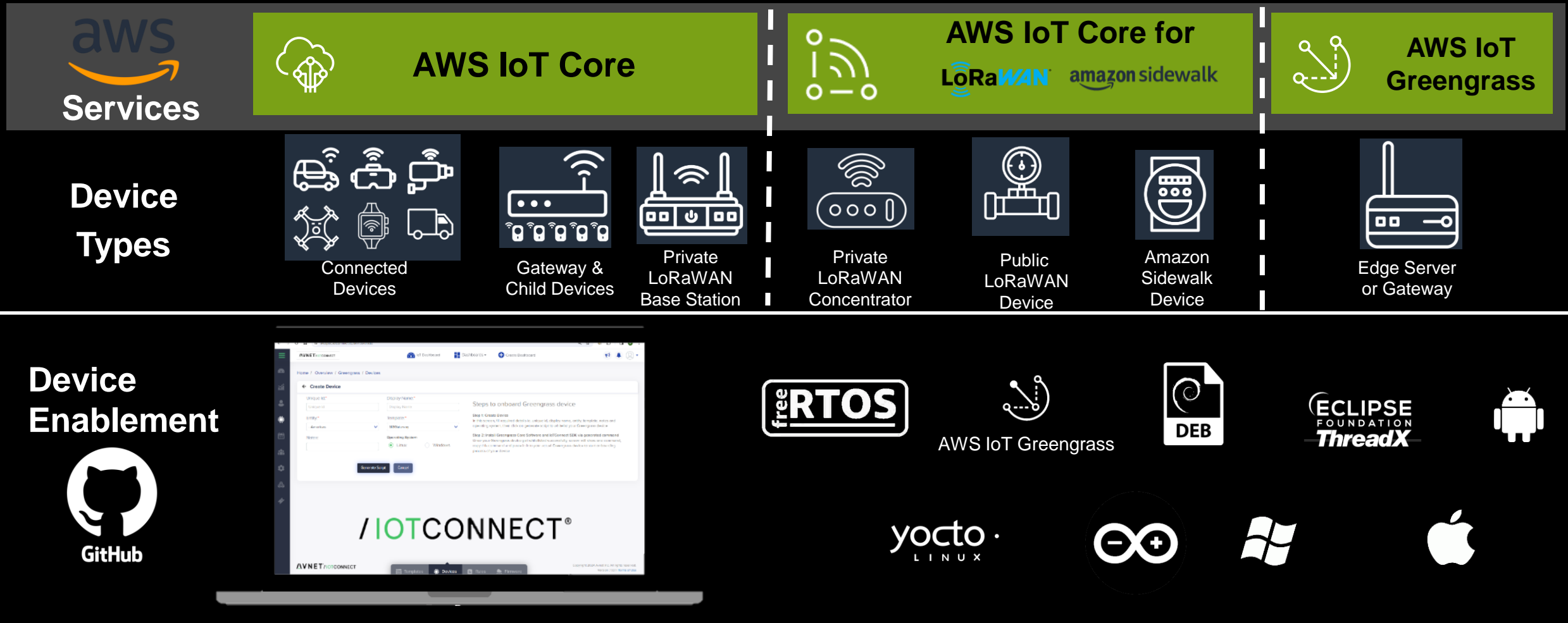
Start Developing

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

Appendix

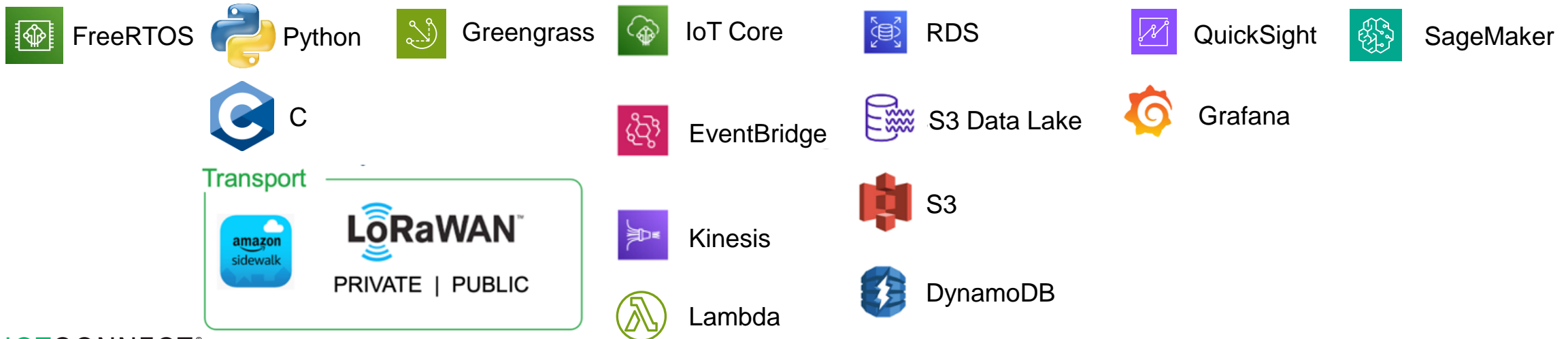
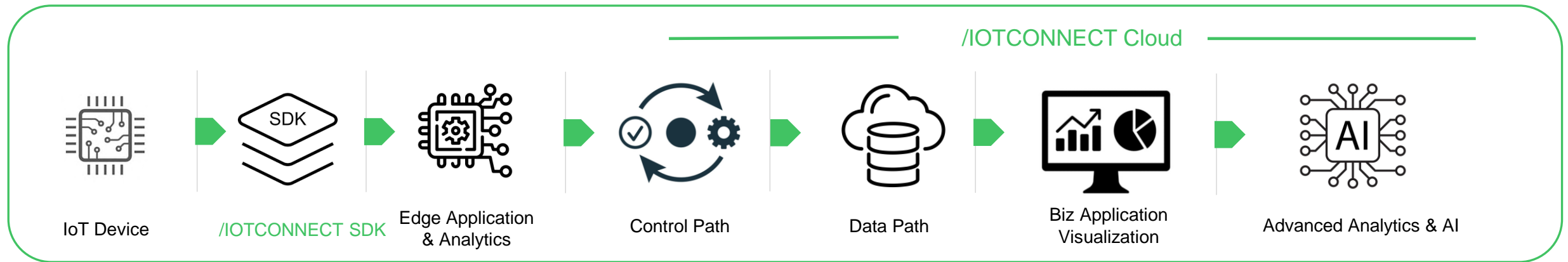
/IOTCONNECT Supports All Devices

AVNET

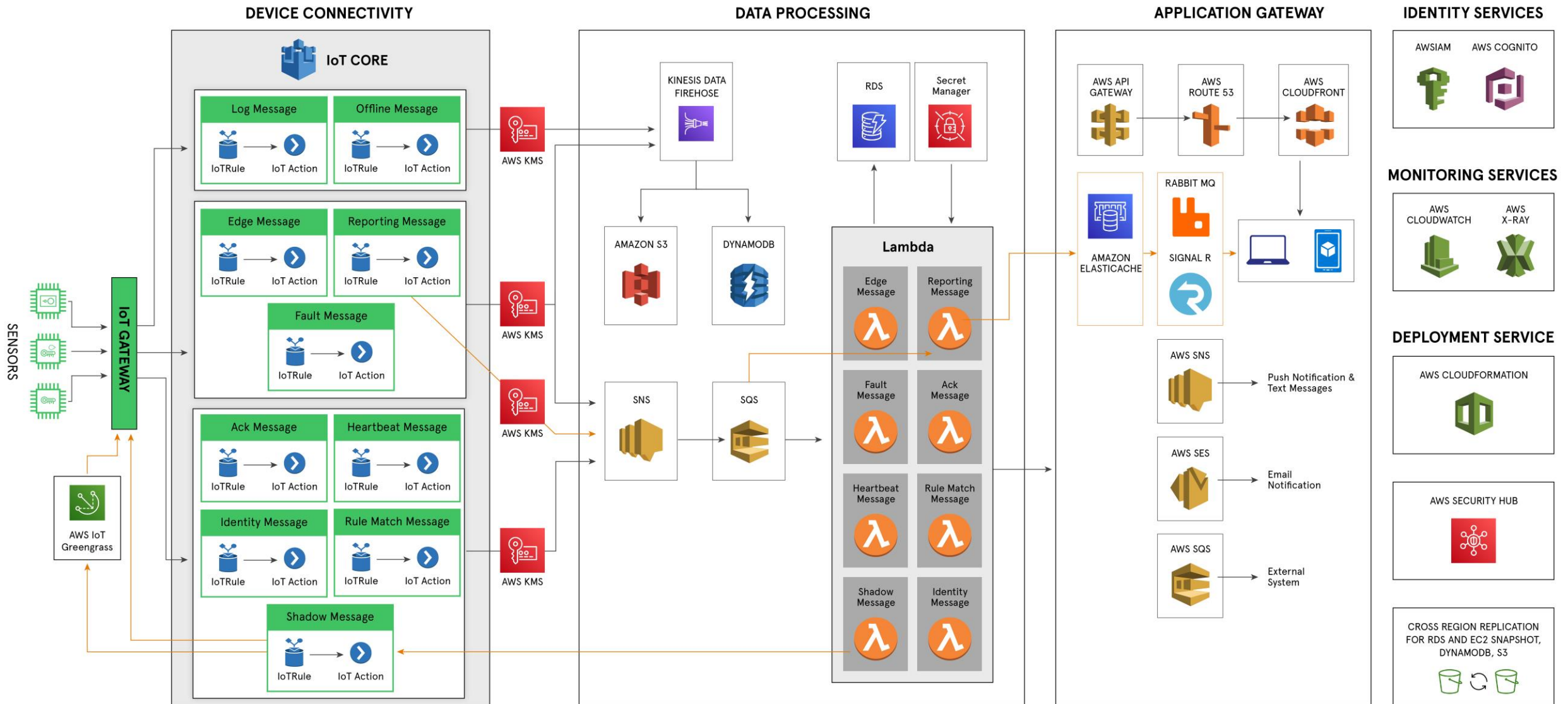


/IOTCONNECT enables ALL devices types through a single pane of glass.

/IOTCONNECT Building Blocks w/ AWS



/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 IoT functions

Application & UX Developers



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

Cloud Developer & Data Science

/IOTCONNECT SDKs: Deliver a Positive Developer Experience

AVNET



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



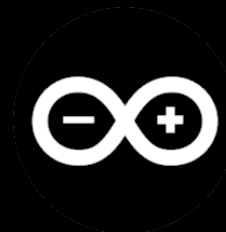
Deliverables

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

yocto
PROJECT



freeRTOS



AWS IoT Greengrass

/ Device Enablement: SDKs

Generic SDKs

Multiple Languages and Environments



Platform-specific SDKs

Development Boards and Embedded Hardware



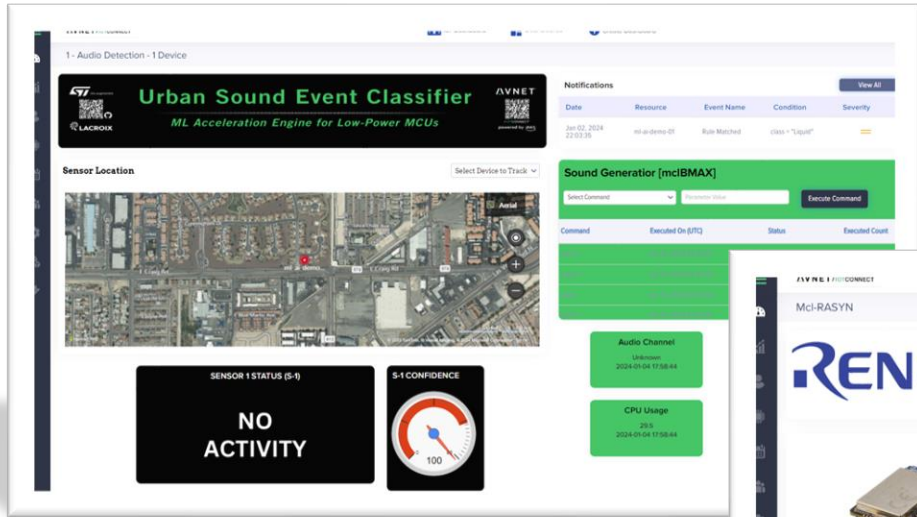
 <https://docs.iotconnect.io/iotconnect/sdk/>

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

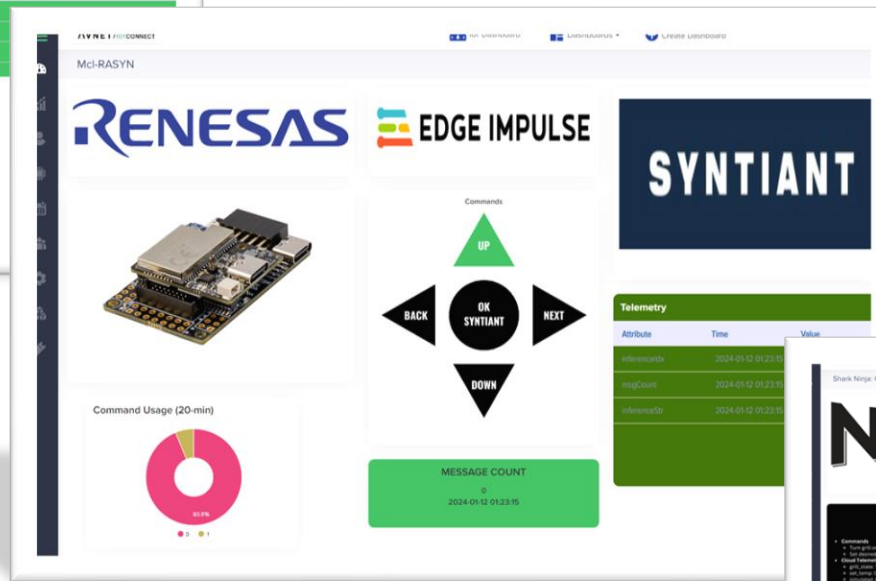


/IOTCONNECT AWS Demo Examples

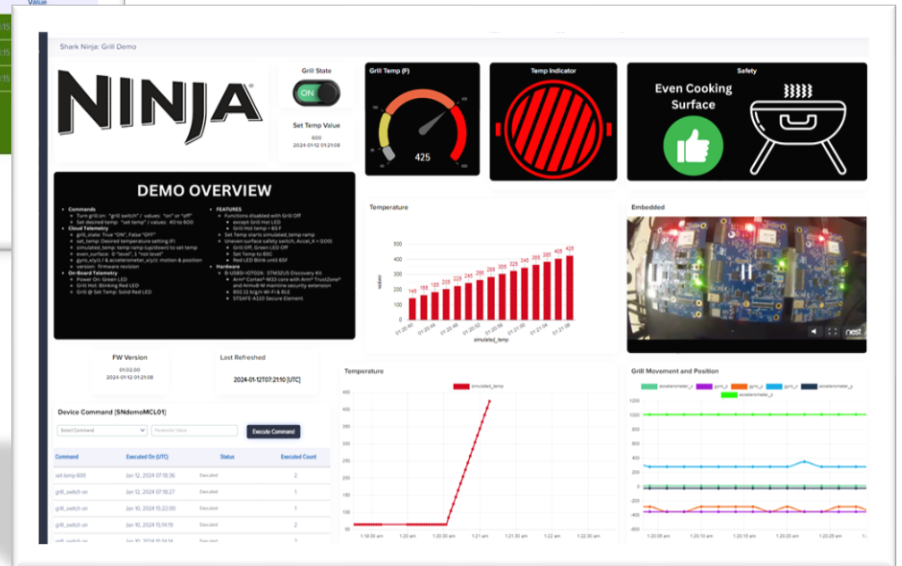
AVNET



AI/ML Audio Classification



Edge ML Voice and Motion Detection



Consumer Indoor Grill