Microsoft
Azure
The Internet of Things is here!
Charles Verdon
Data Innovation Strategist

"Ransomware attacks will target more IoT devices in 2018"

"Huge IoT botnet may be used for Ukraine attack"

"Industrial IoT to equip new era of corporate intruders coming in through devices"

"When smart gadgets spy on you: Your home life is less private than you think"

"Security experts warn of dangers of connected home devices"

"Hacking these IoT baby monitors is child's play, researchers reveal"

"Hackers infect 500,000 consumer routers all over the world with malware"

"Your smart fridge may kill you: The dark side of IoT"

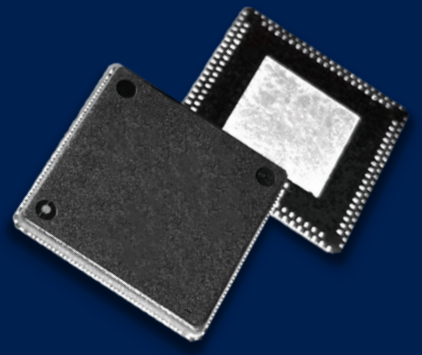
"The Lurking Danger of Medical Device Hackers"

"Why the KRACK Wi-Fi mess will take decades to clean up

"Hacking critical infrastructure via a vending machine? The IOT reality"

"Protecting Your Family: The Internet of Things Gives Hackers Creepy New Options"

Microcontrollers (MCUs)
low-cost, single chip computers



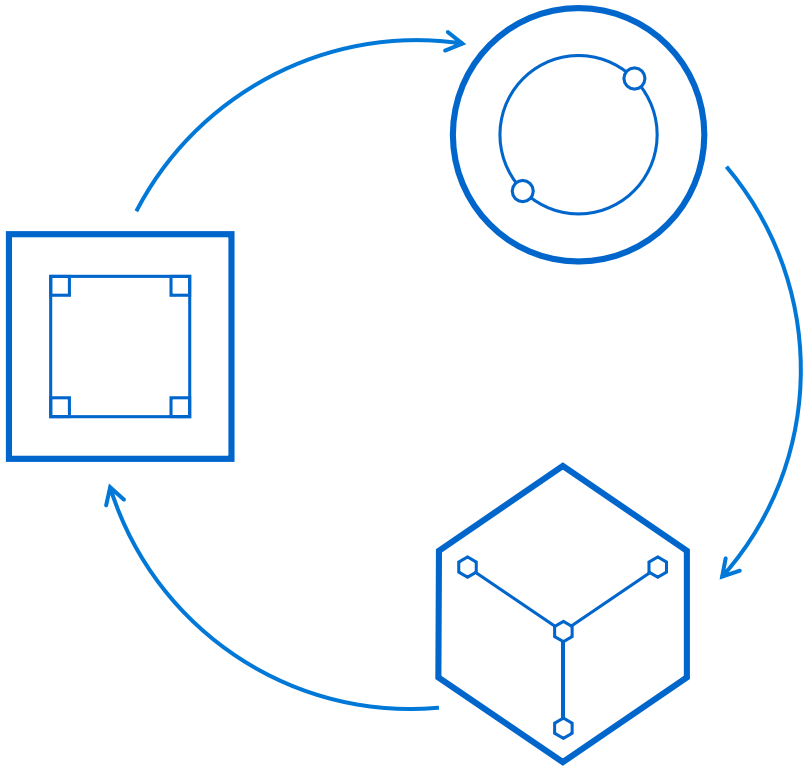
9 BILLION new MCU devices built and deployed every year

Fewer than 1% connected today

SECURITY IS FOUNDATIONAL
It must be built in from the beginning.

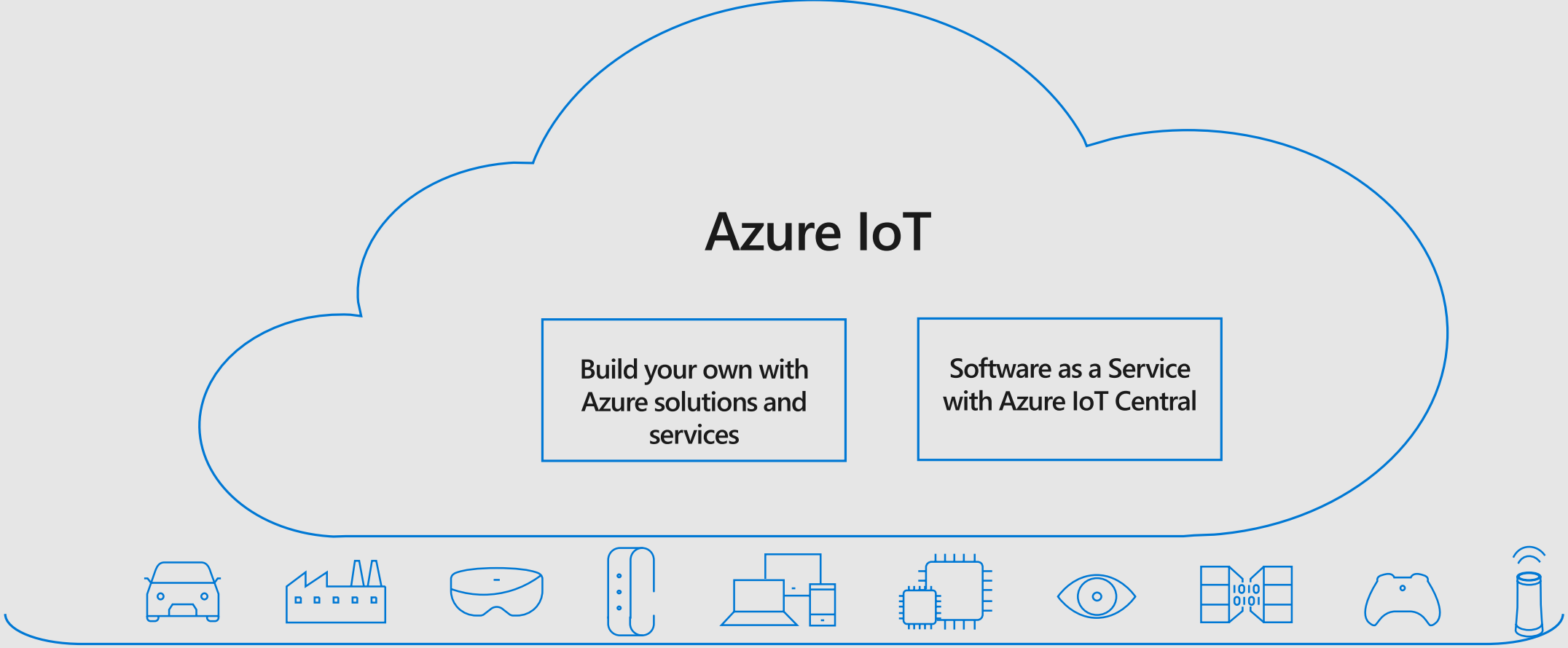
Azure Sphere is an end-to-end solution for securing MCU powered devices

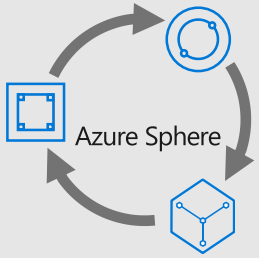
Azure Sphere certified MCUs, from our silicon partners, with built-in Microsoft **hardware root of trust**.



The **Azure Sphere Linux-based OS** with ongoing updates creates a **Microsoft-secured software platform**

The **Azure Sphere Security Service** guards every Azure Sphere device. It **brokers trust**, **detects emerging threats,** and **renews device security.**





Azure IoT Edge

Azure IoT Central

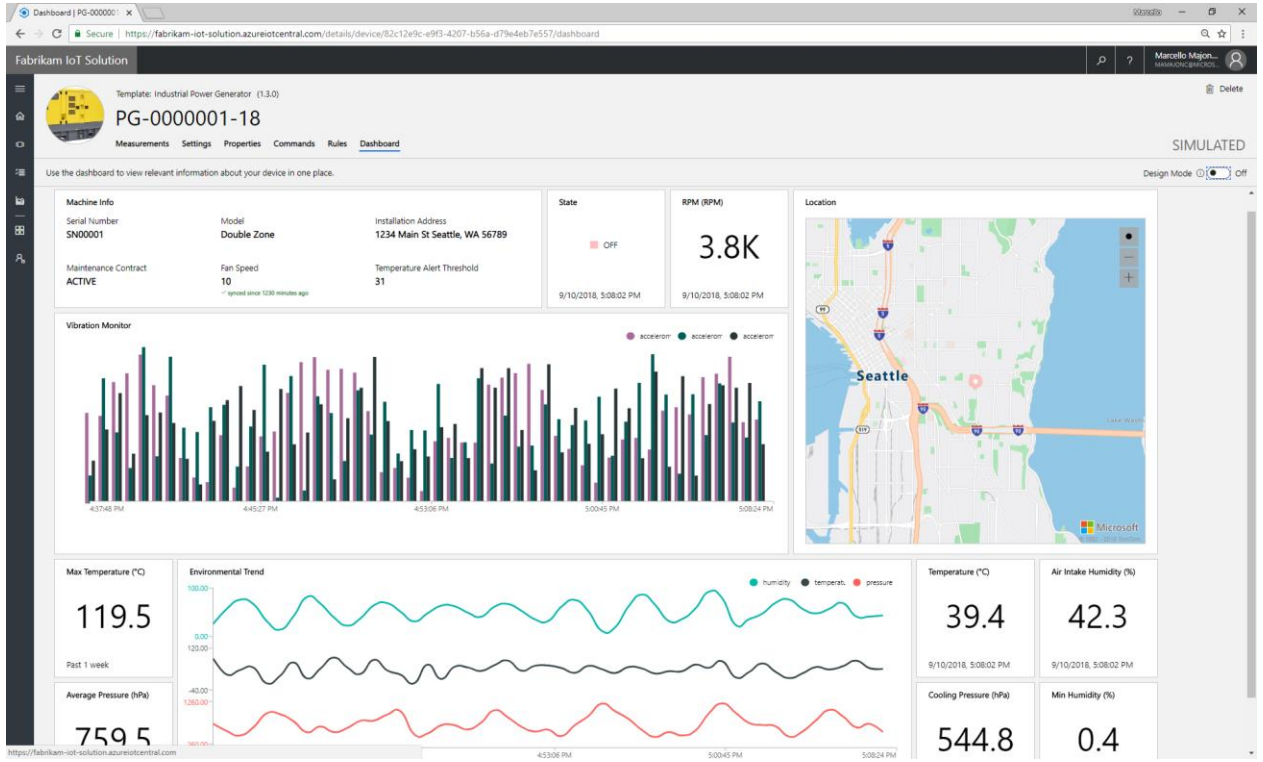
Fully managed SaaS solution

No cloud expertise required

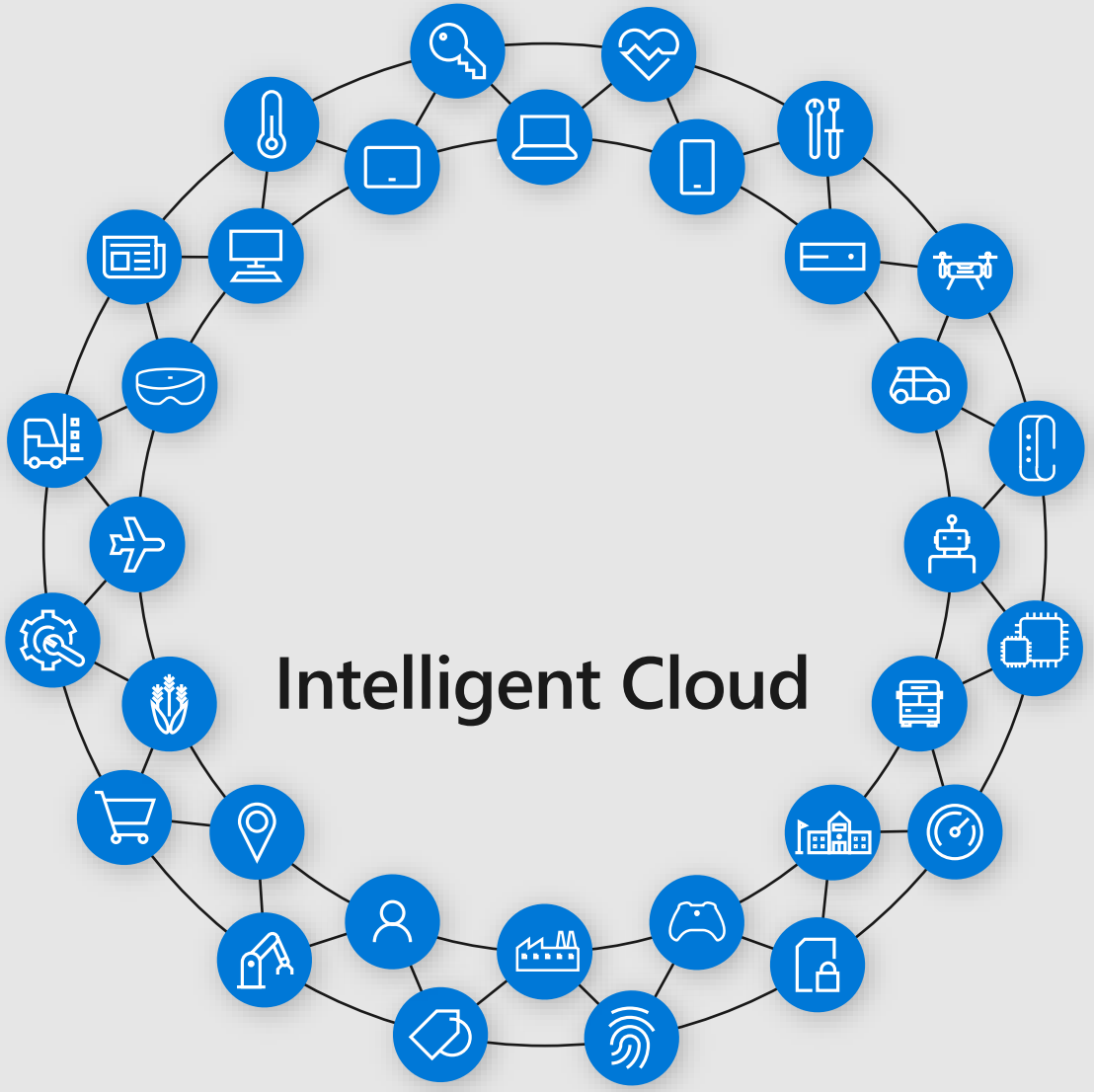
Built in security best practices

New extensibility features

Transparent and predictable per device pricing



Try today: http://azureiotcentral.com


Intelligent Cloud
Intelligent Edge

Smart buildings

Connected devices can securely control a building's operations.

Integrated window pane sensors

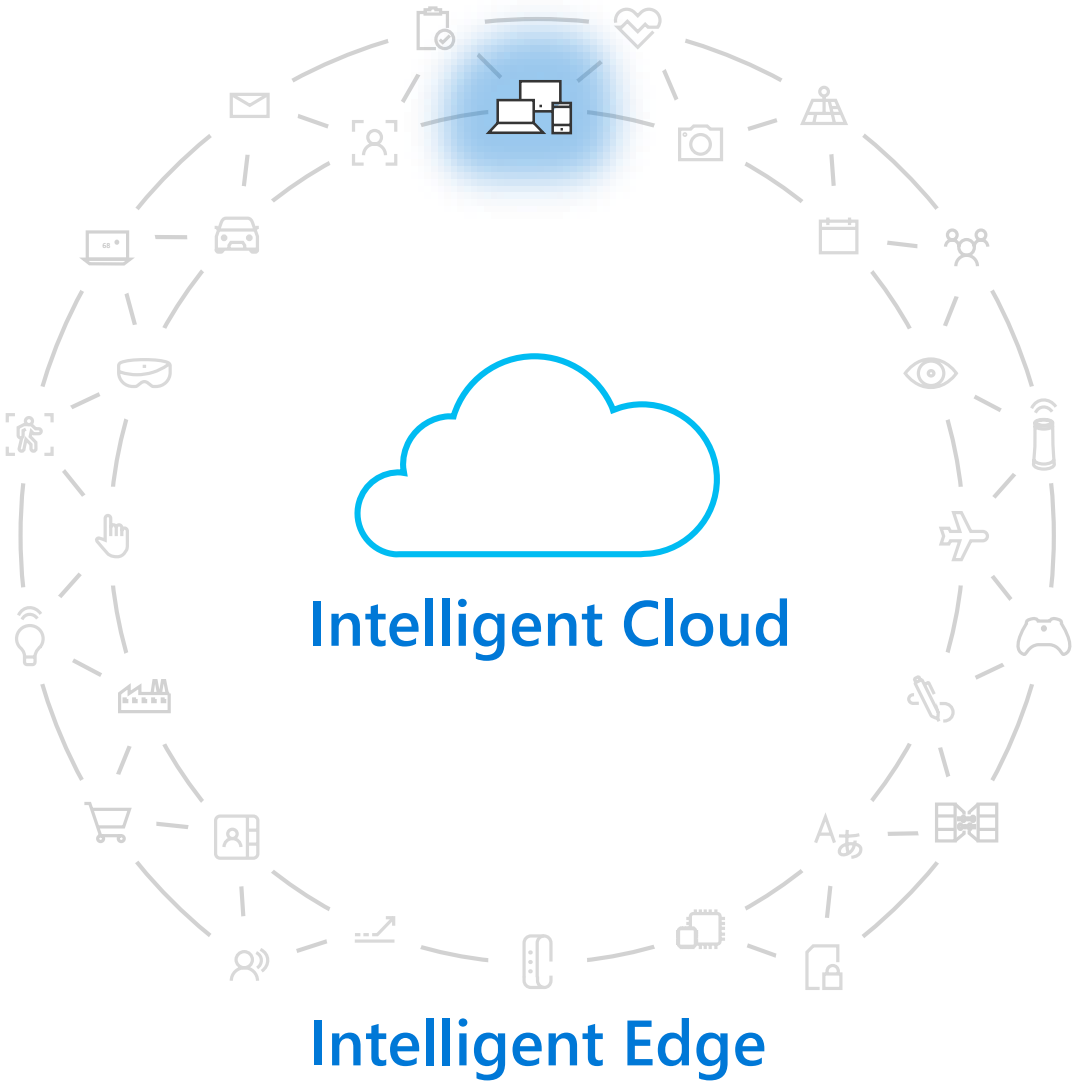
Smart door and window locks

HVAC systems

Indoor and outdoor lighting

Smart gas readers

Elevators



The Microsoft Campus Real Estate Portfolio

In 2012...

- Disparate applications and systems
- No ability to holistically manage our infrastructure and prioritize maintenance activities
- Labor-intensive reporting
- Two full-time employees running a manual maintenance program
- $60 million estimated cost to retrofit to integrated equipment

145 structures

Multiple building systems

58,400 housed heads

$55M annual utility spend

15M SF office & lab space

2M connection points

50-55 megawatt hour average

Software Defined Buildings Campus

EASIER SYSTEM COORDINATION

Improved technician efficiency with **32,300 work orders per quarter**

48% of faults are corrected within **60 seconds**

LOWER ENERGY CONSUMPTION

Forecasted energy savings of **10–11% Per Year**

REDUCED COST

Saved $2 million in its first year

Let’s secure the future.

SECURED FROM THE SILICON UP

with Azure IoT!

Microsoft