Microsoft

A Brief Journey from Device to Action …

hackster.io

IoT Virtual Bootcamp

December
12 – 14, 2017

http://aka.ms/IoTVirtualBootcamp

Hardware Partners :

adafruit

Introduction to INTERNET OF THINGS

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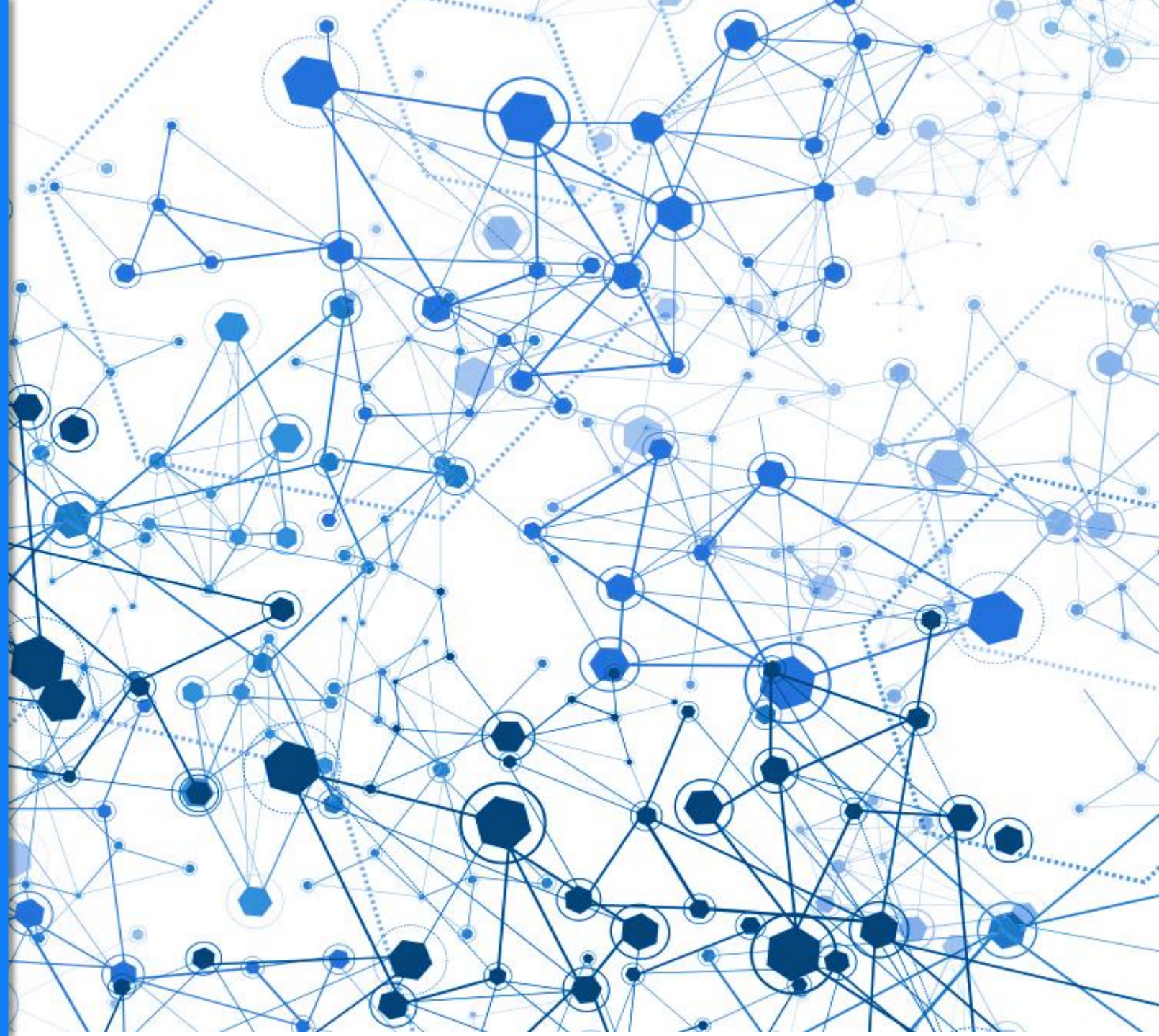
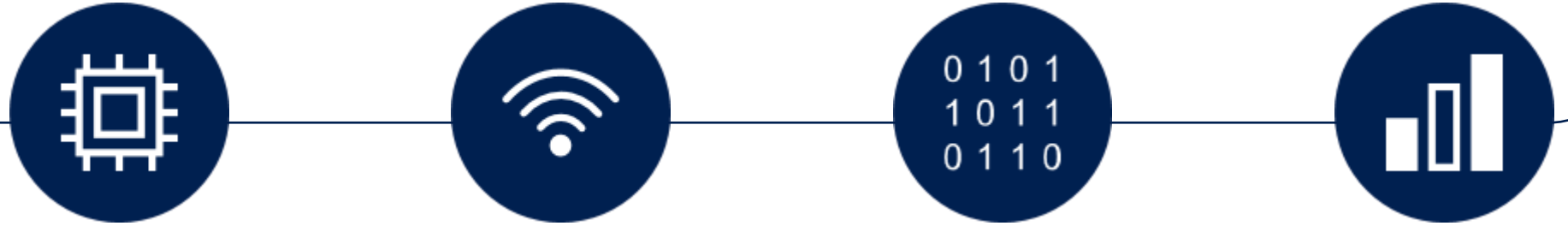
December 2017



Microsoft

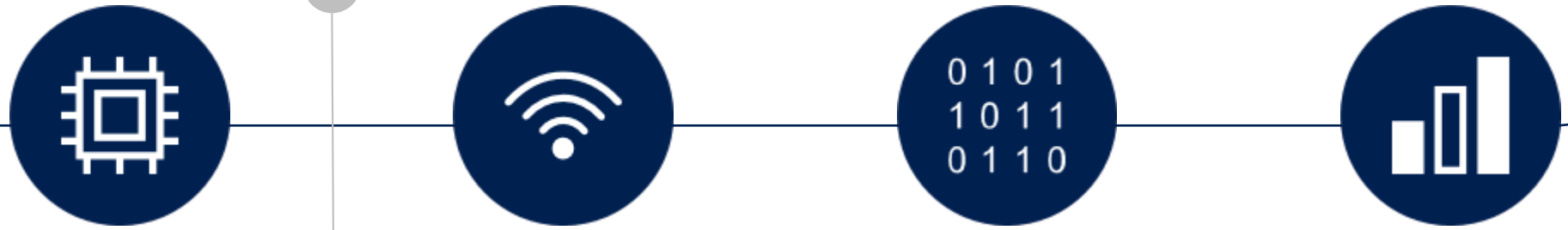
Capture and analyze data to improve results across your business



Internet of Things

Analytics (Cortana Intelligence)

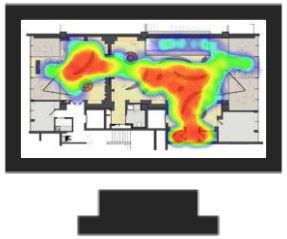
Capture and **analyze data** to **improve results** across your business



Transformation

Innovating with IoT

Location Analytics



Location based marketing

Real-Time Inventory

Lighted Shelving

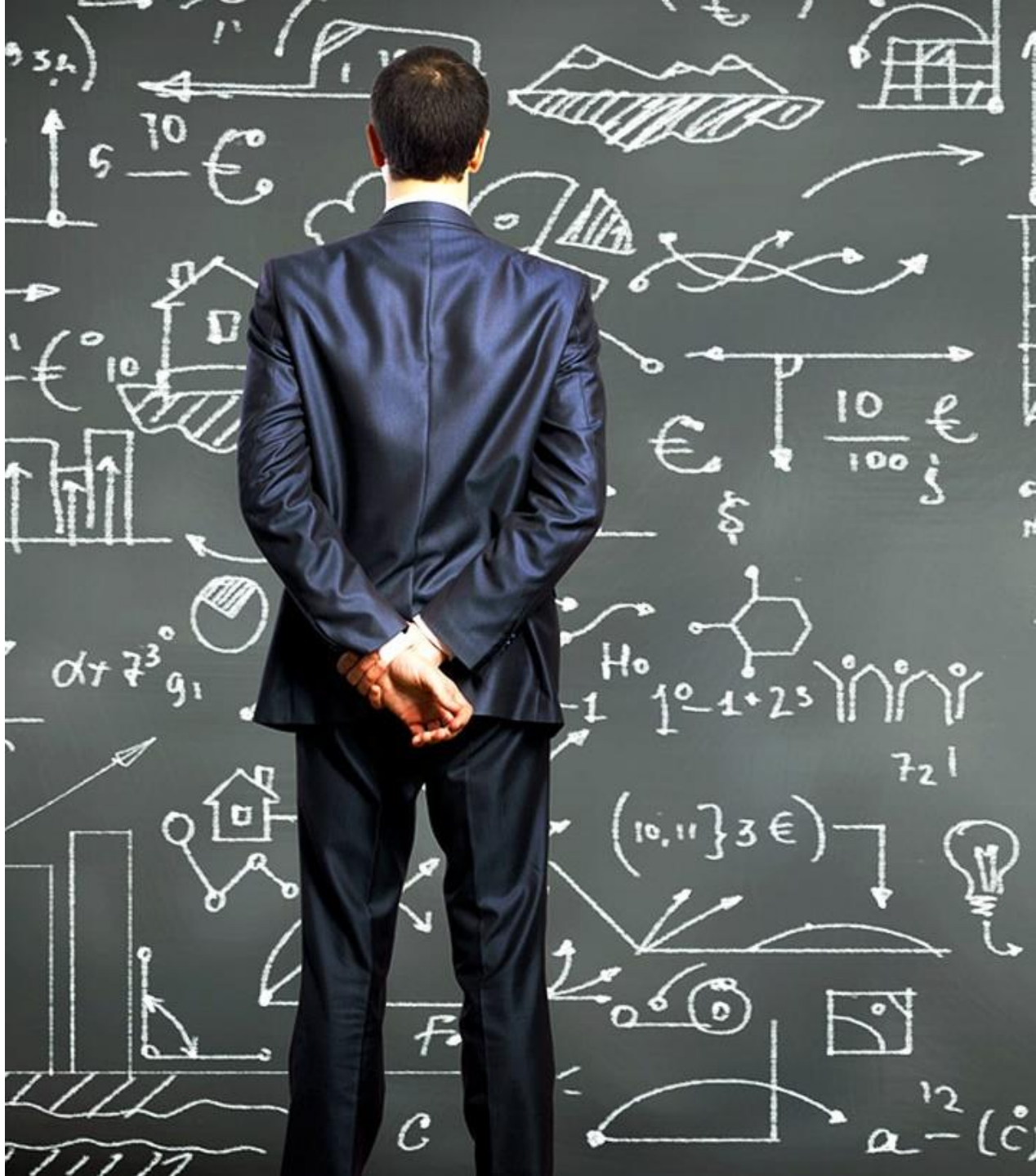
IoT projects can be complex

Difficult to maintain cohesive security

Time-consuming to stand up

Incompatible with current infrastructure

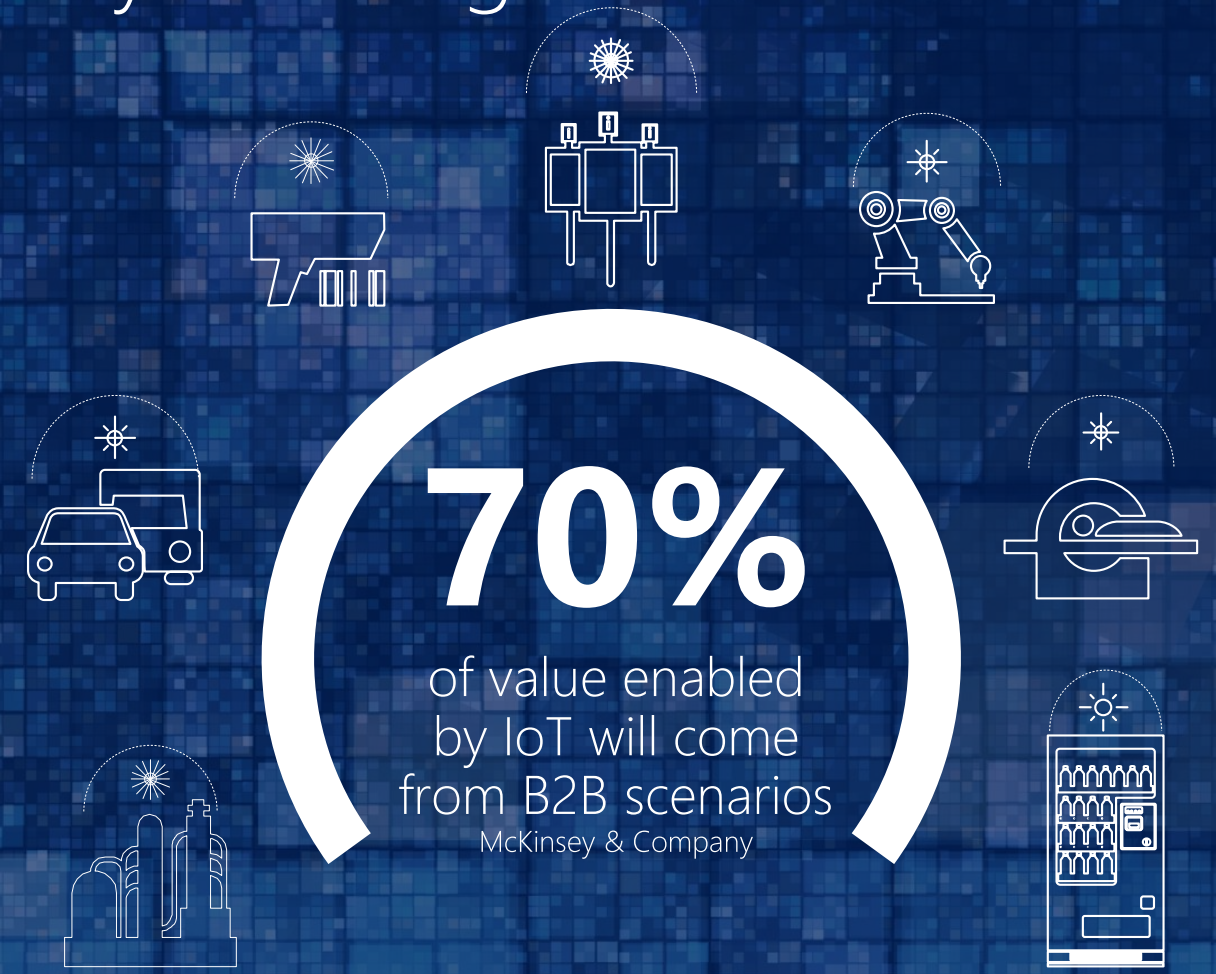
Hard to scale



Microsoft's view on IoT

The Internet of Things starts with your things

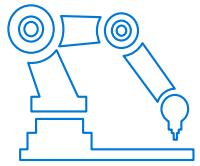
- Build on the infrastructure you already have
- Add more devices to the ones you already own
- Get more from the data that already exists



Defining Internet of Things

Benefit from a comprehensive solution

Connect and scale with efficiency



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Real-time operating systems

And more

Analyze and act on new data

Analytics

Rules and Actions

Dashboards & Visualization

Integrate and transform business processes

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Business Systems

SAP

Microsoft Dynamics

ORACLE

salesforce

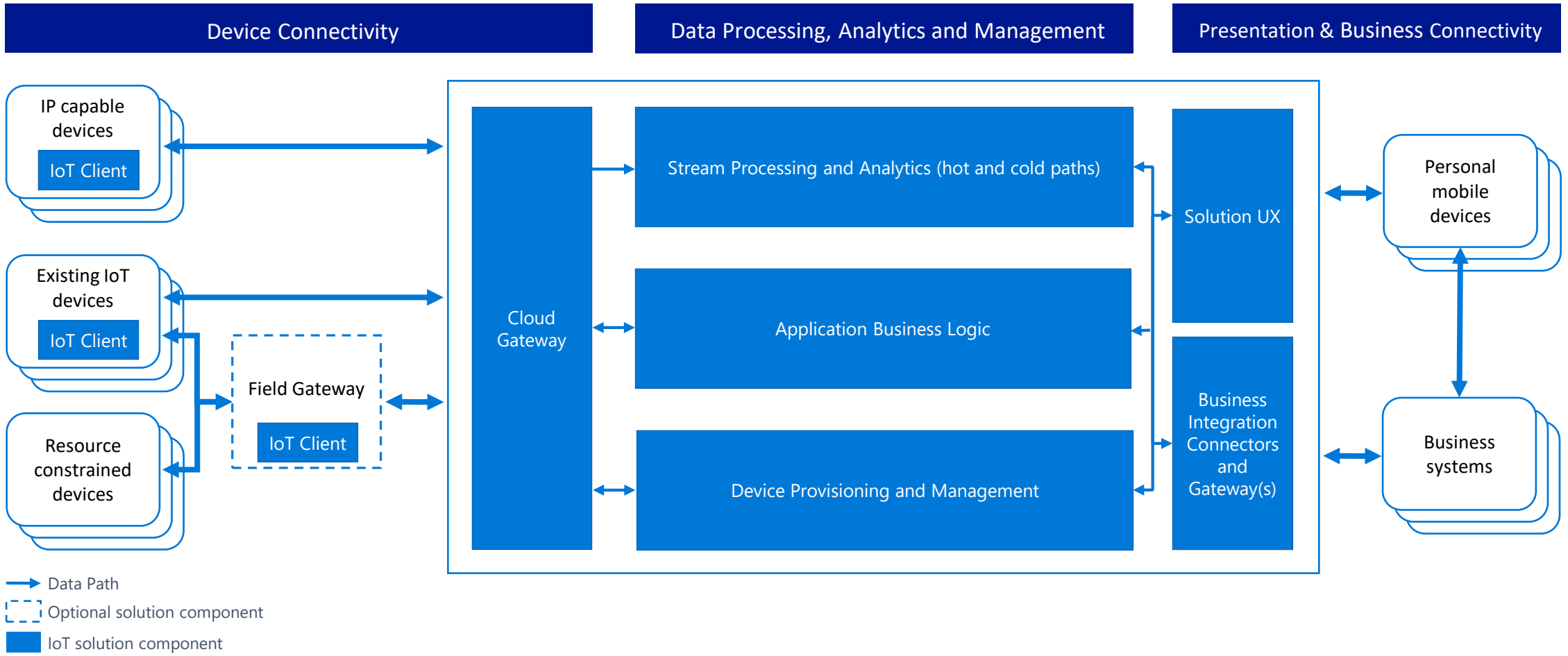
IBM DB2

WebSphere

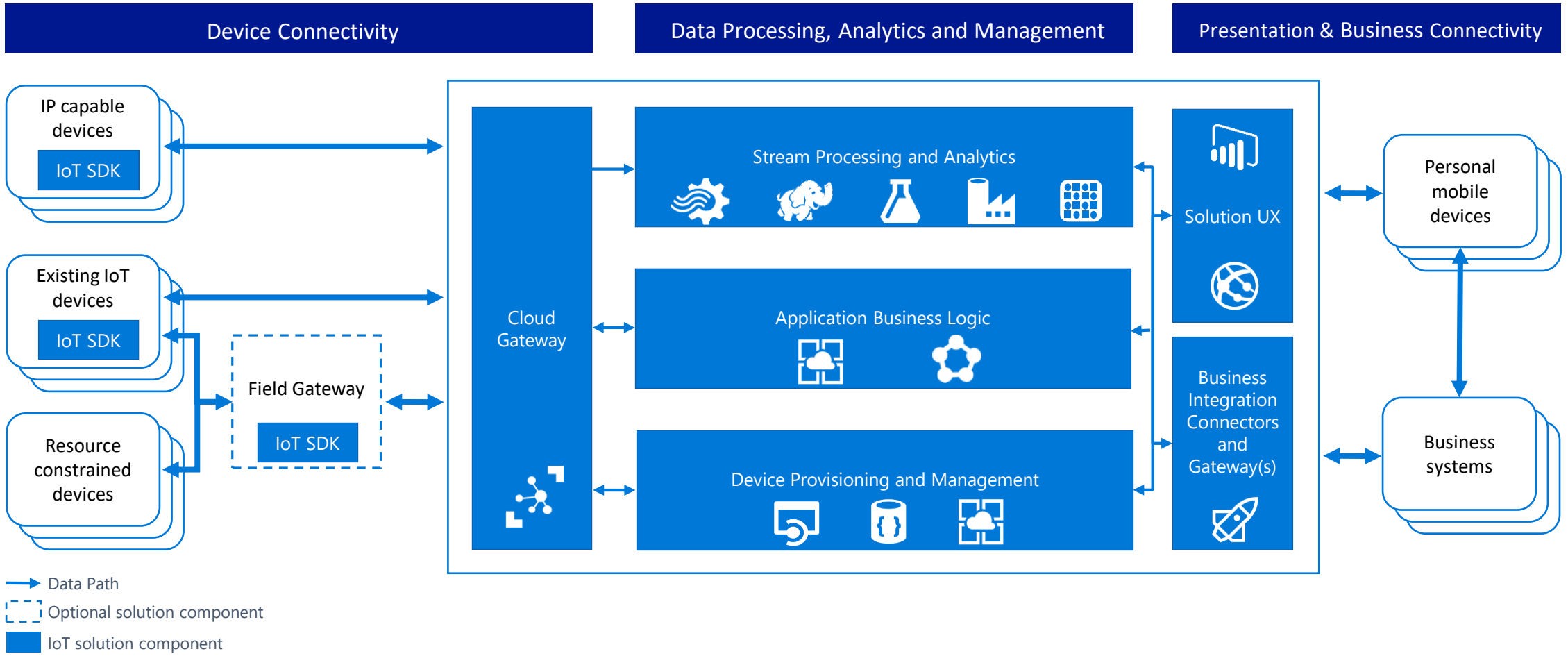
Informix. software

Office 365

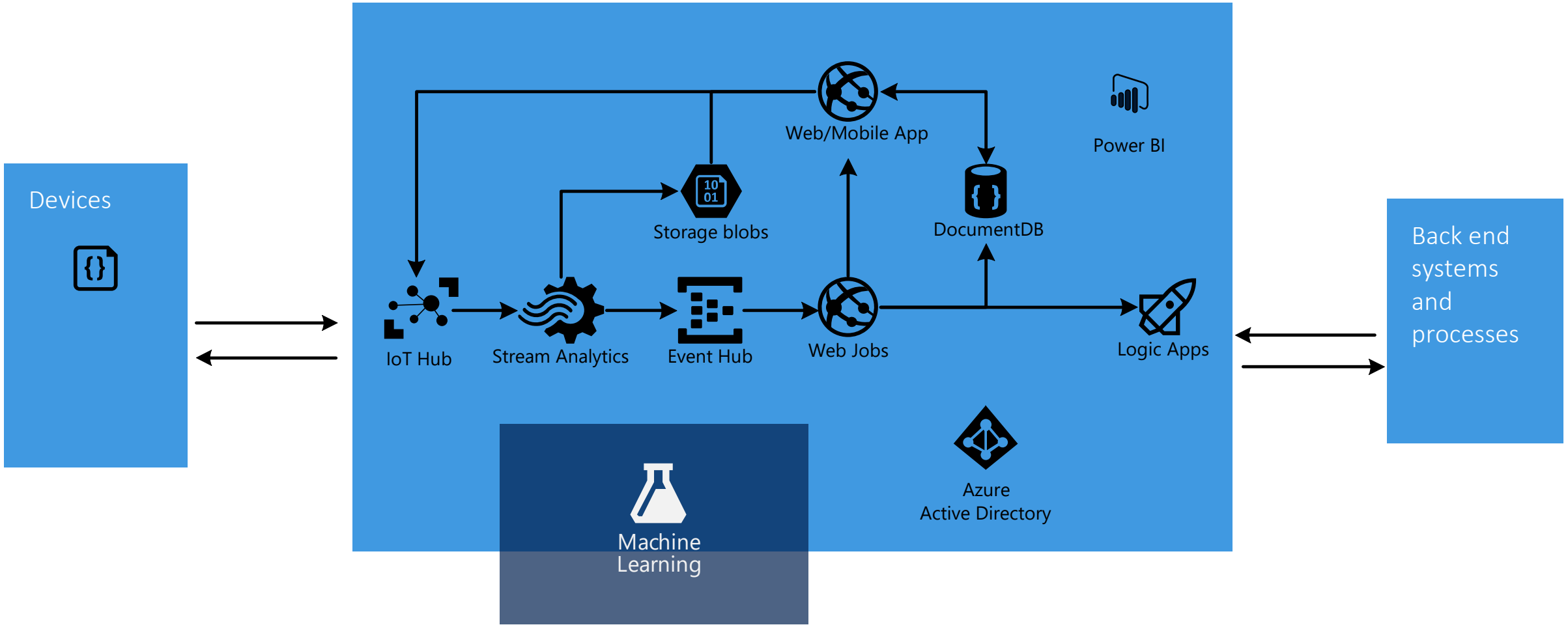
Reference Architecture



Azure IoT Services



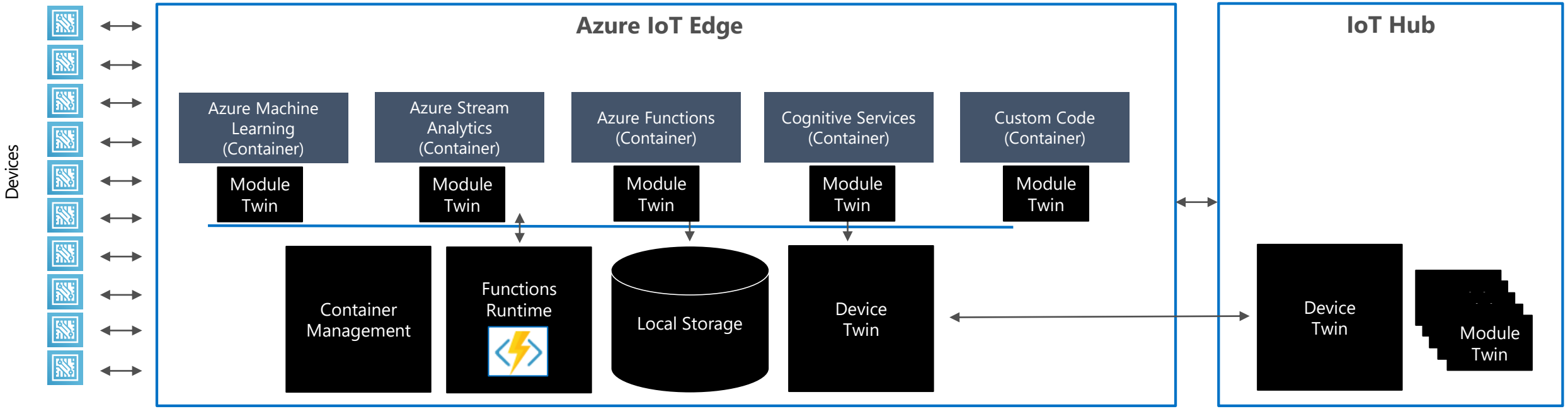
Reference Architecture



Azure IoT Edge, Bring it all together!

- Container based modules
- Azure Functions
- Azure Stream Analytics
- Azure Machine Learning
- Cognitive Services

- Offline / Synchronized Device Twins
- Local Storage
- Cloud Management & Deployment
- High Availability / Fault Tolerance
- Cloud Dev/Test Support



Azure IoT Suite

- Device Connectivity & Management
- Data Ingestion and Command & Control
- Stream Processing & Predictive Analytics
- Workflow Automation and Integration
- Dashboards and Visualization
- Preconfigured Solutions
  - Remote Monitoring
  - Predictive Maintenance
  - Connected Factory

Additional References:

- http://www.InternetofYourThings.com
- https://blogs.microsoft.com/iot/
- https://azure.microsoft.com/en-us/suites/iot-suite/
- https://azure.microsoft.com/en-us/services/iot-edge/

Summary:

IoT is transformative by: Ingesting, Analyzing and Acting upon device produced data.

IoT Devices can take many forms:

- IP Capable Devices
- None IP Capable Devices (need a gateway)
- Edge Computations (IoT Edge)

www.InternetofYourThings.com