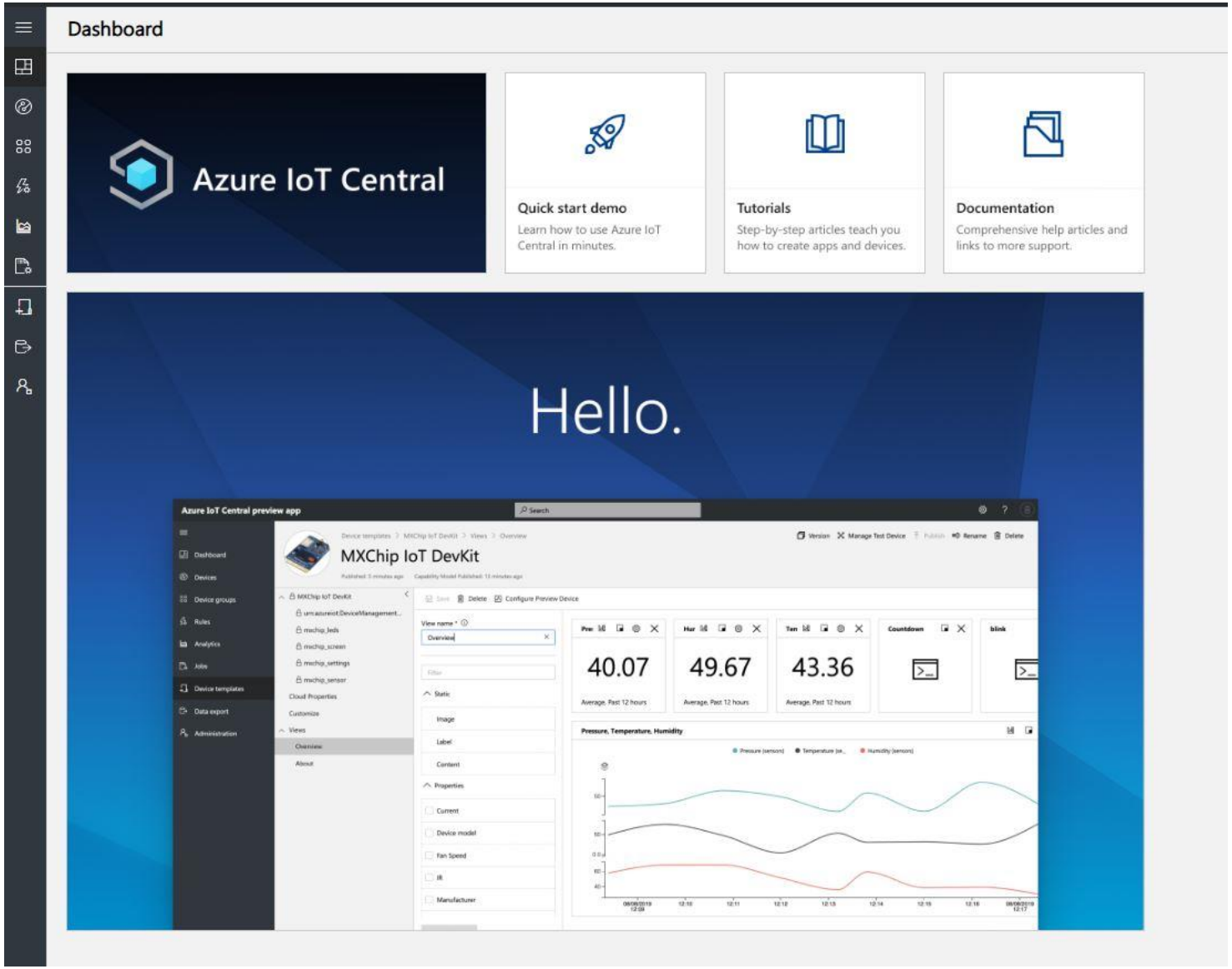
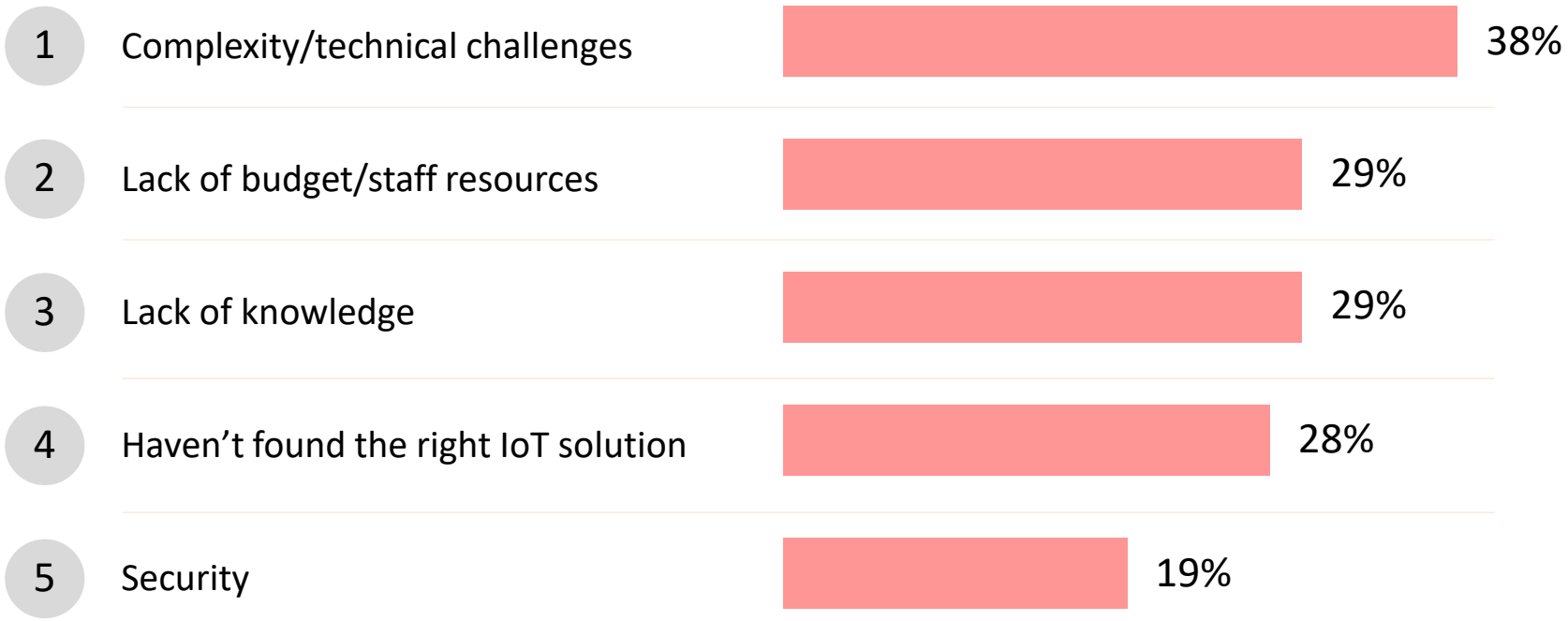
IoT Plug & Play in IoT Central

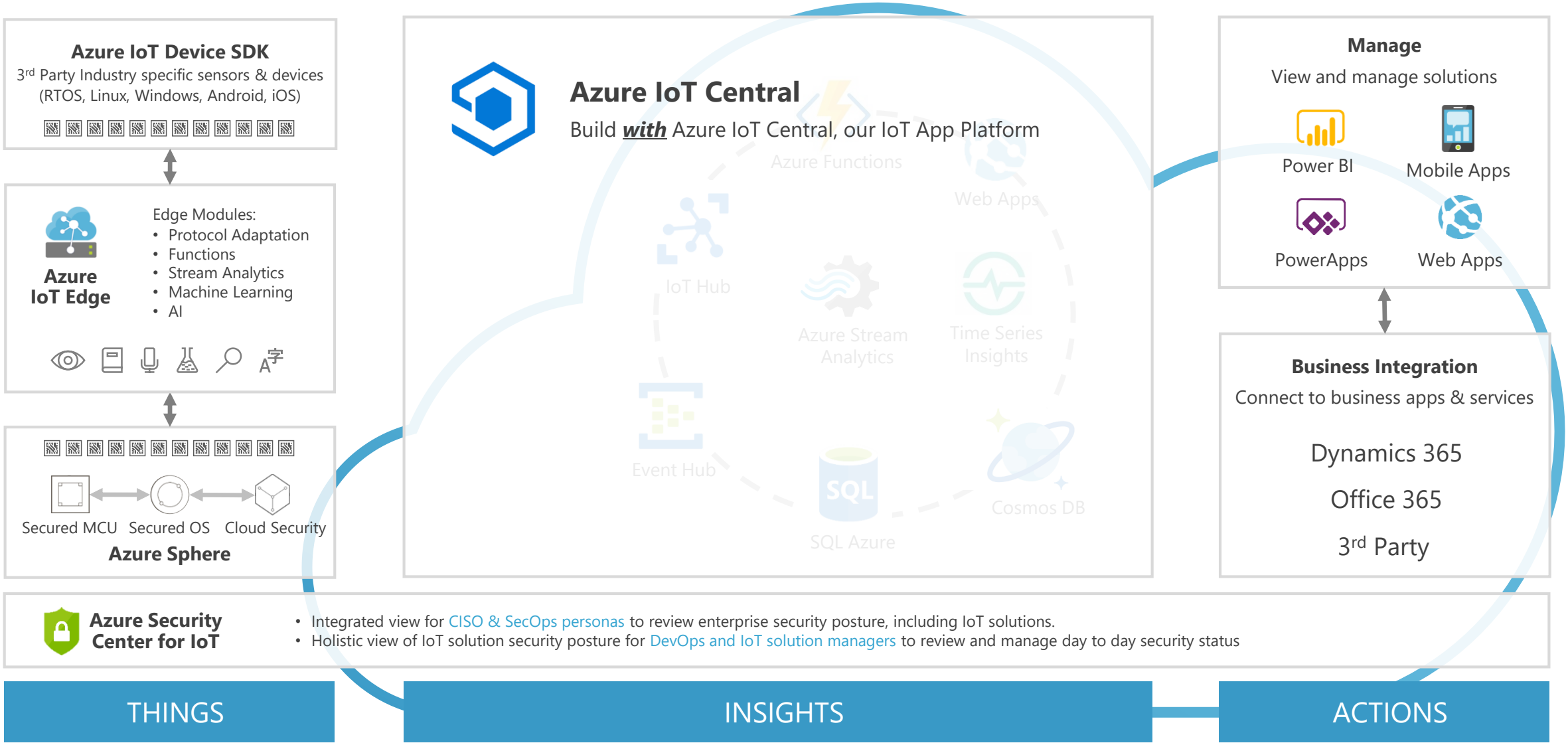


The top 5 IoT challenges

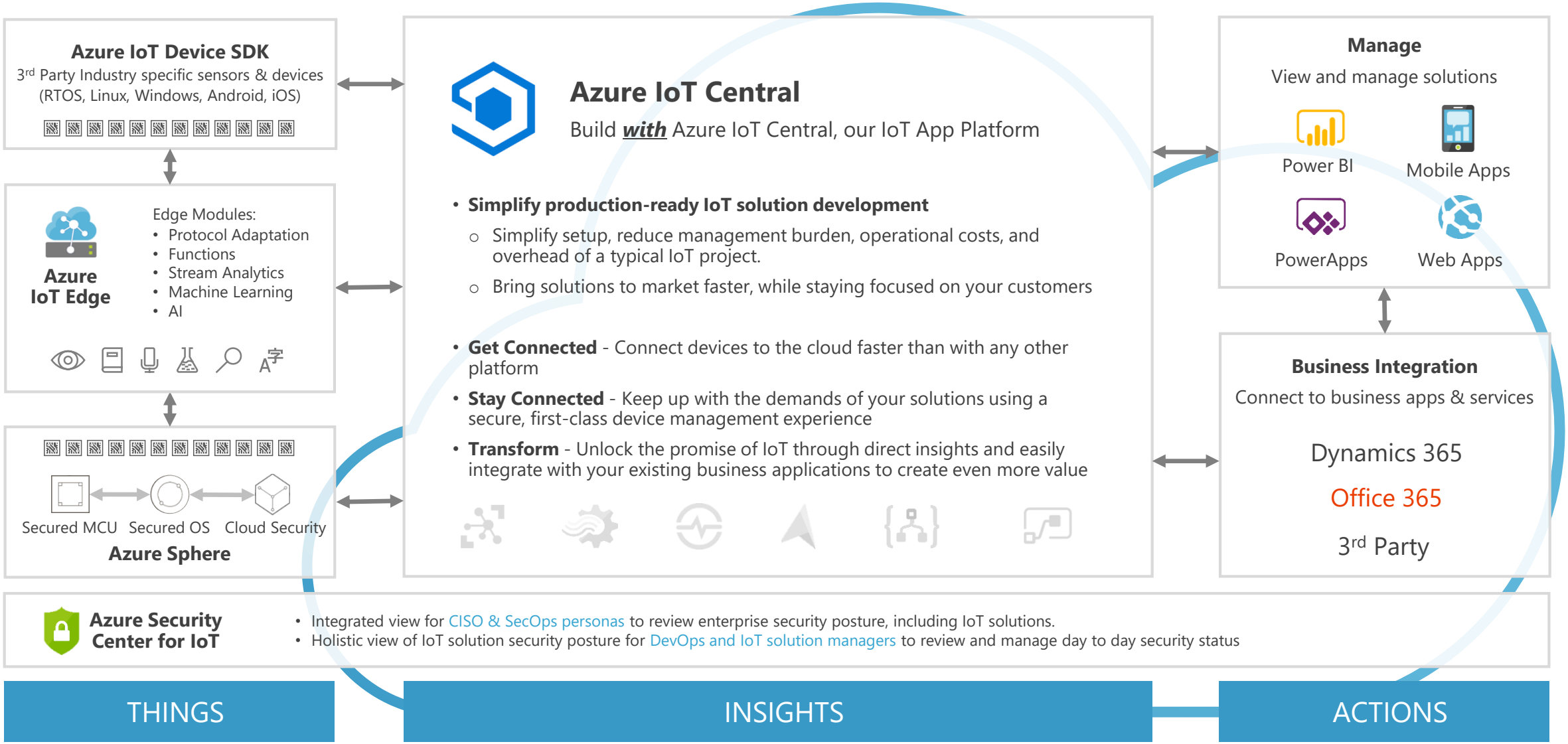


https://azure.microsoft.com/en-us/iot/signals/

Simplifying IoT



Azure IoT Central



IoT Central

NEW Preview Capabilities

App templates for Industry Verticals

White labeling your SaaS – your brand

Azure IoT Edge support

Multitenancy Support

API Support

IoT Plug and Play Support

New 2-tiered pricing model announced, based on message volume

App templates are tools to help partners & solution builders kickstart IoT solution development

Use or sell to customers directly or through AppSource

Your brand, your SaaS

App templates consist of:

- Sample operator dashboards
- Sample device templates
- Simulated devices
- Pre-configured rules and jobs
- Rich documentation including tutorials
- Brand templates using white labeling features

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Retail

- Digital distribution center
- In-store analytics
- Checkout, Condition monitoring
- Connected logistics
- Smart inventory management

Healthcare

- Continuous patient monitoring

Energy

- Smart meter analytics
- Solar power monitoring

Government

- Water quality monitoring
- Water consumption monitoring
- Connected waste management

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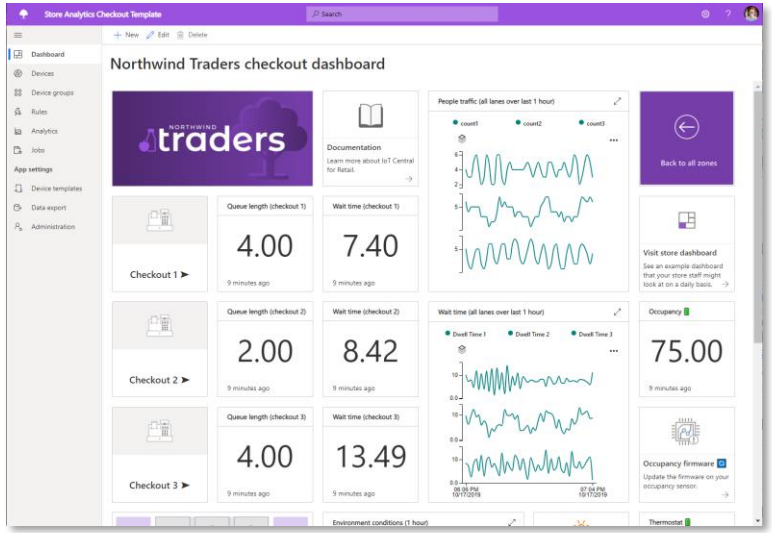

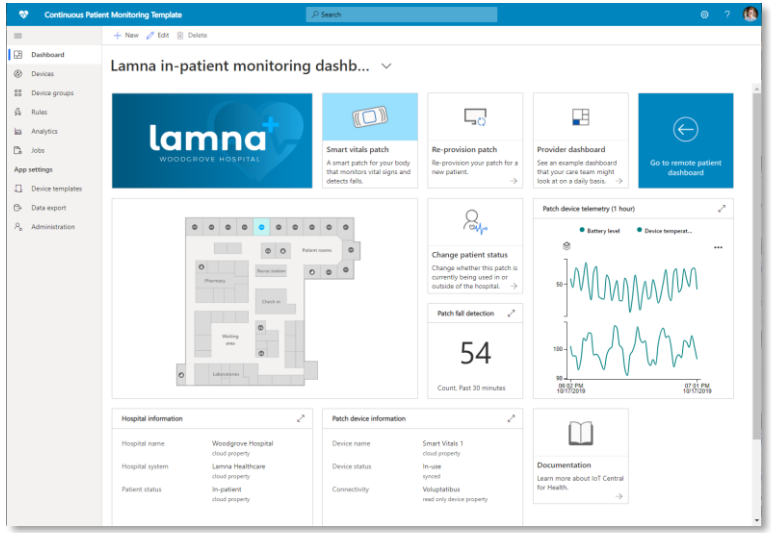

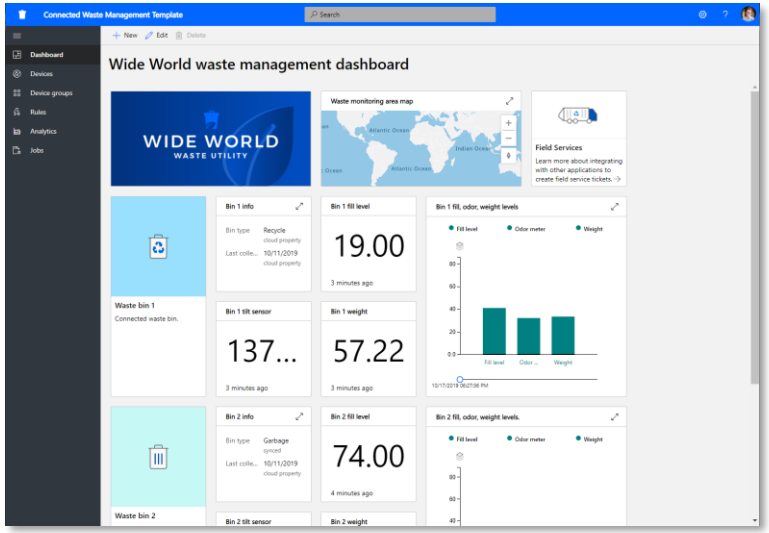

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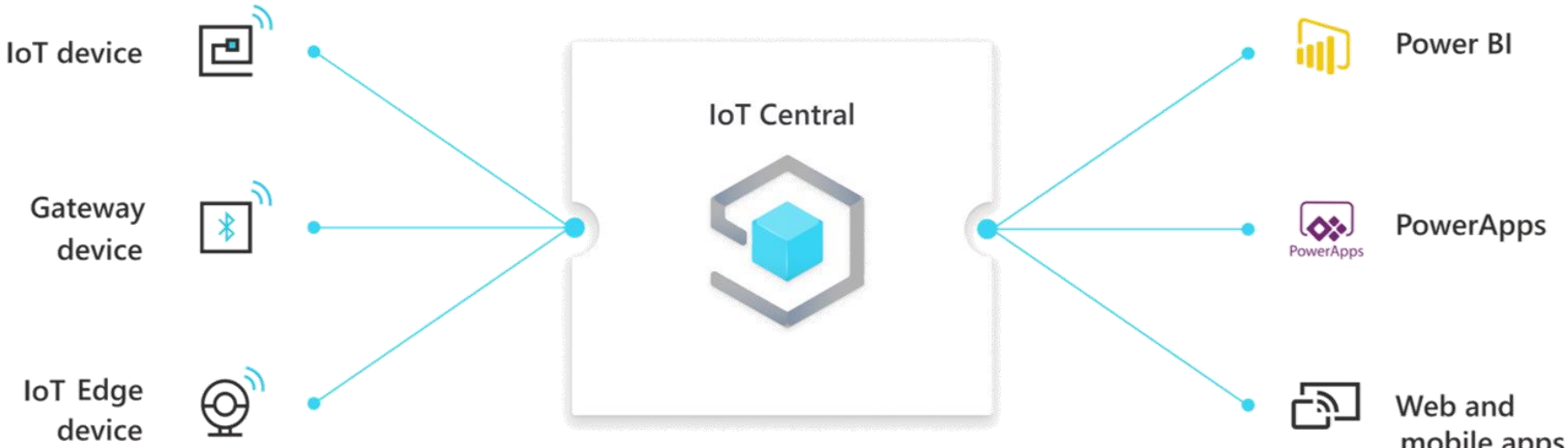

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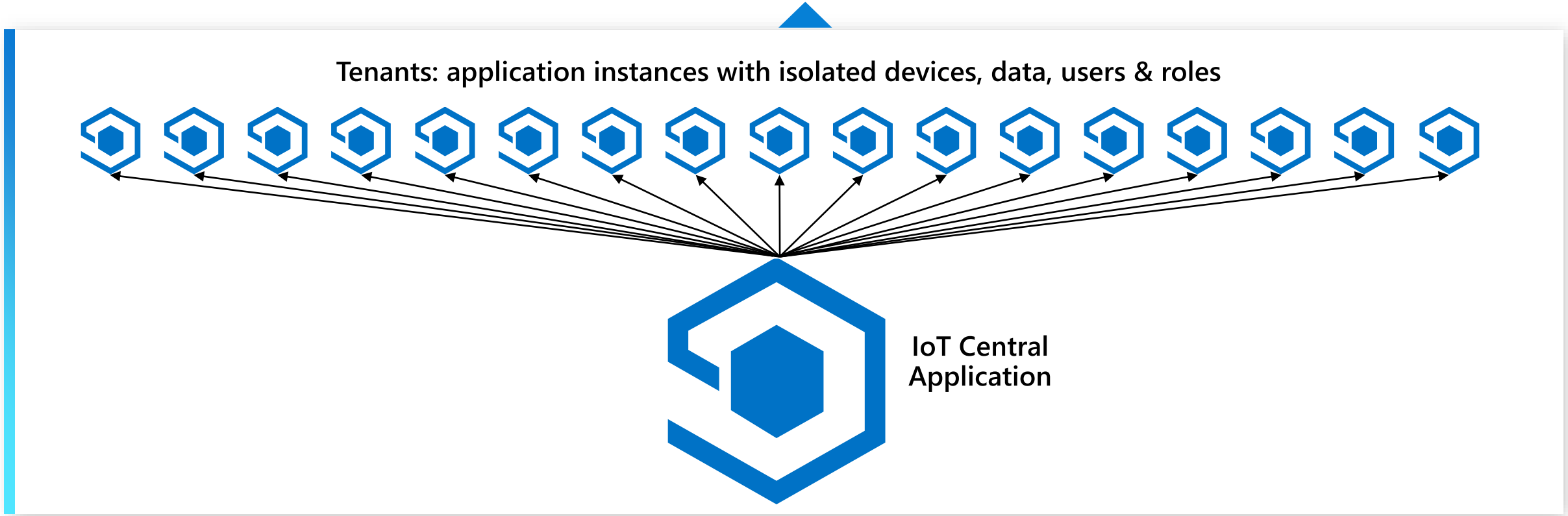

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Power BI

PowerApps

Web and Mobile

App Management APIs	Device Modelling APIs	Device Onboarding APIs	Device Management APIs	Data & Insights APIs

IoT Central Application

IoT Central

NEW Pricing in January

App templates for Industry Verticals

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New 2-tiered pricing model announced, based on message volume

2 devices	5,000 messages /month /device	30,000 messages /month /device
free	40c	70c

IoT Central

NEW Preview Capabilities

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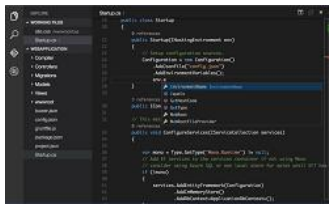
Device Capability Model

Device Capability Model

JSON-LD Schema

VS Code



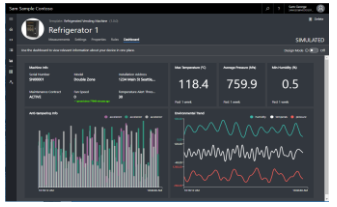
IoT Plug and Play Device Software

Generated Device Agent

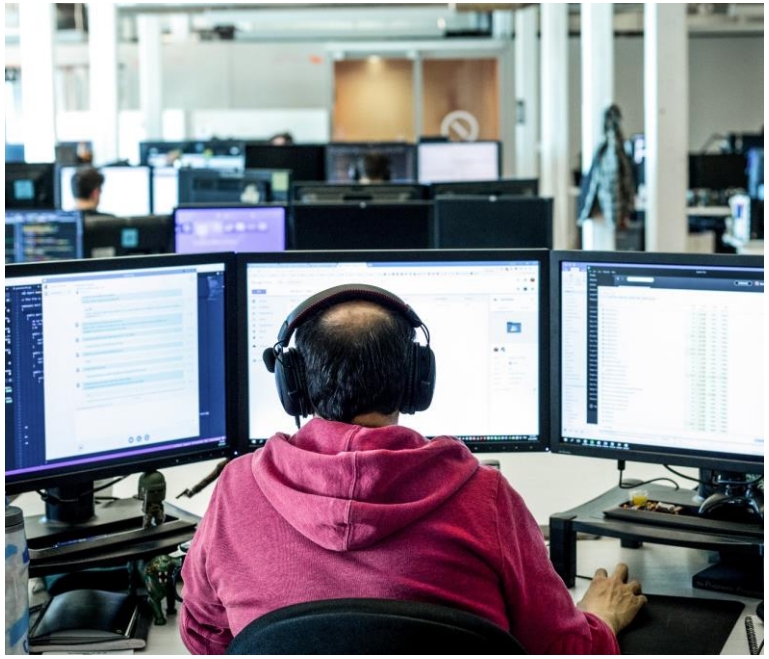
Azure IoT Device SDK

Azure IoT Device Catalog IoT Plug & Play Certified

Azure IoT Central & Partner Solutions



IoT device challenges for solution developers today:



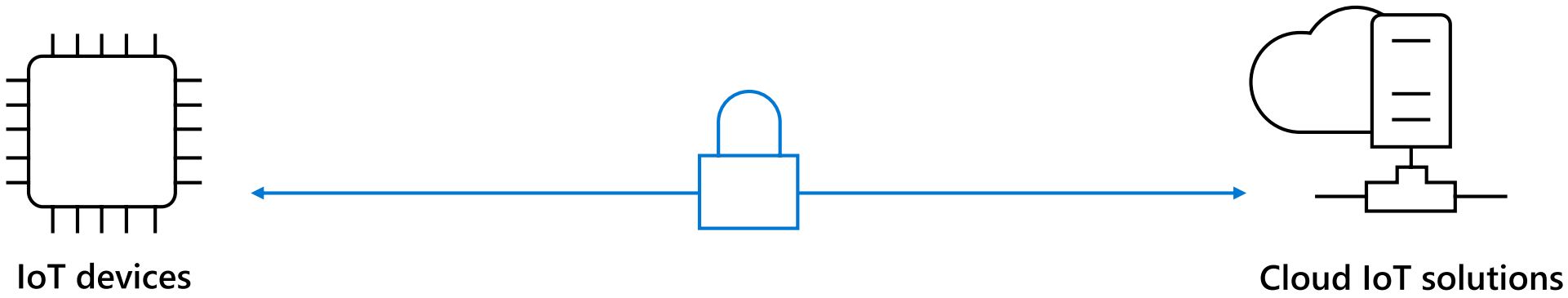
In-depth knowledge of embedded development is required to connect to the cloud, send telemetry, and apply configuration changes

Extremely difficult for solution developers to transform low-level device messages into meaningful data, events, and workflows

Hardware sourcing, integration, and ramping to production can take months or even years for most of our customers.

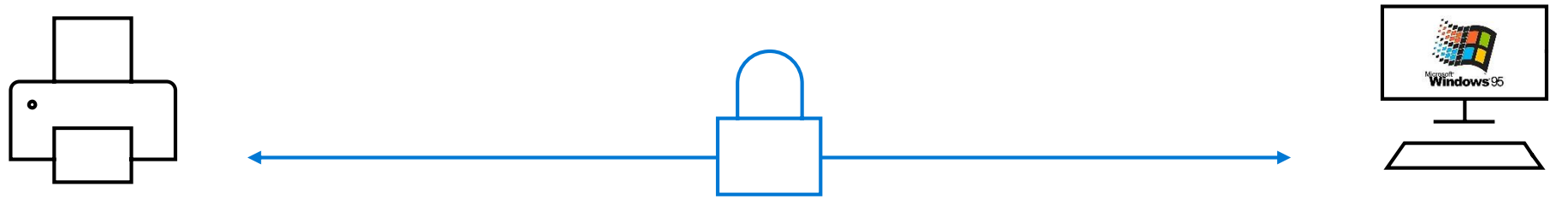
Azure IoT must simplify how IoT devices integrate with solutions built on the Azure platform

IoT today



Tight coupling between software on device and IoT solution in the cloud

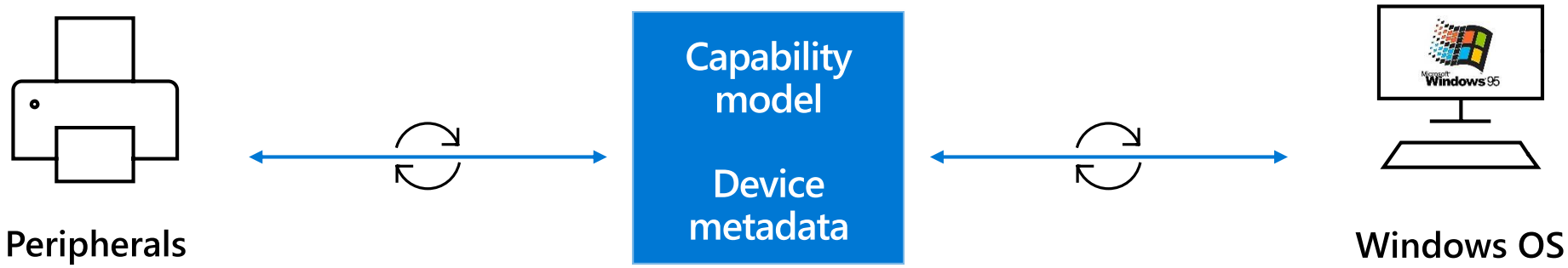
We had a similar challenge in the past…



Peripherals

Windows OS

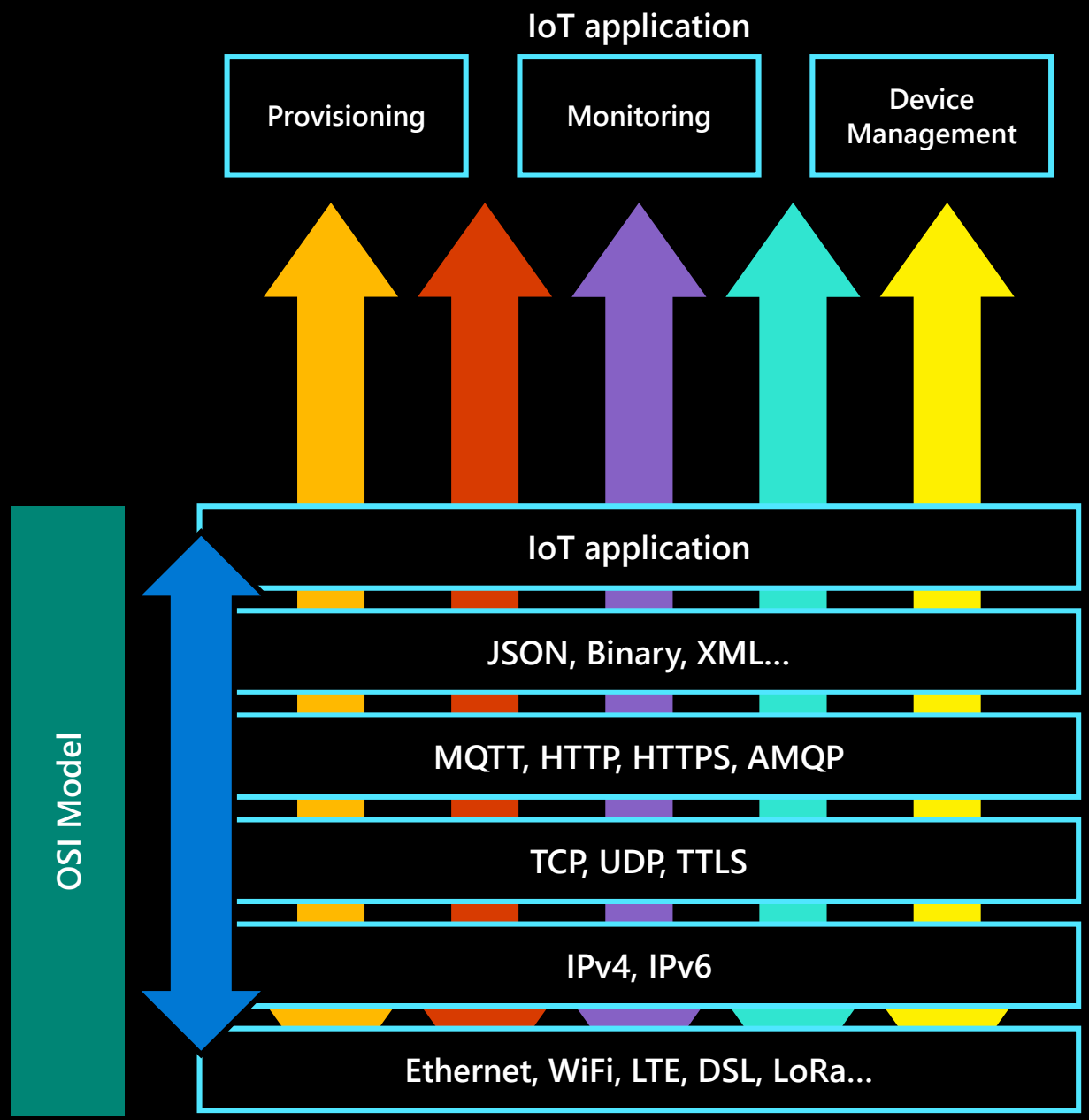
That was solved with Windows Plug and Play



Devices published their capability models and adhered to them
Windows used the capability model to know how to interact with them

Connecting hardware is very "hard"

Provisioning
Configuration
Device management
Deployment
Monitoring

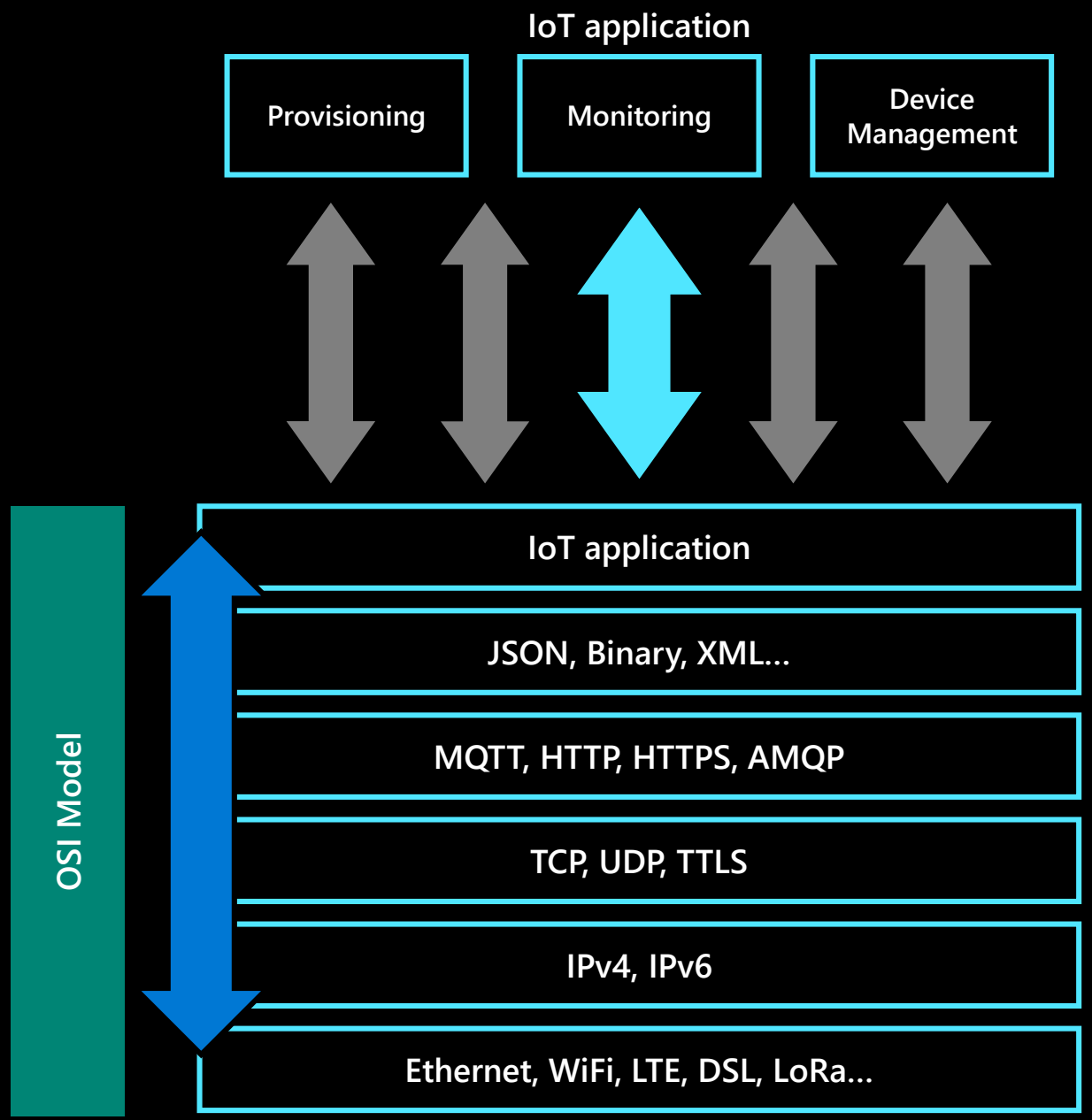


IoT Plug and Play defines common language

A platform feature to describe models and capabilities to Cloud

Based on Digital Twin definition language

Open source based on open standards (JSON-LD, RDF)



Benefits

Solution developers

Dramatically reduces the effort needed to build software on devices

Customers and partners

Large ecosystem of devices that just work with Azure IoT solutions, without any development required

Device builders

Certify your device for IoT Plug and Play and it can be used with thousands of Azure IoT solutions

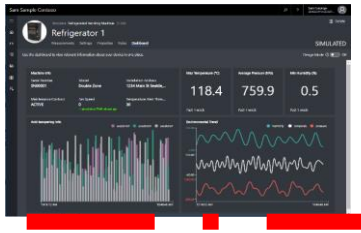
In public preview

http://aka.ms/IoTPlugandPlay

IoT Plug and Play

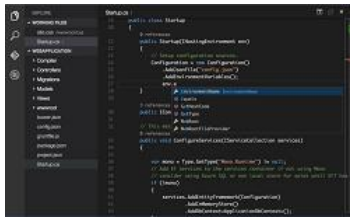
Devices that just work out of the box with no code required

Partner Solutions & Azure IoT Central



Azure IoT Device Simulation

VS Code



Easy to model device capabilities, easy to generate device software skeleton

Device Capability Model

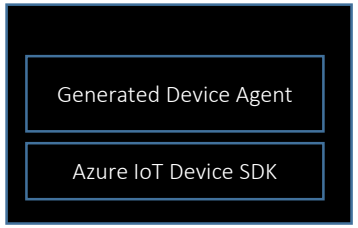
JSON-LD Schema

Easy to certify plug and play devices

Easy for customers and partners to find plug and play devices that just work

Azure IoT Device Catalog IoT Plug & Play Certified

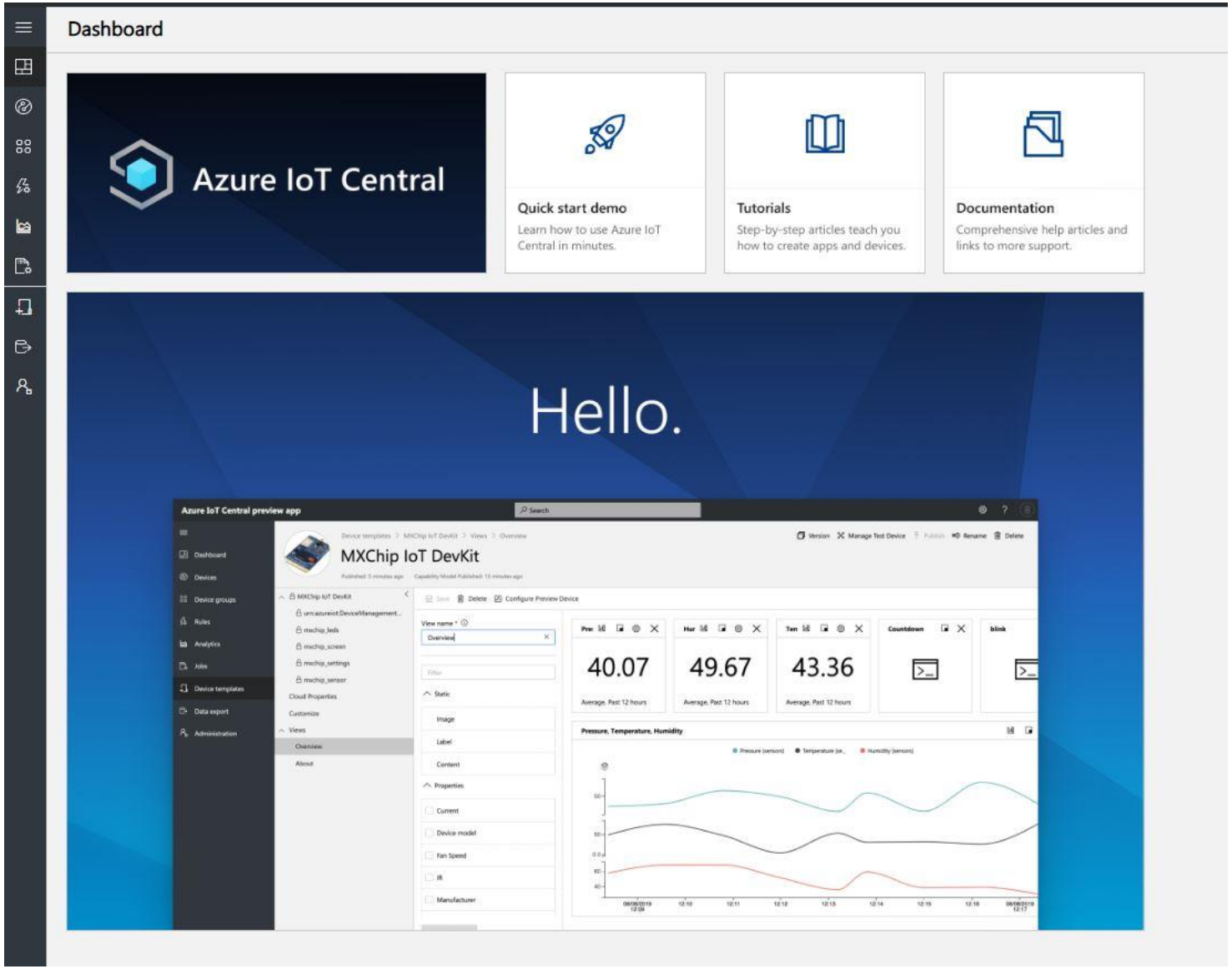
IoT Plug and Play Device Software



Easy to develop device software and ensure it just works with IoT solutions

IoT Plug & Play in IoT Central

Demo



Resources

- https://aka.ms/iotcentral-pnp-video
- https://aka.ms/iotcentral-pnp-tutorials