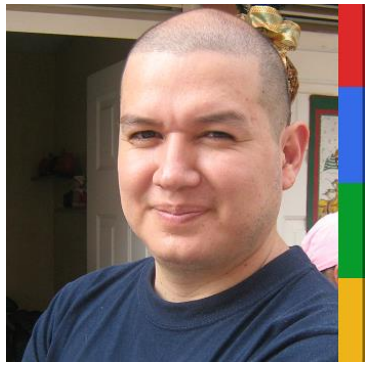
# Soluciones inteligentes integrando SharePoint con IoT

Speaker: Oscar Polanco | @opolancoh

# Oscar Polanco | @opolancoh

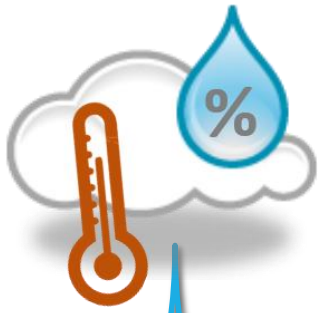


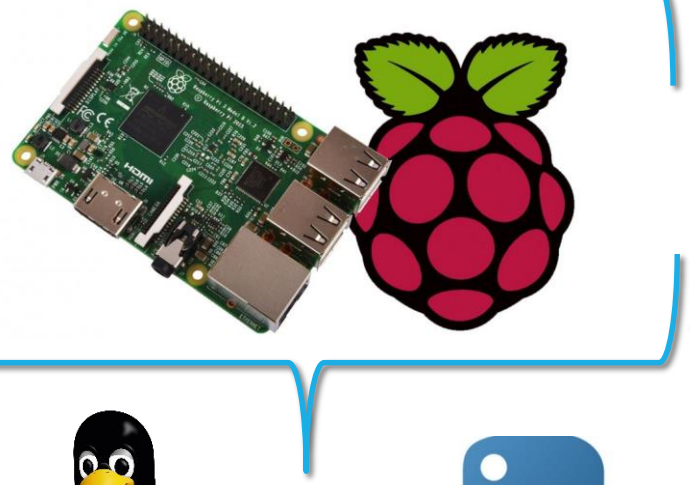
- Electronic Engineer
- Professional Cloud Solution Architect
- Microsoft Certified Solutions Developer

Professional Cloud Solution Architect, Software Engineering Specialist and Microsoft Certified Solutions Developer. 11+ years software development, design architecture and/or implementation experience for Microsoft-enabled platforms and technologies. Mainly in Microsoft Azure, ASP.NET Core, ASP.NET MVC, ASP.NET Web Forms, ASP.NET Web API, Entity Framework, OData, WPF, UWP, SQL Server, Oracle, Office 365 with SharePoint (On-Premises & Online). Additionally, I also have worked with other technologies such as NodeJS, Express and Python for IoT solutions.

Passionate in architecting, configuring, and deploying enterprise implementations for the SharePoint product line and the Microsoft technology stack, including next generation product stack. Efficiency in managing a successful digital transformation as they adopt the tools of a digital business.

# Our Goal





SAML

101110100110110000010111

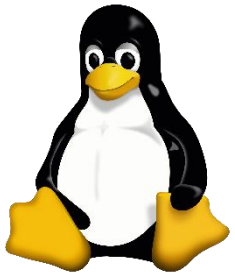
REST

Microsoft

JS

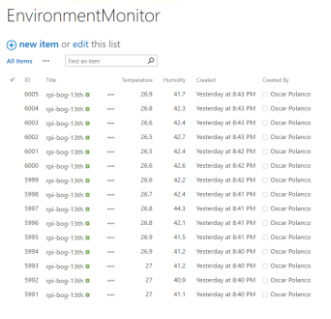
SharePoint

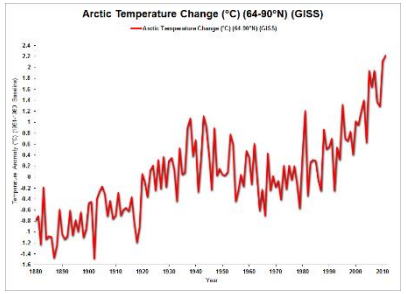
Office 365



Raspbian


Custom List



# Smart solutions integrating Office 365 and IoT

| | |
|---|---|
| 01 \| IoT: Introduction | 05 \| O365-IoT integration overview |
| 02 \| IoT: Examples, case studies | 06 \| Demo |
| 03 \| IoT: Azure IoT Suite | |
| 04 \| IoT: Solutions Architecture | |

# 01 | IoT: Introduction

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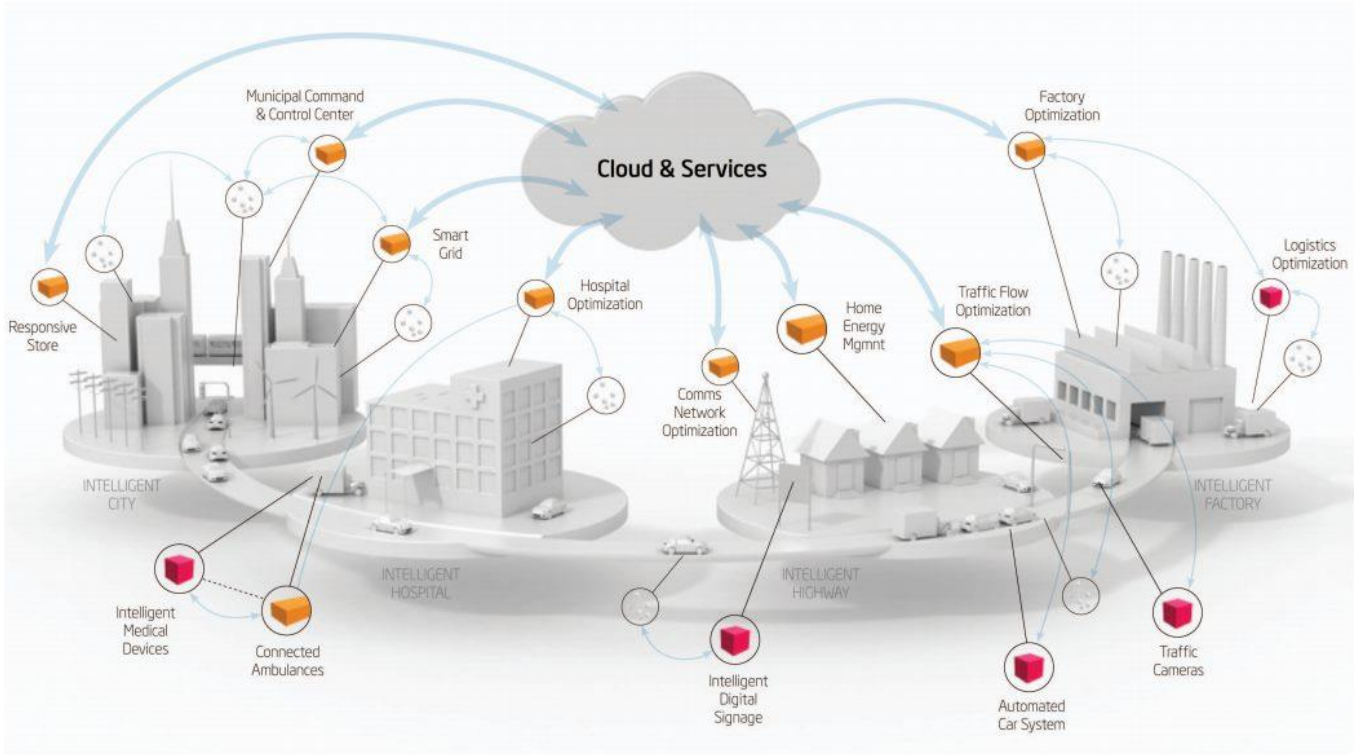
# Internet Of Things




The internet of things is the network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable it to achieve greater value by exchanging data with internet and/or other connected devices.

# 02 | IoT: Examples, case studies

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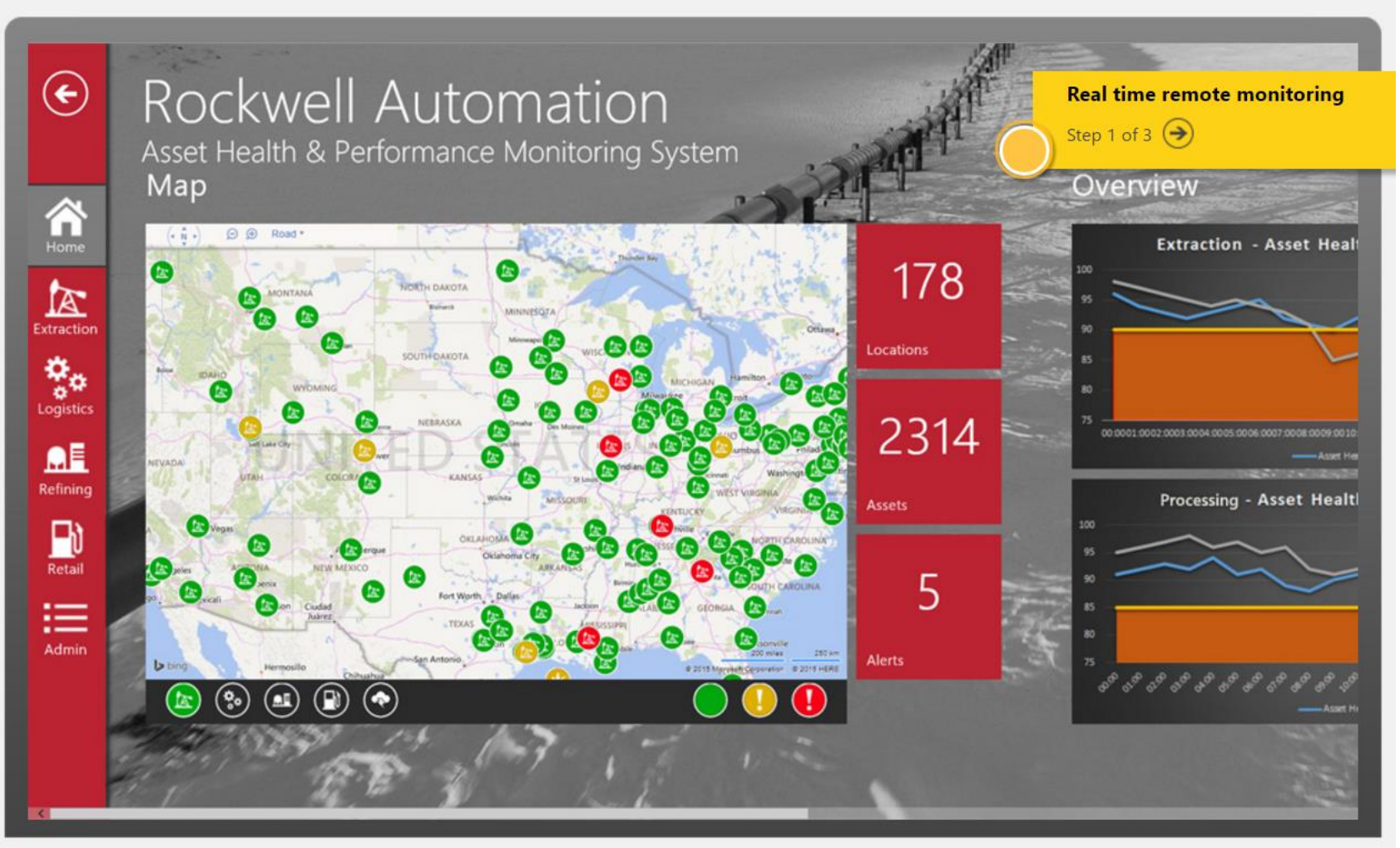
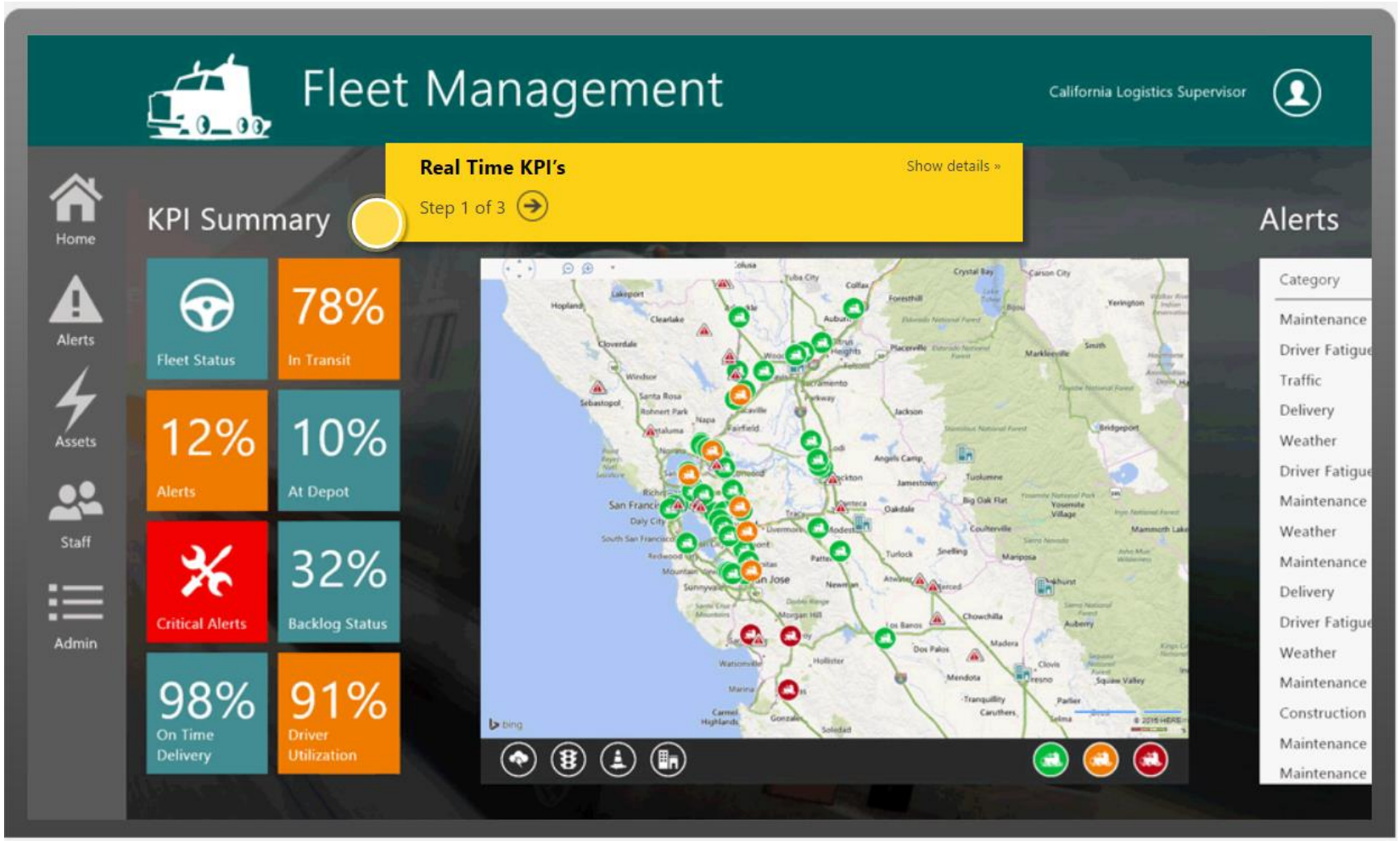
# Example 1: Predictive maintenance



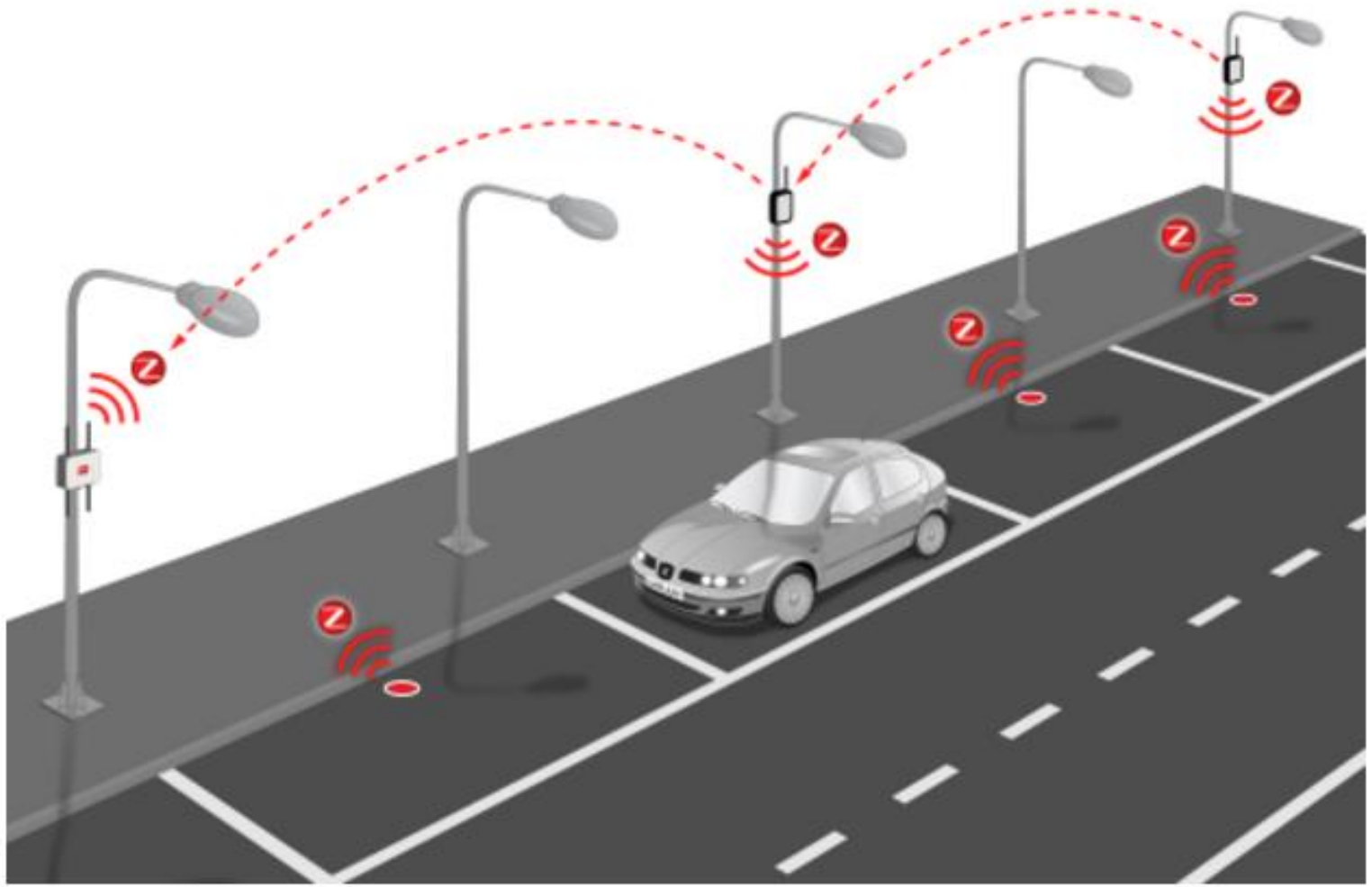

http://www.microsoftazureiotsuite.com/demos/predictivemaintenance

# Example 2: Remote monitoring



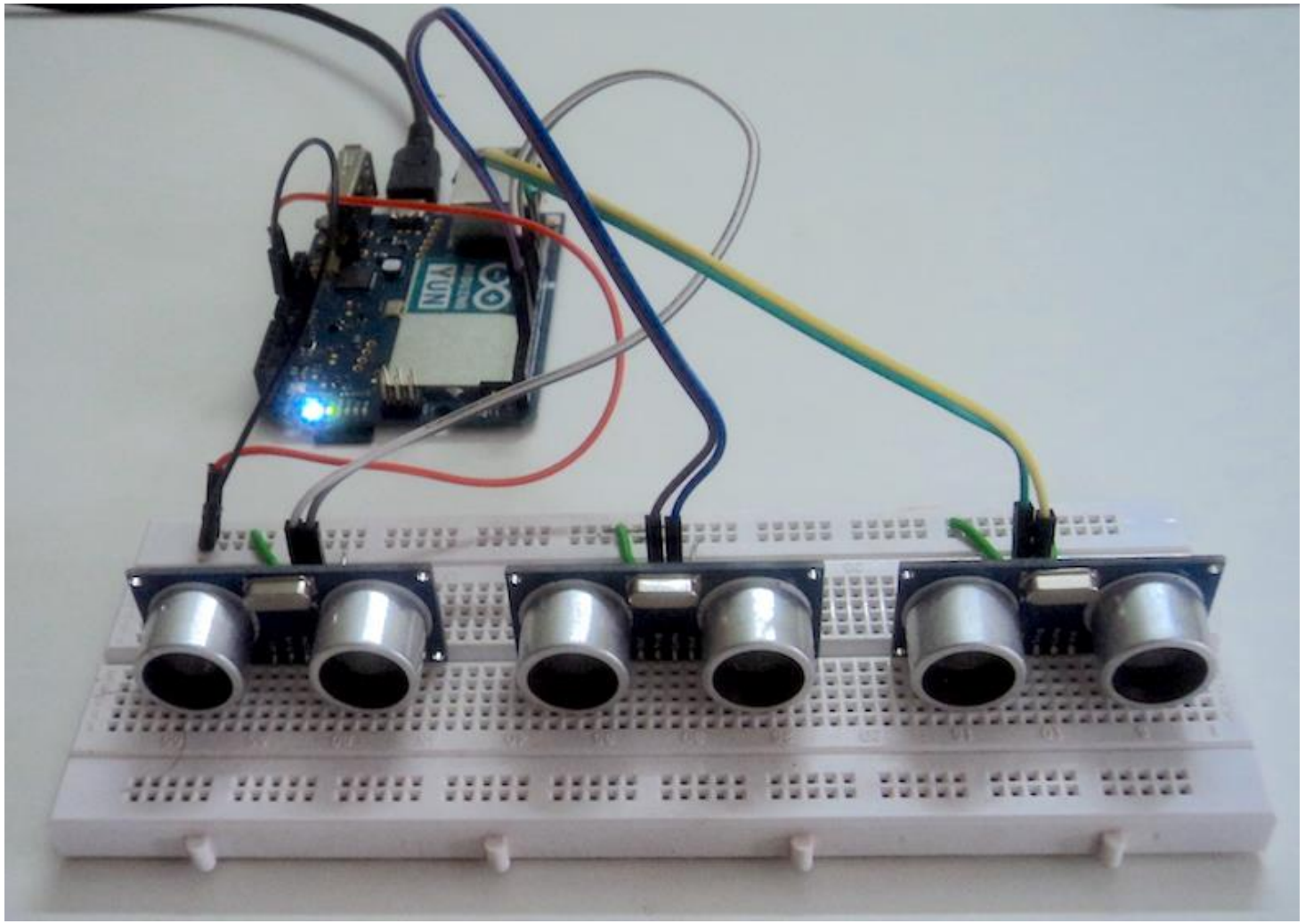

http://www.microsoftazureiotsuite.com/demos/remotemonitoring

# Example 3: Smart Parking



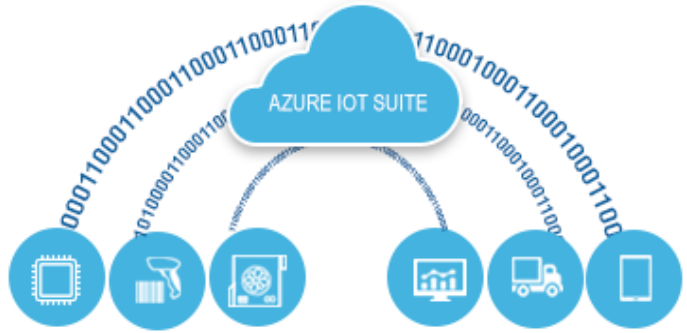
http://www.libelium.com/smart_parking

# Example 4: IoT Enabled Smart Parking Meter



https://developer.ibm.com/bluemix/2016/01/06/iot-enabled-smart-parking-meter/

# 03 | IoT: Azure IoT Suite

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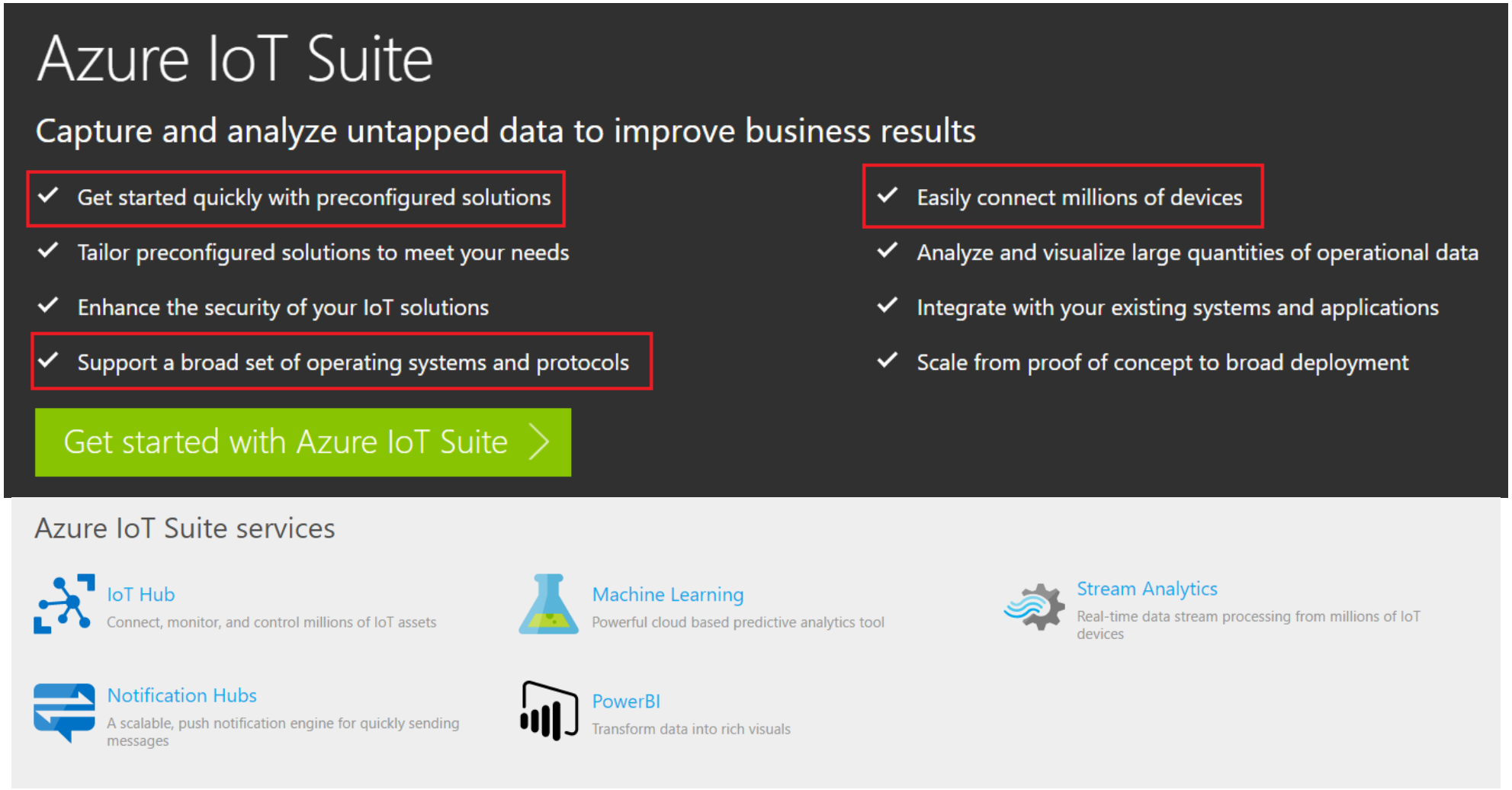
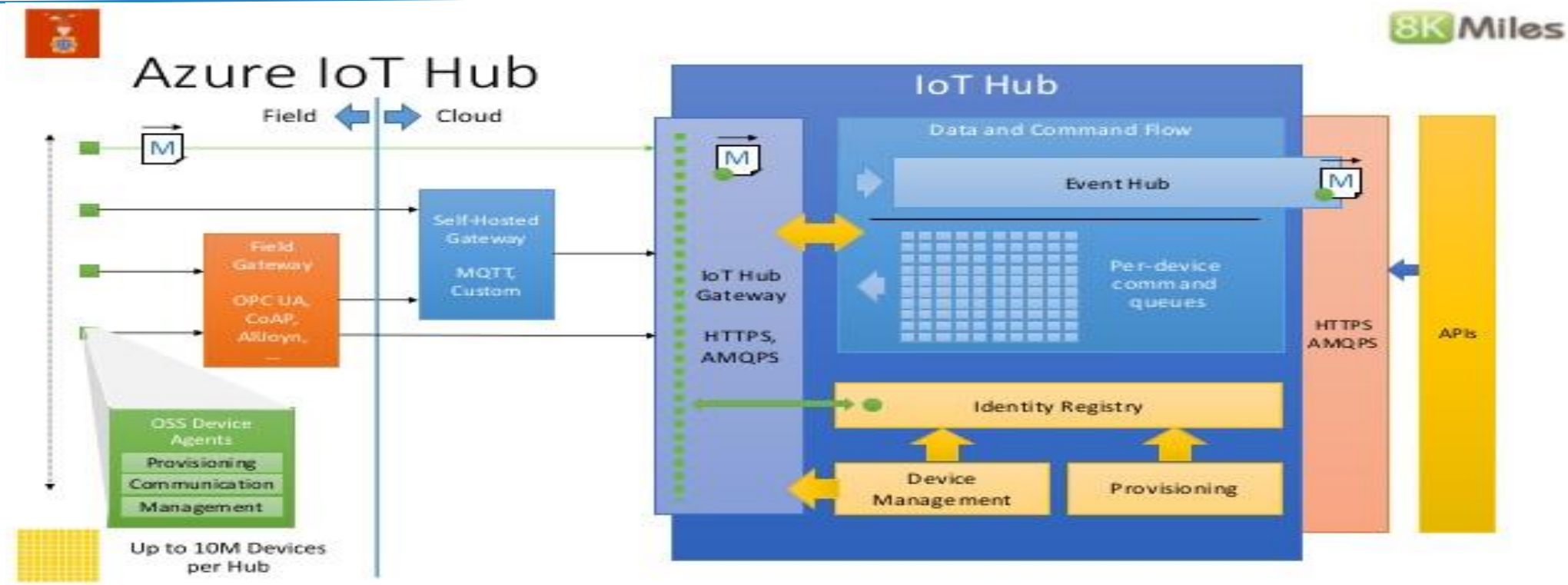
# Azure IoT Suite



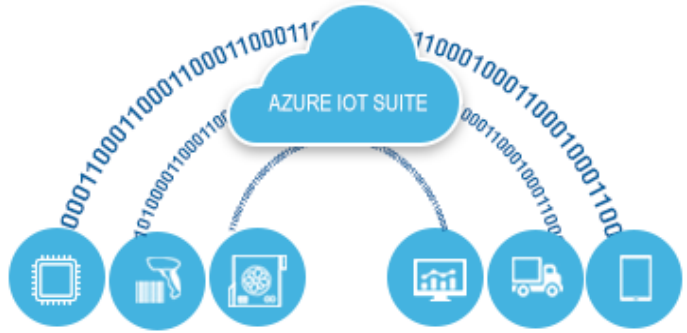

https://azure.microsoft.com/en-us/suites/iot-suite

# Azure IoT Hub




| EDITION TYPE | PRICE (PER MONTH) | TOTAL NUMBER OF MESSAGES/DAY |
|---|---|---|
| Free | Free | 8,000 |
| S1 | $50 | 400,000 |
| S2 | $500 | 6,000,000 |
| S3 | $5,000 | 300,000,000 |

# 04 | IoT: Solutions Architecture

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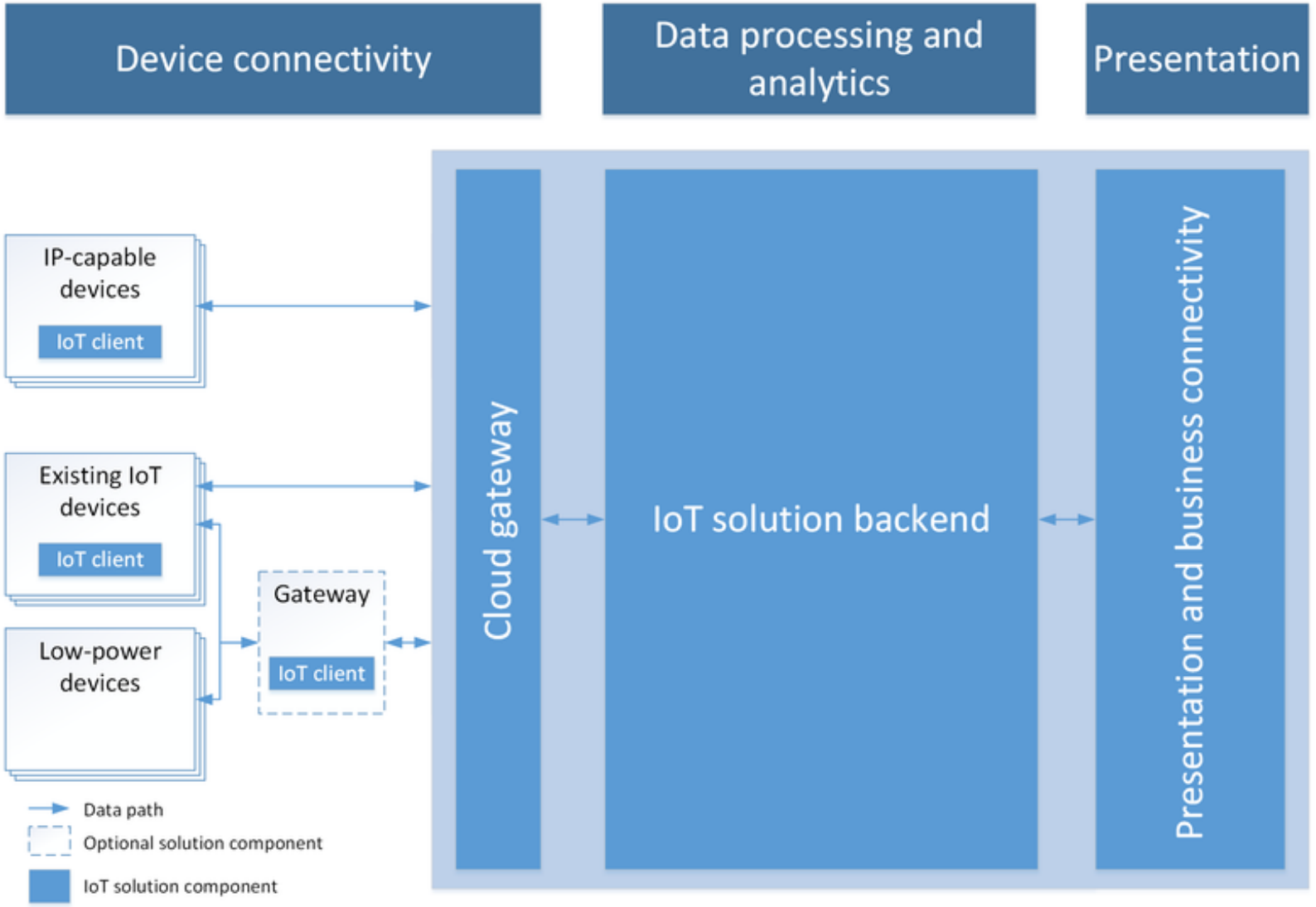
# IoT Solution Architecture

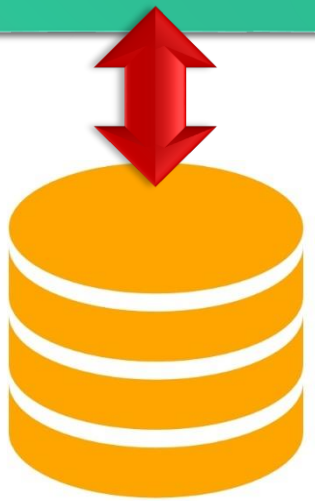


# IoT Solution Architecture

Internet

**Web Application**

- **Business Logic**
- **Authentication**
- **Authorization**



# 05 | O365-IoT integration overview

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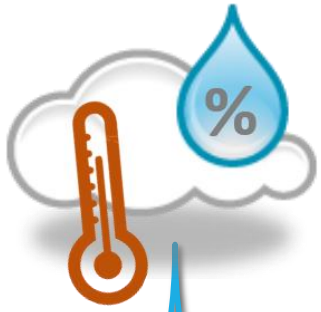
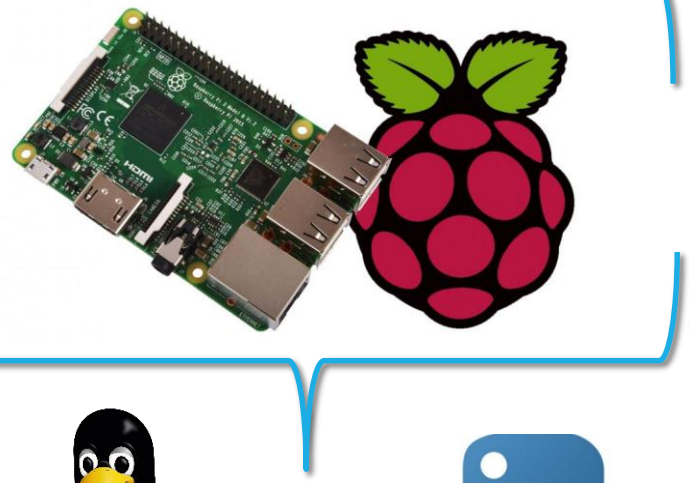
# Office 365 (SharePoint Online) – IoT Integration





SAML

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REST

Microsoft

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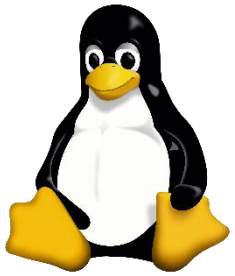
SharePoint

Office 365



Raspbian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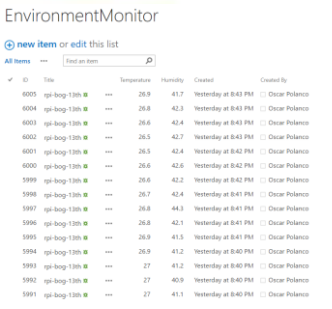
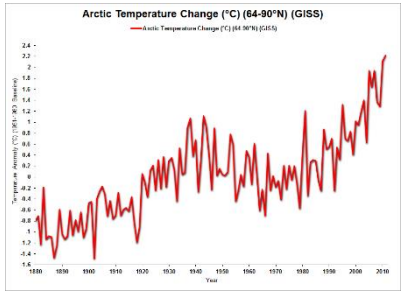
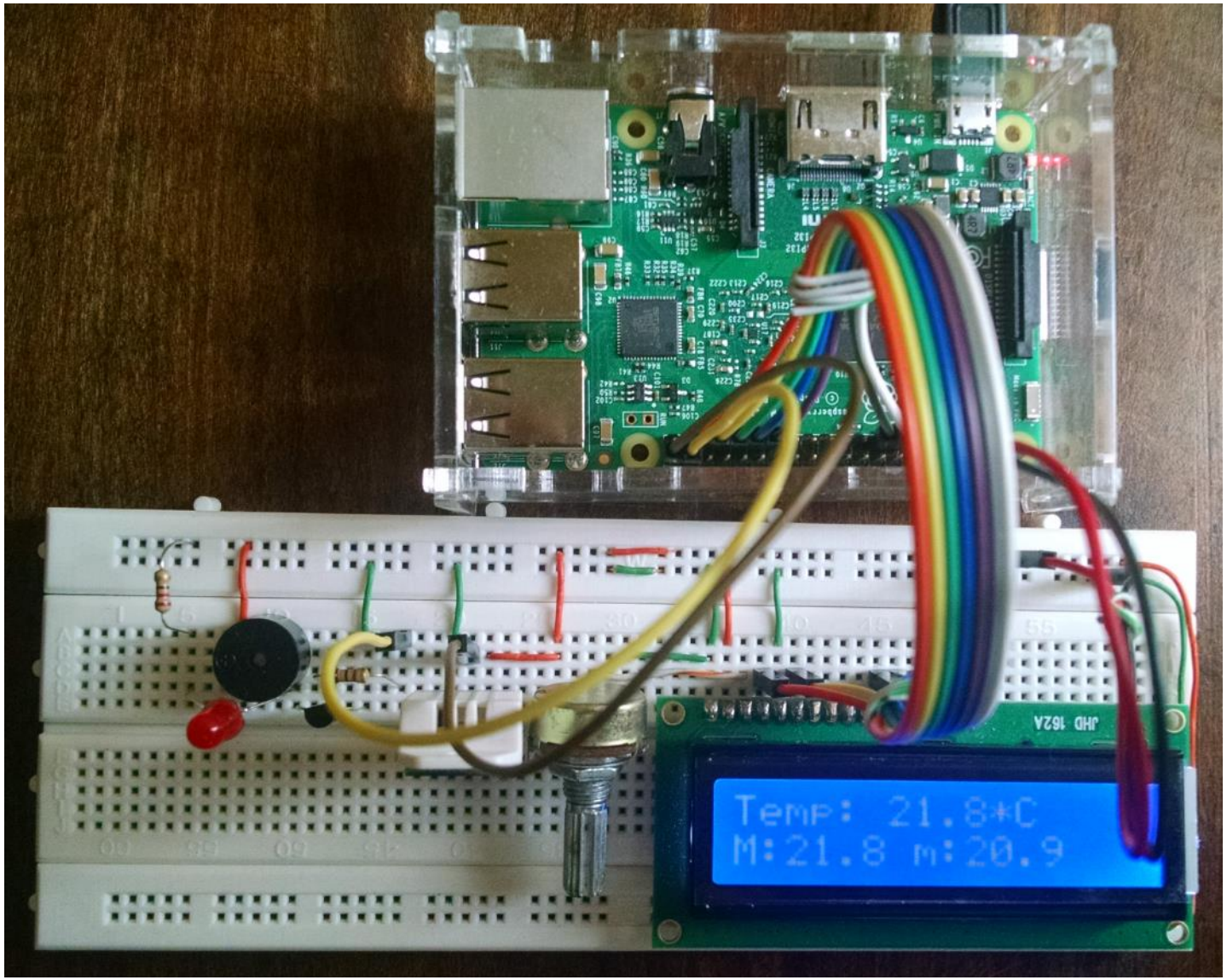


# Electronic device

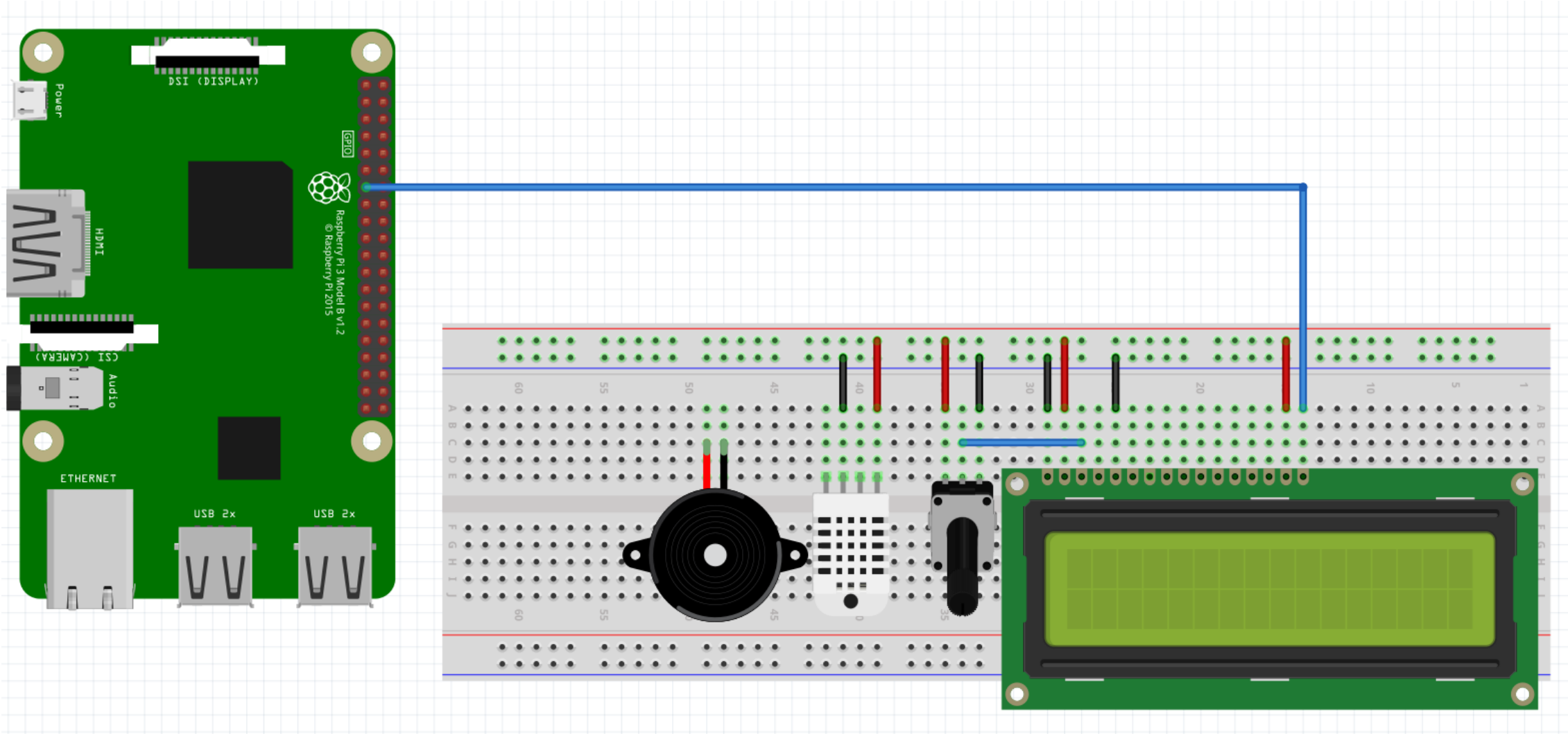




LCD 16x2

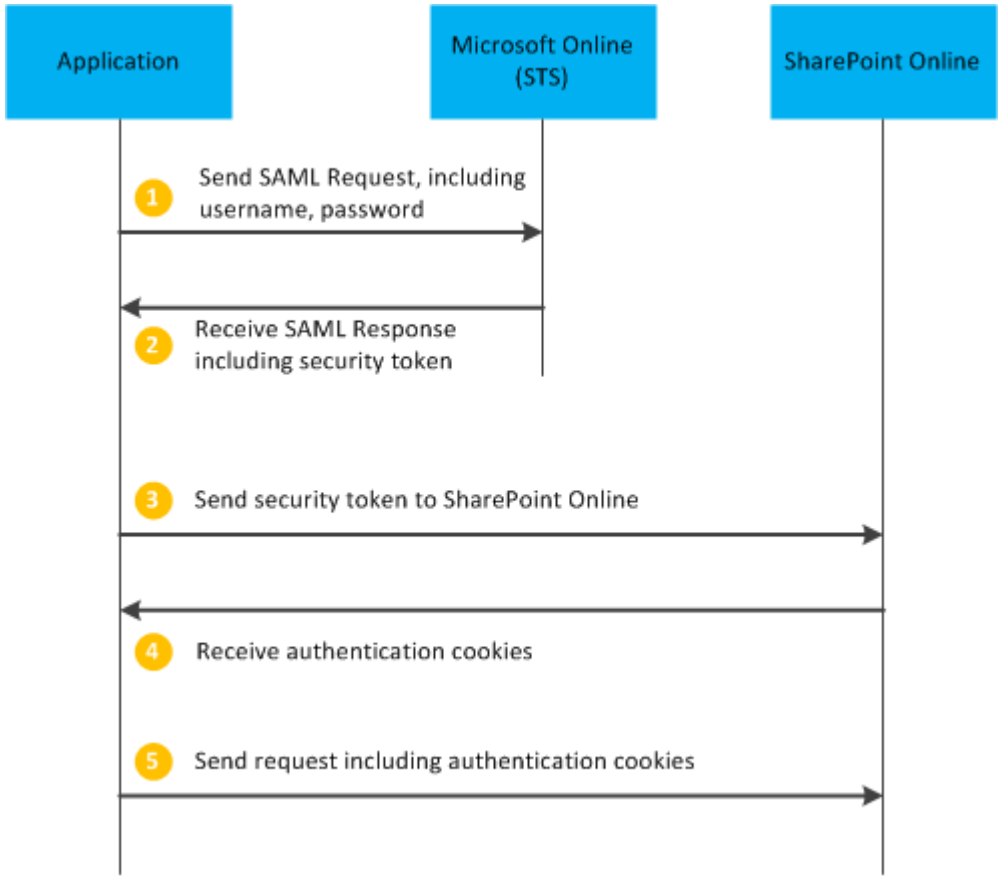

Temperature, Humidity Sensor

# Electronic circuit diagram



# User authentication - SAML

## SharePoint Online Remote Authentication




http://paulryan.com.au/2014/spo-remote-authentication-rest
https://github.com/vgrem/Office365-REST-Python-Client


DEMO
TIME

# Gracias

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