Microsoft

IoT Continuum:
Evolving Business

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GM
IoT Device Experience Team
Microsoft Asia

IoT in Action, 深圳, 2019年12月3日 —Event Agenda

高管主题演讲	Executive Keynote	9:30–10:15am
实施业务转型	Business Transformation In Action	10:15–11:00am
构建智能边缘，创建可扩展、可重复的解决方案	Architecting the Intelligent Edge to Create Scalable Repeatable Solutions	11:00–11:45am
交流午宴，下午	Lunch Networking Break	11:45–12:45pm
通过 Microsoft 的 IoT 智能边缘挖掘 IoT 的潜力	Unlocking IoT's Potential	12:45–1:45pm
开发物联网安全实践 持久创新	Developing an IoT Security Practice for Durable Innovation	1:45–2:15pm
合作夥伴案例研究: Haimo Technologies Group	Partner Case Study: Haimo Technologies Group	2:15-2:45pm
交流茶歇	Afternoon Networking Break	2:45-3:30pm
混合现实、人工智能、无人机和机器人	Evolving IoT with Mixed Reality, AI, Drone and Robotic Technology	3:30–4:00pm
合作夥伴案例研究: Envision	Partner Case Study: Envision	4:00-4:30pm
激活 Microsoft 资源和计划，以加快上市速度和联合销售	Activating Microsoft Resources & Programs to Accelerate Time to Market and Co-sell	4:30–5:00pm
商洽谈& 合作伙伴展位参观务	Partner-Customer Networking & Sponsored Partner Solution Showcase	全天 All day

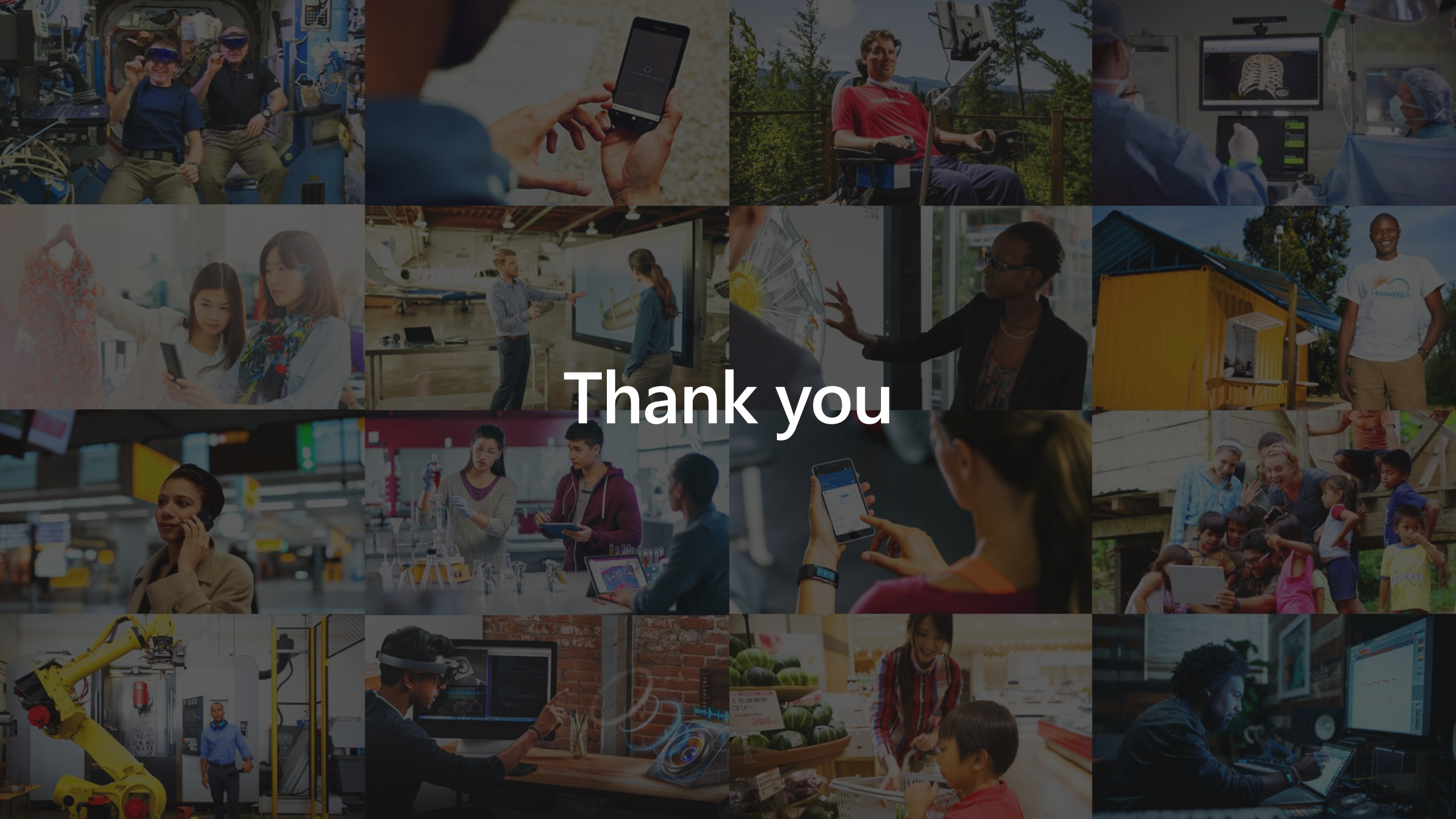
Our Goal

IoT Community

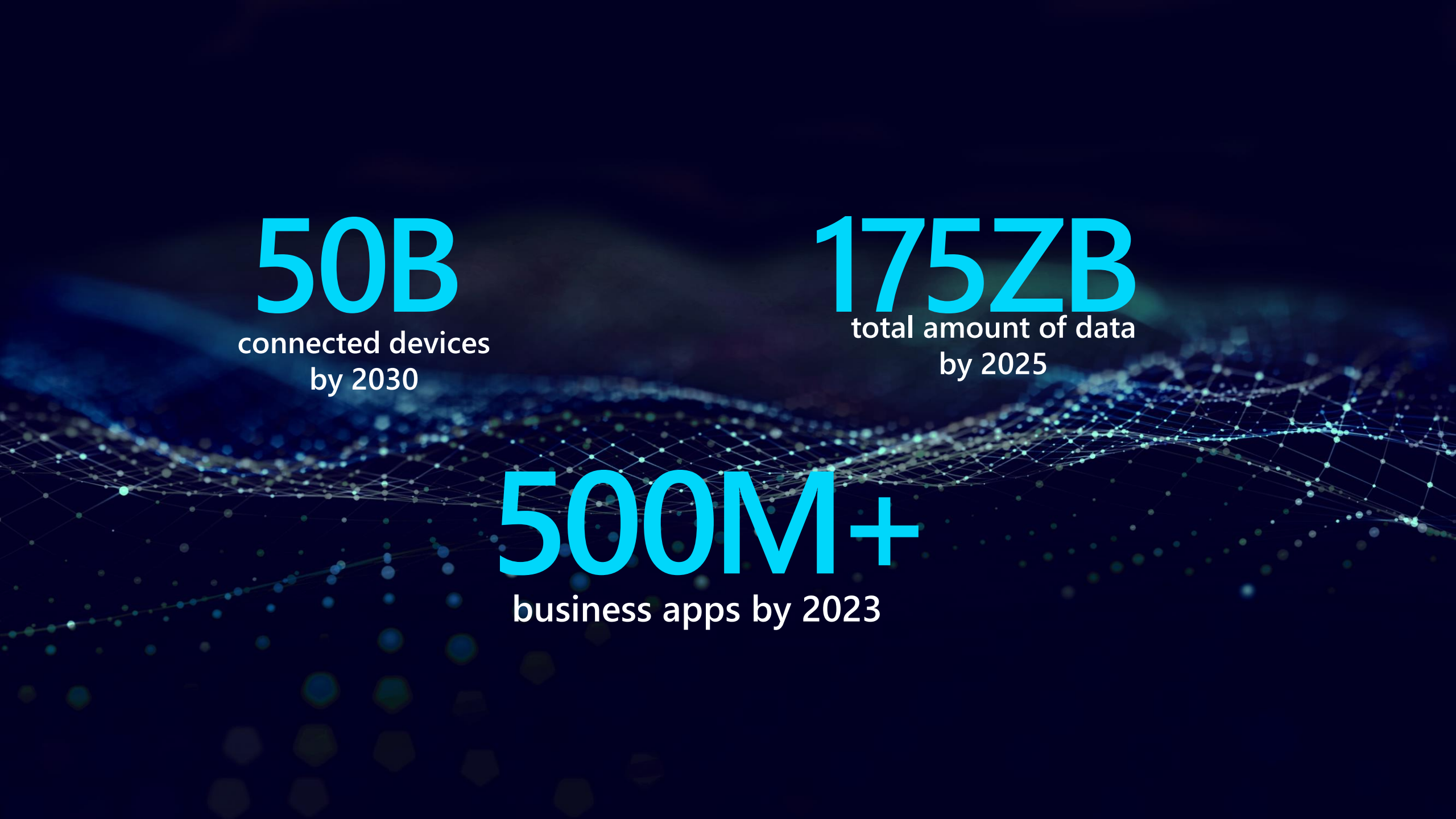
Partners

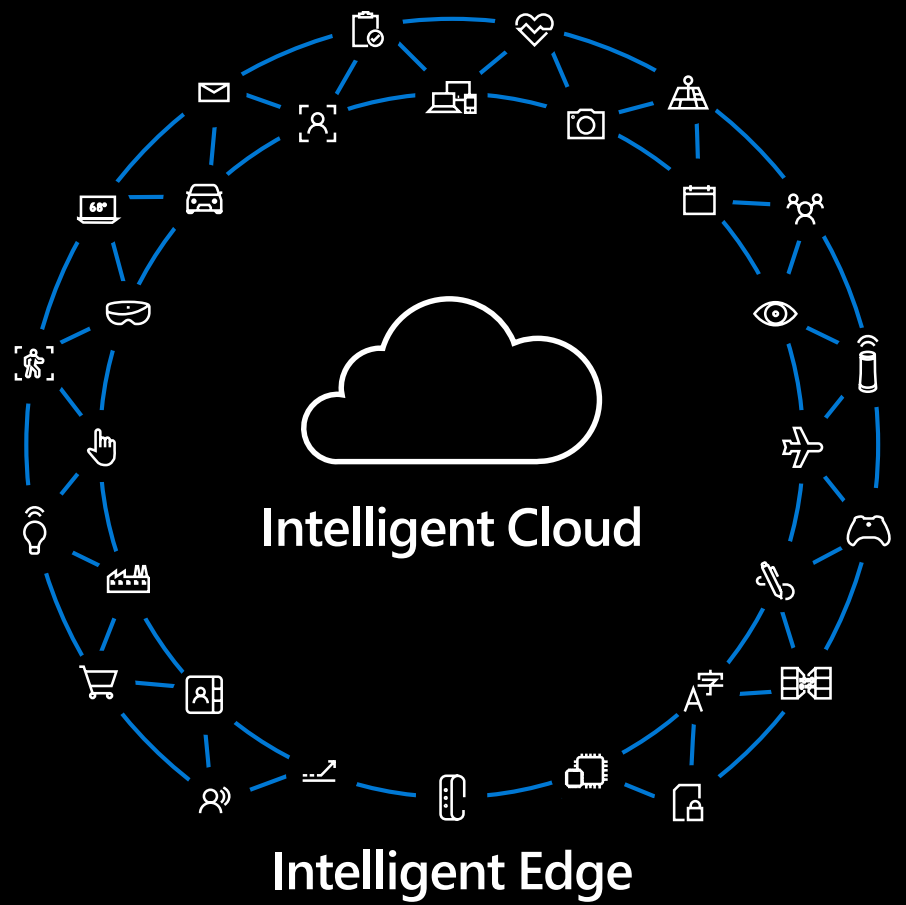
Technology

Our society & technology



Thank you


50B
connected devices
by 2030
175ZB
total amount of data
by 2025
500M+
business apps by 2023



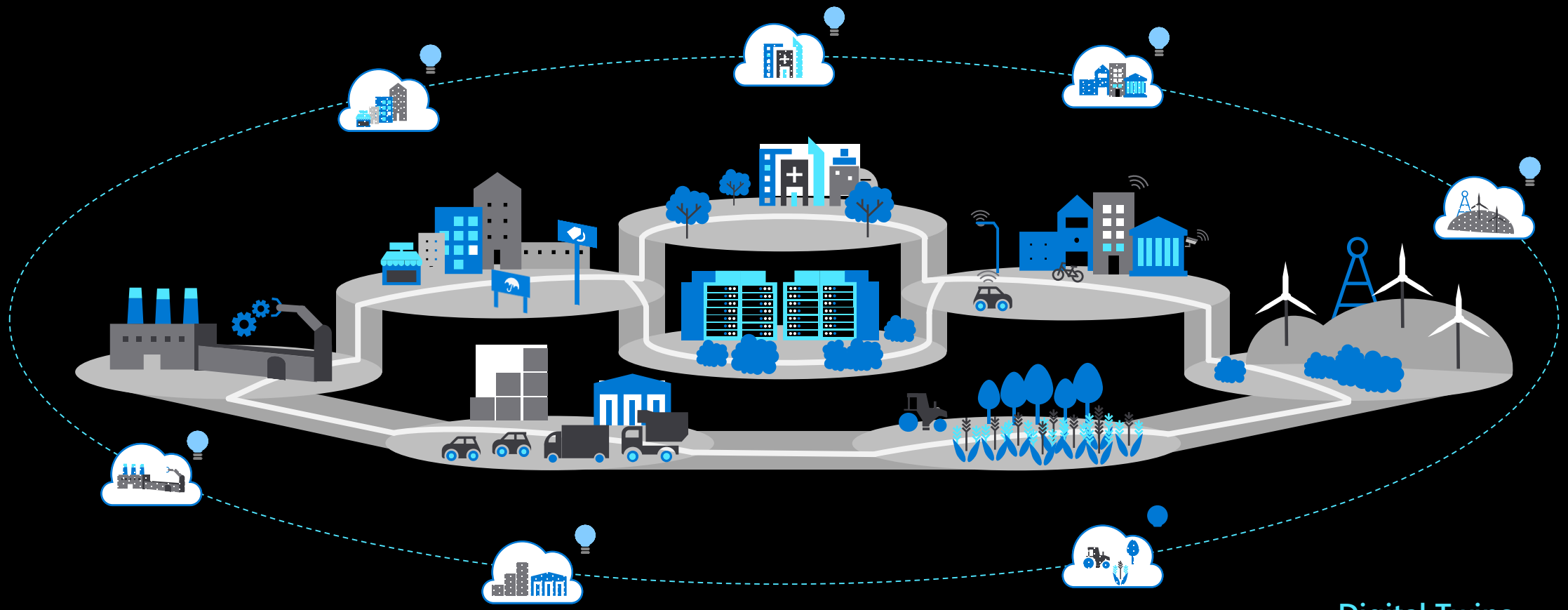
"Building applications for multi-device, multi-sense experiences is going to require a **very different form of computing architecture.**

That's the motivation for bringing together all of our systems and people.

Silicon in the edge to the silicon in the cloud architected as one workload that is distributed—that's the challenge in front of us."

—Satya Nadella, Q&A Session, April 2018

Innovations enabling new opportunities



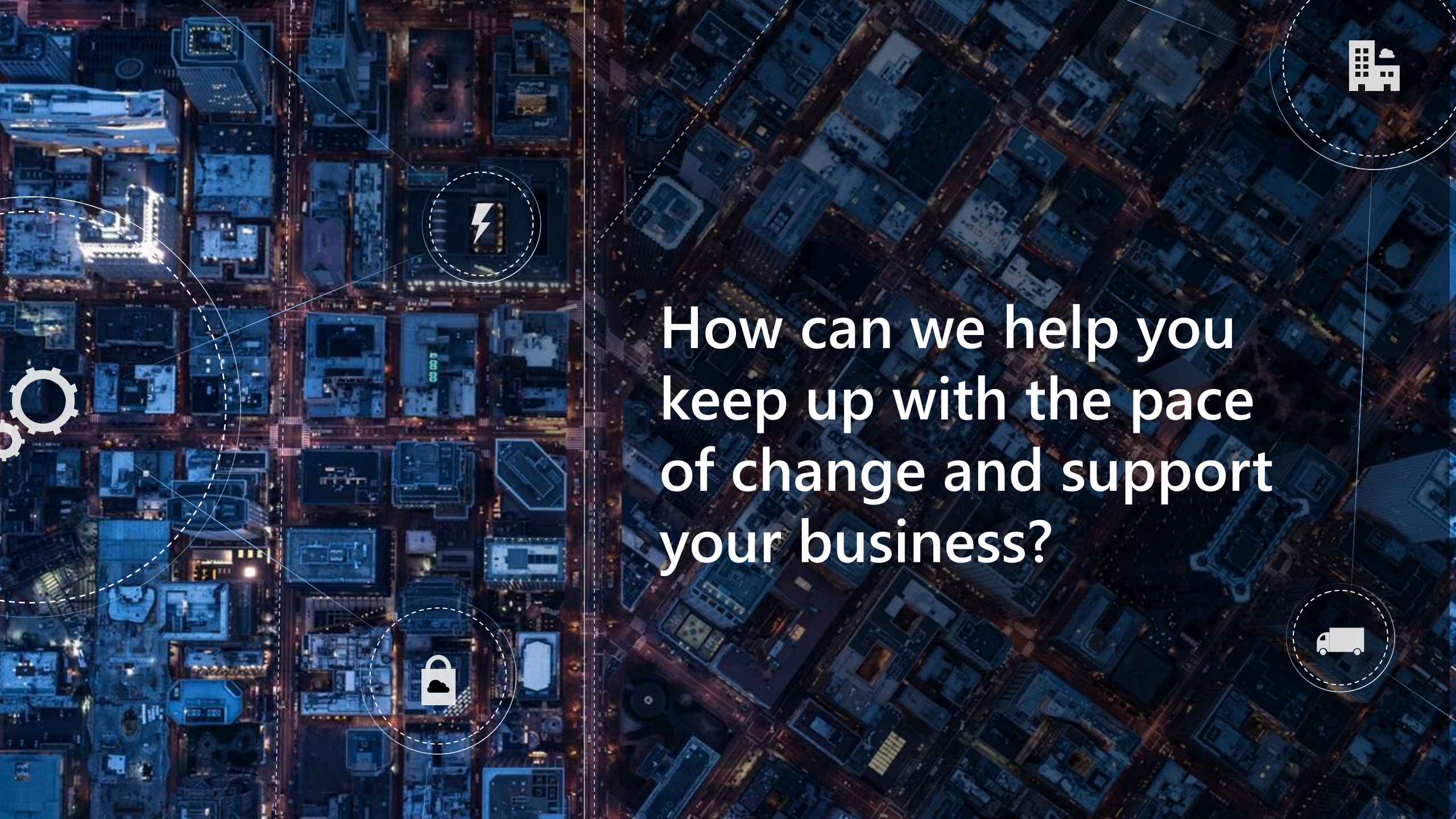
Cloud
Globally available, unlimited compute resources

IoT
Harnessing signals from sensors and devices, managed centrally by the cloud

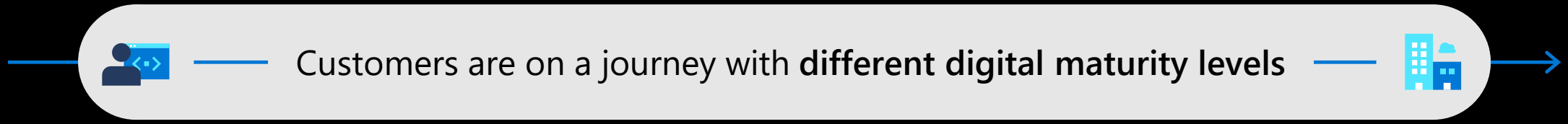
Edge
Intelligence offloaded from the cloud to IoT devices

AI
Breakthrough intelligence capabilities, in the cloud and on the edge

Digital Twins
Create living replicas of any physical environment, track the past and predict the future


How can we help you keep up with the pace of change and support your business?

Three emerging patterns of digital transformation



Build digital capabilities

Build digital businesses

Modernization

Foundation for Digital Transformation

Common initiatives:
- Digital workplaces
- Digital customer experiences
- Transforming the infrastructure
- Application modernization

Industry & Horizontal

Solution-centric opportunities

Industry Solution examples:
- Predictive Maintenance, Customer Insights, Citizen Services

Horizontal Solution examples:
- Digital Marketing, Employee Self-Service, Smart Buildings, Security & Surveillance

Transformational

Reimagine their businesses

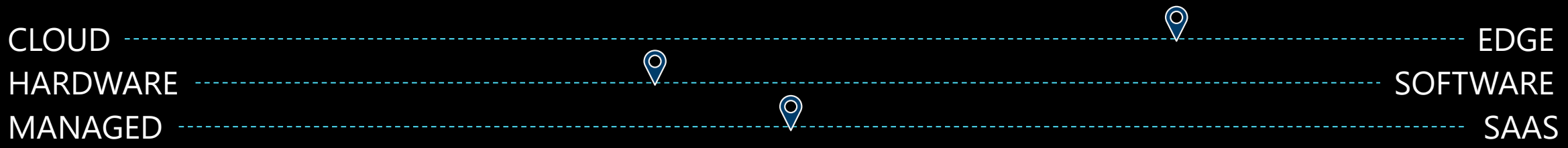
CXO sponsorship

Digital Maturity Model assessment

Comprehensive **program of change**

Evolves into new **commercial business models**

Wherever you are on the IoT journey:



Microsoft has developed a set of secure, scalable offerings to help companies take advantage of IoT's powerful capabilities.

Grow securely and at scale with a trusted IoT leader

Get started quickly by leveraging a fully managed solution or build with templates for common IoT scenarios

Predictable costs to fit different needs and levels

Microsoft's comprehensive IoT product portfolio

Accelerating solution build and operate

Azure Security Center for IoT

Azure IoT priority verticals

Manufacturing | Retail | Agriculture | Energy | Smart Cities | Healthcare | Transportation

Azure IoT solutions

- Azure IoT Central (SaaS)
- Azure IoT reference architecture and accelerators (PaaS)
- Dynamics Connected Field Service (SaaS)

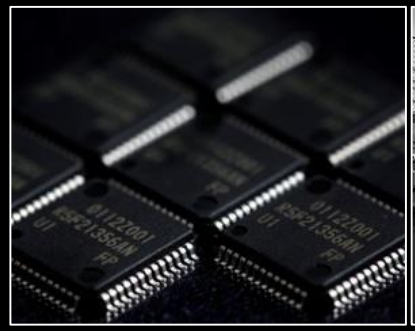
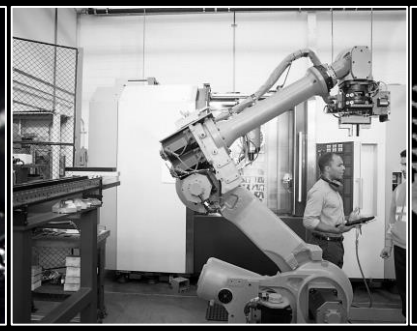
Azure Services for IoT

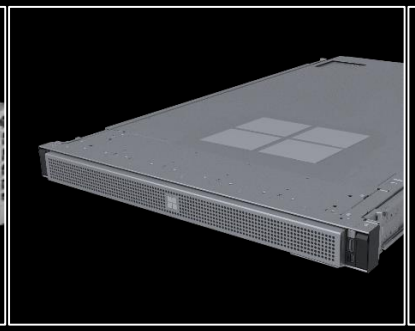
- Azure IoT Hub
- Azure IoT Hub Device Provisioning Service
- Azure Active Directory
- Azure AI
- Azure Cognitive Services
- Azure Cosmos DB
- Azure Data Share
- Azure DevOps
- Azure Digital Twins
- Azure Logic Apps
- Azure Maps
- Azure ML
- Azure Monitor
- Azure Spatial Anchors
- Azure Stream Analytics
- Azure Time Series Insights
- Power BI

IoT and Edge device support

- Azure IoT Device SDK
- Azure IoT Edge
- Azure Sphere
- Windows IoT
- Azure Certified for IoT device catalog
- Azure Cognitive Services
- Azure Functions
- Azure ML
- Azure SQL
- Azure Storage
- Azure Stream Analytics
- Data Box Edge

The most comprehensive IoT and Edge offerings in the market



Devices + Sensors | **Sensors to interactive** | **Integrated platform** | **Global scale processing**

IoT devices
Azure IoT Device SDK

Endpoint devices such as appliances, vehicles, or factory machines that connect, interact, and exchange data

1,300+ devices, 300+ partners—all certified to work great with Azure IoT Services

Cross-platform and open source: Windows IoT, Linux, RTOSs, ThreadX and more

Device security
Azure Sphere

Integrated hardware, software, and cloud services work seamlessly together to deliver security by default

Deployment options to securely connect existing equipment and build security into new edge devices

Over 10 Years of security and OS updates delivered directly to each device by Microsoft

Edge devices
Azure IoT Edge

Devices that aggregate, process, and provide gateway capabilities for IoT endpoints

Deploy and manage Azure Services in containers on any IoT device

AI, Azure ML, Azure Stream Analytics, and more

Cross-platform and open source: Windows IoT, Linux

Edge appliances
Azure Data Box Edge

Integrated appliances that provide a subset of cloud edge roles, such as ML-inferencing

Data Box Edge: AI-enabled, storage, and compute Azure Edge appliance

Data Box: Offline, ruggedized data transport, 100 TB–1 PB

On-premises platform
Azure Stack

Scalable solutions that provide a full cloud stack, including IaaS and PaaS capabilities

Edge and disconnected scenarios

Regulatory requirements

Cloud app model on-premises

Hyperscale cloud
Edge Regions

First-party cloud regions

Full range hyperscale cloud services

Tiered service availability: Heroes > Hubs > Satellites

Open source-based services and tools

Most specialization — Full spectrum of Cloud + Edge form factors — Fewest form factors

Fewest services — Intentional and appropriate Azure service availability — Most services

Three well-composed entry points for IoT solutions

Azure Security Center for IoT

Azure IoT Central

Fully managed IoT app platform

Azure Digital Twins

Model and interact with any physical environment, track the past and predict the future

Azure Services for IoT

- Azure IoT Hub
- Azure IoT Hub Device Provisioning Service
- Azure Digital Twins, Azure Maps
- Azure Time Series Insights

IoT & Edge Device Support

- Azure Sphere
- Azure IoT Device SDK
- Windows IoT, Data Box Edge
- Azure Certified for IoT—Device Catalog

- Azure Stream Analytics
- Azure Cosmos DB
- Azure AI
- Azure Cognitive Services
- Azure ML
- Azure IoT Edge
- Azure Stream Analytics
- Azure ML

- Azure Logic Apps
- Azure Active Directory
- Azure Monitor
- Azure DevOps, Power BI
- Azure SQL
- Azure Functions
- Azure Cognitive Services

IoT partner value chain

IoT presents a unique opportunity to bring together multi-disciplinary partners

End points

Silicon/Chip Manufacturers

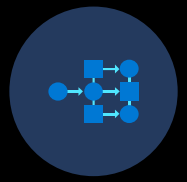
Gateway Manufacturers

M2M Modules

Device Manufacturers

Traditional OEMs

Device SIs



Security

Software

Hardware

Regulatory experts

Privacy

Connectivity

Mobile Network Operators

Mobile Virtual Network Operators

Channel Development Providers

Application Enablement Platform ISVs

Services

Solution Architecture

Solution Integrators

Service Providers

Presentation

Dashboarding

Big Data

Business consultants

Consultants

Advisors

Professional Services

Industry Influencers

Distributors

Aggregators

Scale through VARs

Developers

ISV

In-house

Regulators

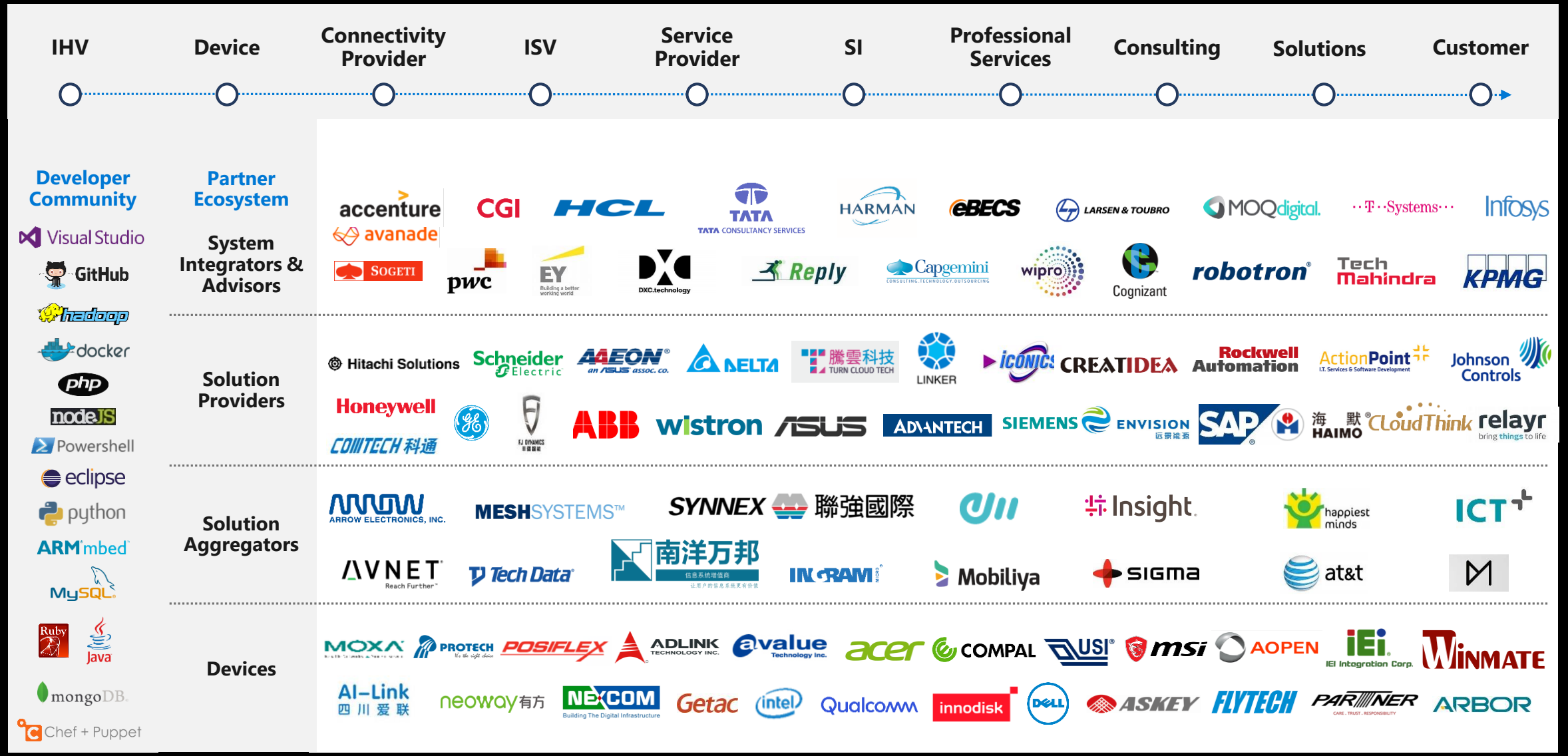
Standards organizations

Industry Bodies

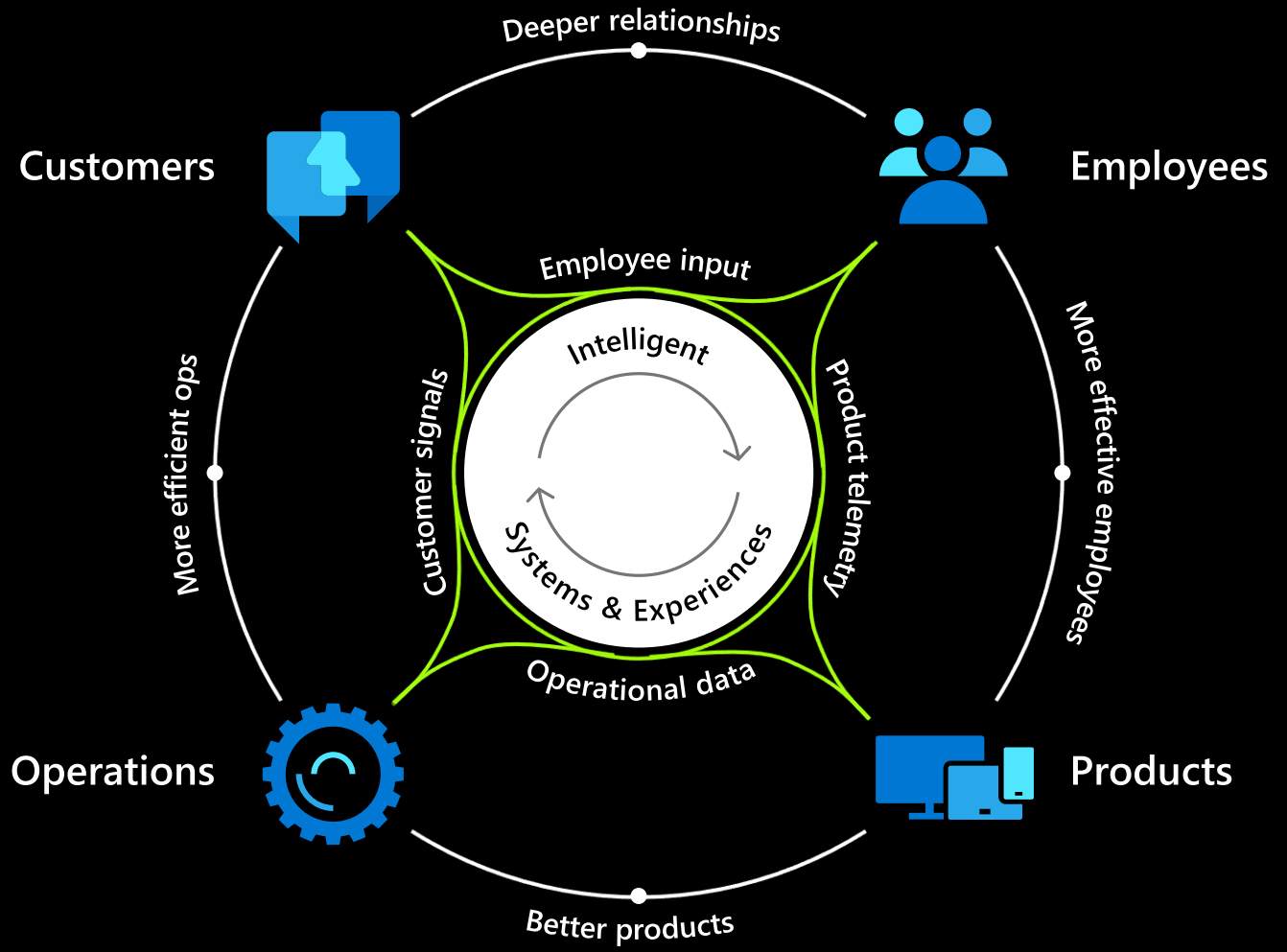
Accreditation organizations

Auditors

IoT ecosystem momentum



Making IoT smarter



IoT vertical focus

Manufacturing

Field Service

Safety & Security

Process & Quality

Factory Automation

Retail

Space & Assortment

Inventory Mgmt.

Personalization

Healthcare

Patient Monitoring

Research

Supply Chain

Operation Efficiency

Energy

Oil & Gas

Utilities

Power Plants

Environment Sensors

Smart City/ Buildings

Security & Surveillance

Monitoring & Safety

Energy Mgmt.

Agriculture

Soil Sensors

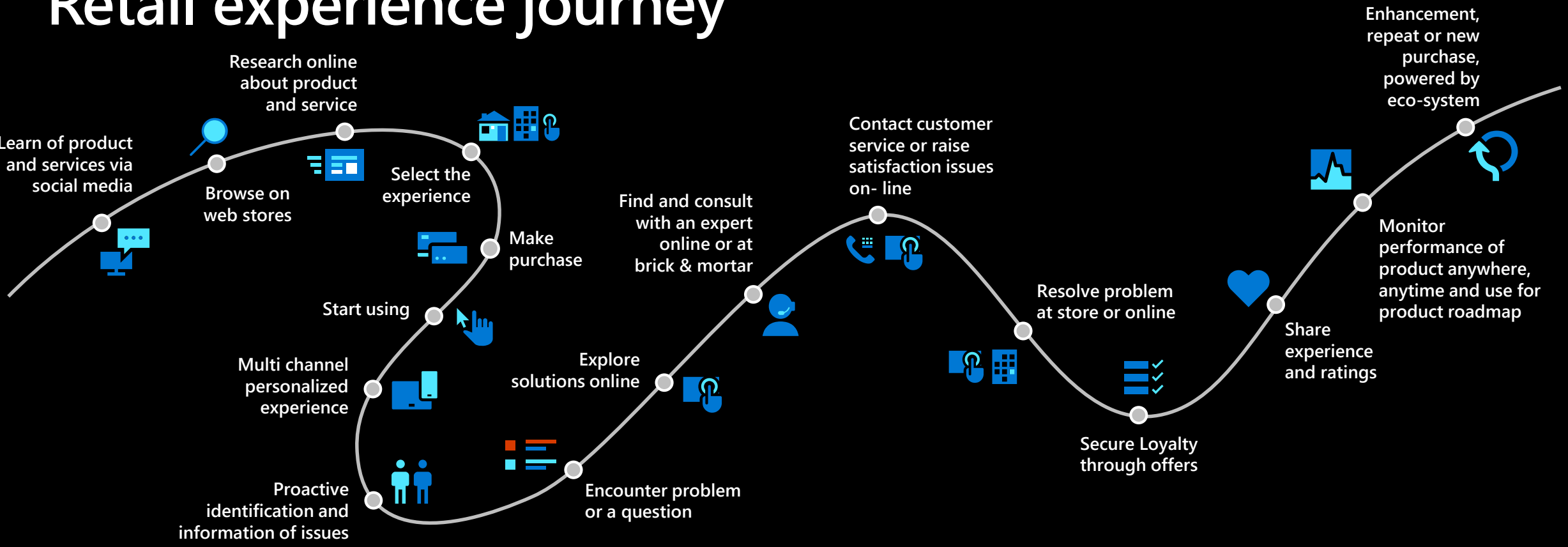
Livestock

Equipment

Supply Chain

Connectivity

Retail experience journey



Digital Transformation

Pre-purchase

Personalized Offers & Updates

Purchase

Enhance Customer Experience

Post-purchase

Create Brand Loyalty Learn & Act

Customer momentum

Microsoft Azure

So what's stopping you from making *things* happen?

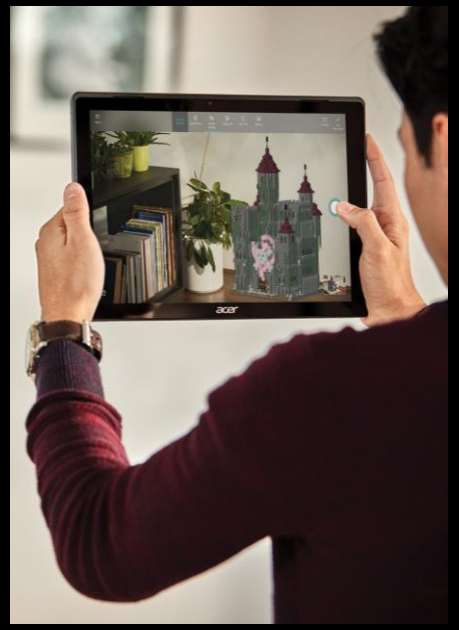
Microsoft

新生态，新机遇
微软助力
中国物联网发展

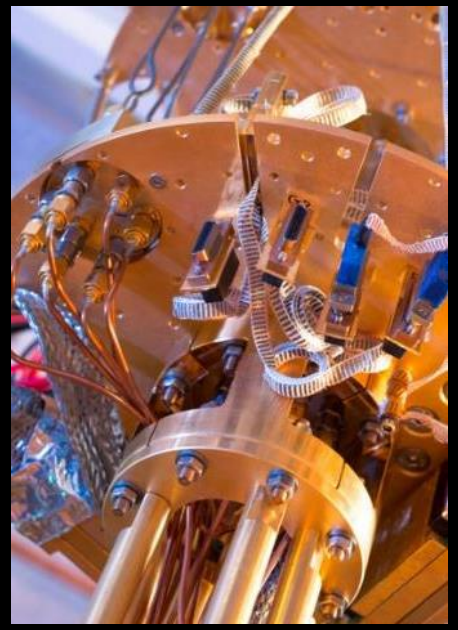
Horace Chow
微软中国首席运营官

这是一个运行在软件+物联网上的世界
The world runs on software + IoT

IoT as become building blocks for future business
物联网已成为构建未来商业的基石

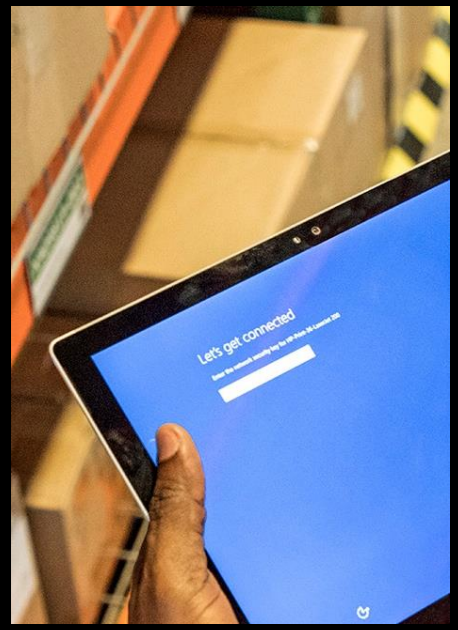


混合现实
Mixed reality



量子计算
Quantum computing

人工智能
Artificial intelligence

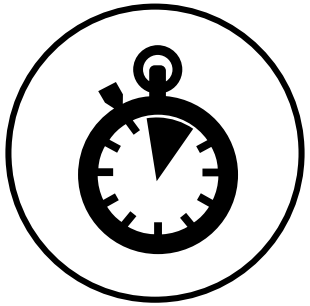


区块链
Blockchain

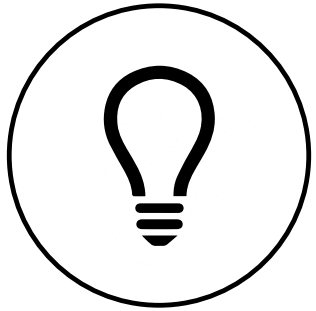
边缘计算
Edge Computing

但是，IoT的成功研发及落地其实并没有那么容易

Difficult to maintain cohesive security
整体系统安全性的困难



Time-consuming to get started
项目起步时间太长

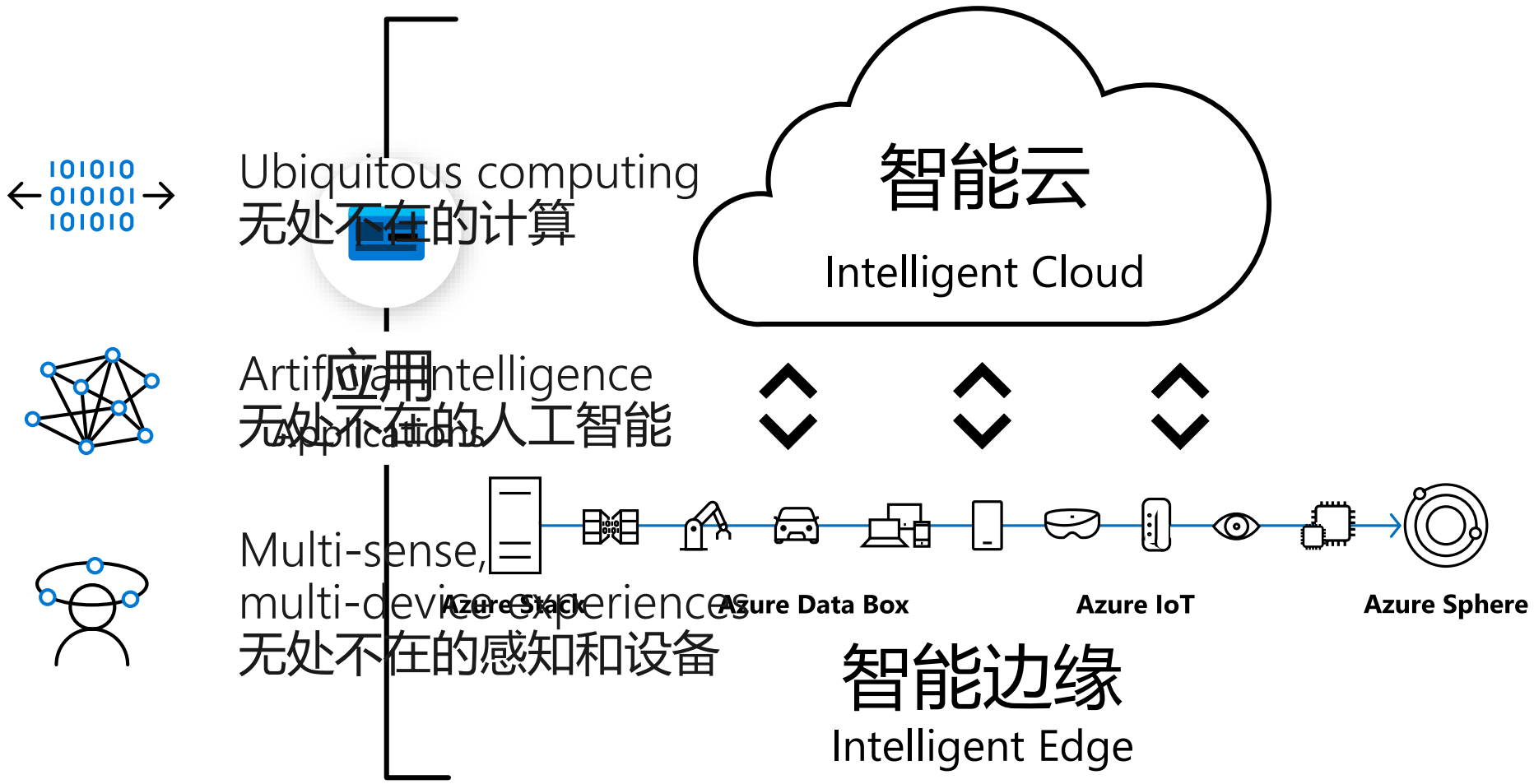


Incompatible with existing infrastructure
与现有基础设施的集成度

Challenging to scale over time
规模化部署比较挑战

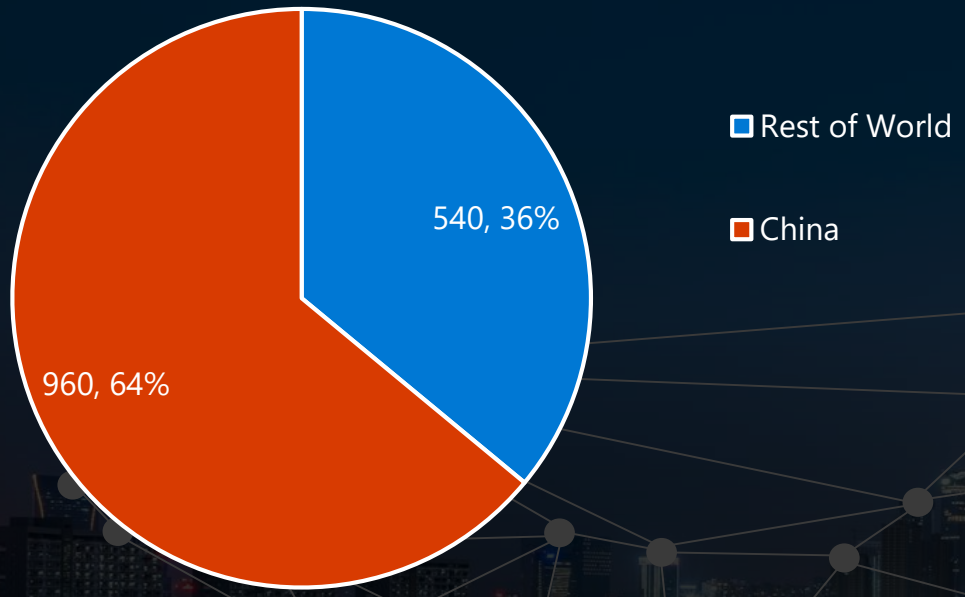
Difficult to integrate with business processes | 难以和企业流程紧密集成

微软助力简化IoT研发及落地



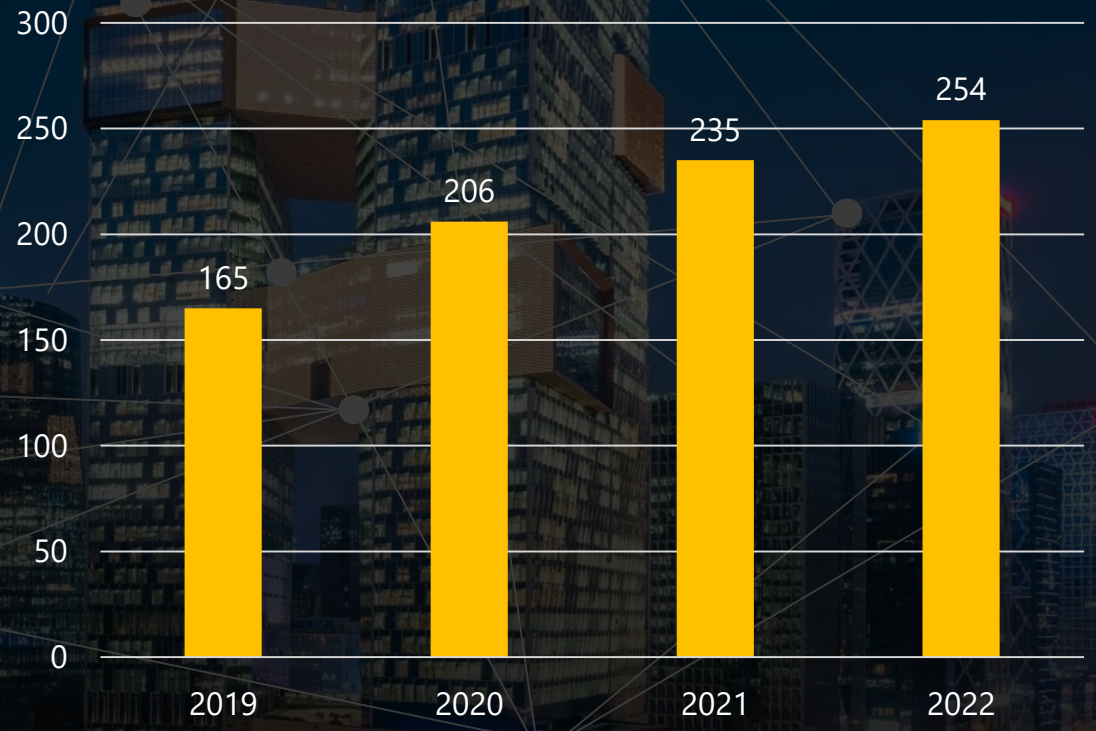
中国已引领全球物联网市场发展

全球移动物联网设备数量 （百万）



Source: 1. Business Sweden, China; 2. GSMA, 2019 July

2017-2022中国物联网市场支出预期 (美金，亿)



2019年微软持续加大对中国物联网的投入：

三云落地

Azure + Office 365 + Dynamics 365

均在中国境内落地运营

实验室落地

微软人工智能及物联网实验室在5月份成功落地上海

深化企业合作

与万科，上海仪电，科勒，AO史密斯等传统企业开展深入IoT合作

构建行业生态

在零售，制造，智慧空间行业打造合作伙伴生态系统

微软智能云：繁荣云生态

90% Office
新增中国客户
选择Office 365云服务

12万+
中国企业用户选择 Azure

25%
SQL Server新增中国客户
首选云托管

17,000+
中国市场云合作伙伴

180万+
Office 365
中国付费用户

TOP 4
中国前四大手机企业
采用Azure公有云

15万
中国开发者使用
微软智能云和AIoT

95% 全球
“财富500强”
企业采用
微软云服务

3 of 5
全球前五大智能手
机厂商中三大品牌
选择微软云

50%+
Dynamics全球
业务采用灵活的
混合云部署

2,500+
大中华区企业
采用微软人工智
能服务

10,000+ “Azure 知识产权保护计划 (AIPA)”
为全球和中国Azure用户
提供超过1万项微软专利 “保护伞”

Microsoft
AI & IoT Insider Lab

微软人工智能与物联网实验室
于2019年5月成功落地中国

与实验室合作的客户/合作伙伴

3M, Nestlé, CATERPILLAR, KOHLER, OTIS, MARS Drinks, BOEING, LEONI, tyco, BAYER, AIR PRODUCTS, P&G, PFEIFFER VACUUM, COLFAX, Telemotive AG a company of Magna, LineView SOLUTIONS, DOVER FUELING SOLUTIONS, Abbott, VALE, TRELLEBORG, ptc, HCSS, MVG, BearingPoint, STANLEY, TRELLEBORG, DUPONT, UEI, Daimler TSS, AIRMAP, FUJITSU, NTT DATA, M-KOPA SOLAR, ptl, TRELLEBORG, sunculture, Henkel, AmeriGas America's Propane Company

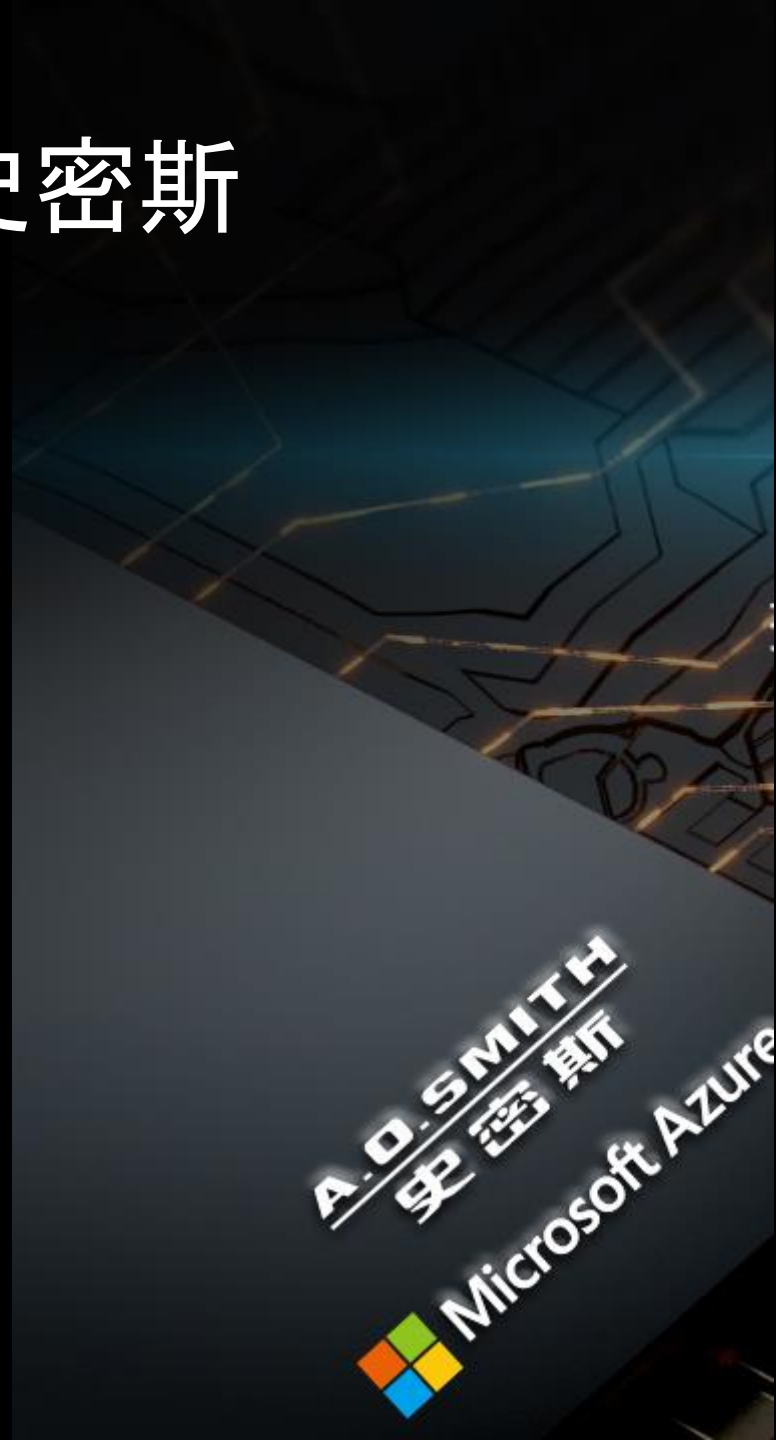
感谢加入微软
物联网生态系统
Thank you!

微软中国物联网+云客户案例： A.O.史密斯

借助微软物联网和Dynamics CRM, 打造适配业务需求及未来发展的解决方案，提高服务人员工作的移动性和智能性，全面地提升了售后服务的质量

行业
家电零售消费品行业

微软解决方案
Azure IoT
Dynamics CRM



与微软合作，共创数字化物联网未来

Partner with Microsoft on your IoT Journey

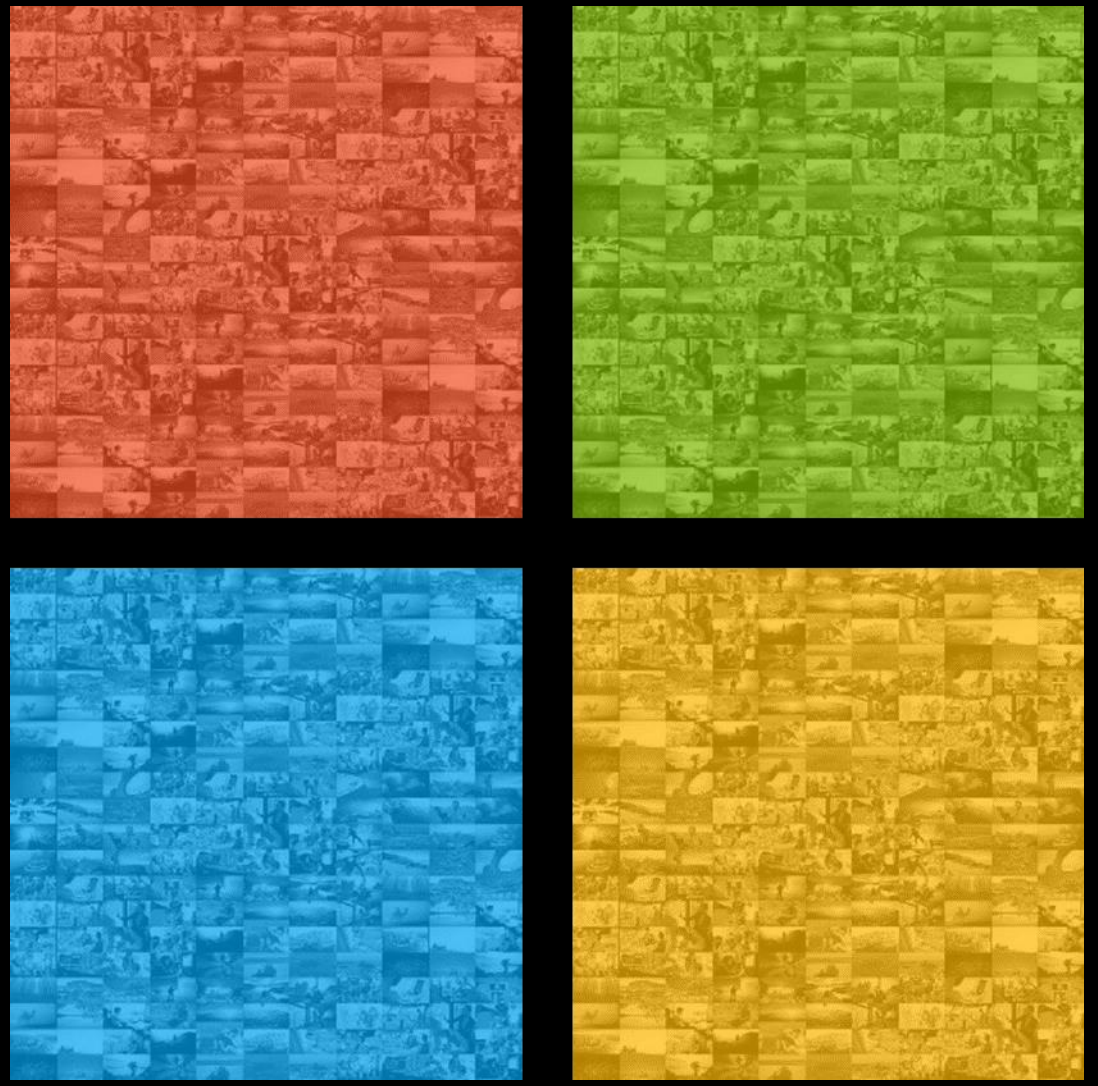
Go Global

Go China

全球合作伙伴生态系统支持

Microsoft mission

Empower every person and every organization on the planet to achieve more



Microsoft

IoT in Action

#IoTinActionMS