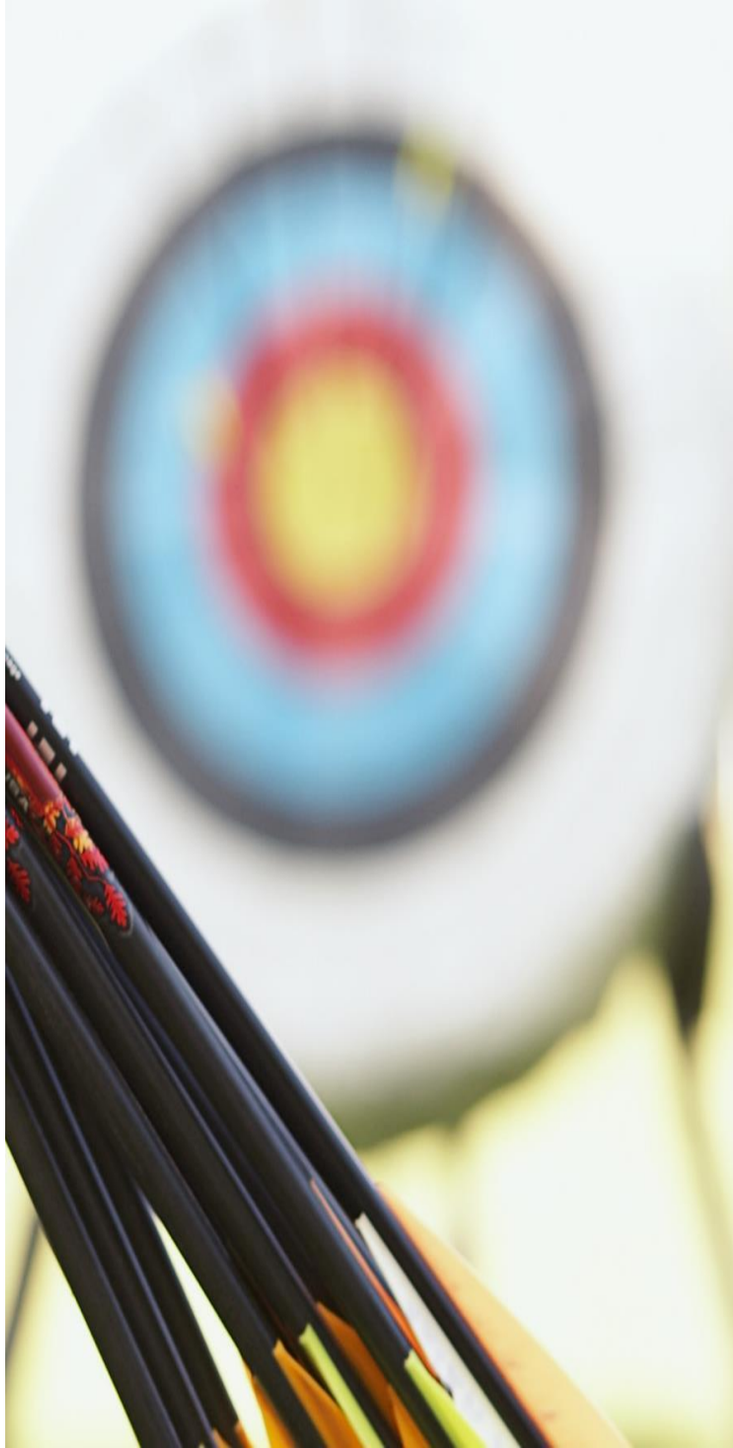
Windows Tech Series

Connecting Windows IoT Devices and Solutions

Windows

Objectives

- Review Windows 10 IoT connectivity support
- Describe Windows 10 IoT AllJoyn
- Describe Windows 10 IoT cloud connectivity

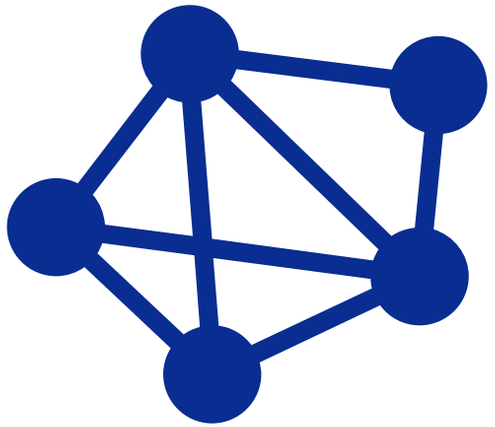


Introduction to Windows IoT Connectivity

Latest connectivity options

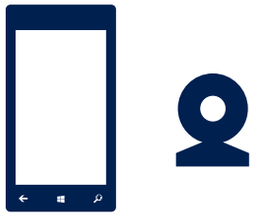
Windows 10 IoT includes extensive options for connecting devices:

- Ethernet, including Ethernet over USB
- Mobile Broadband – MBB USB Class driver, industry connectivity support
- Wi-Fi, Wi-Fi Direct, Bluetooth, BTLE



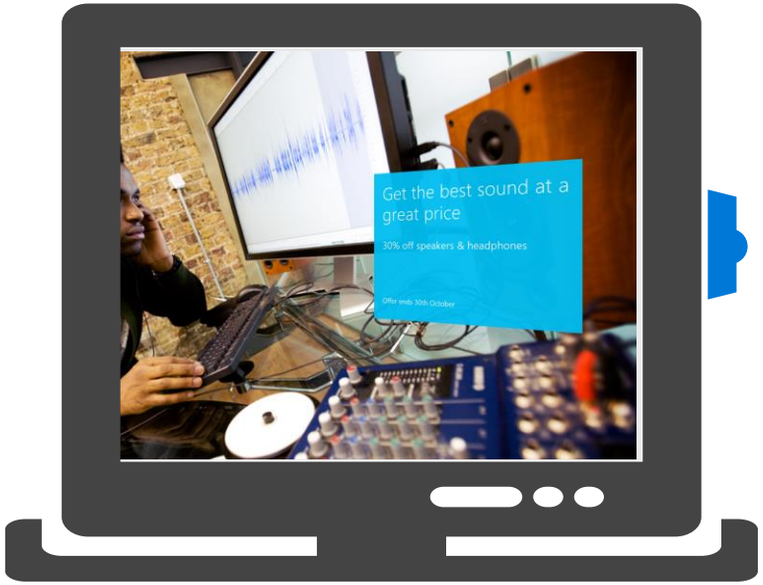
Interoperability across devices

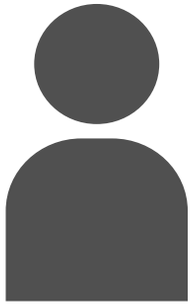
- AllJoyn integrated into all Windows 10 IoT devices



- Easily create Universal Windows Apps for AllJoyn-enabled devices

Access to sensor hardware





Use Universal Windows apps to easily integrate and communicate to sensors, microcontrollers and other peripherals

Seamless connectivity to Microsoft Azure

- Cloud connected to integrate and transform business

- Windows 10 IoT Core platform Azure Certified for IoT

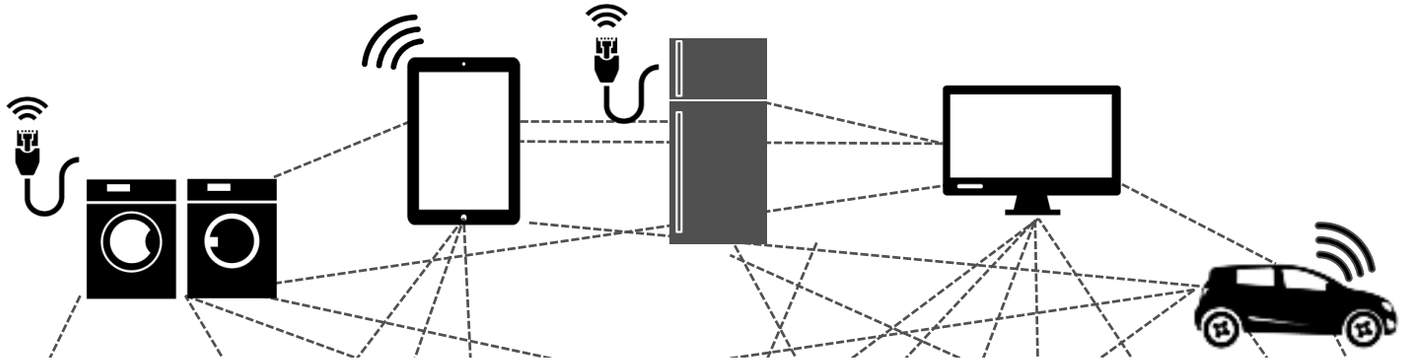
Anytime, anywhere, remote access

- Application specific VPN access
- Always-on connectivity
- Integrated experience across devices
- Expanded manageability options
- Available for third-party VPN providers
- Store-based app distribution

Universal Apps only
Windows 10 IoT Enterprise only

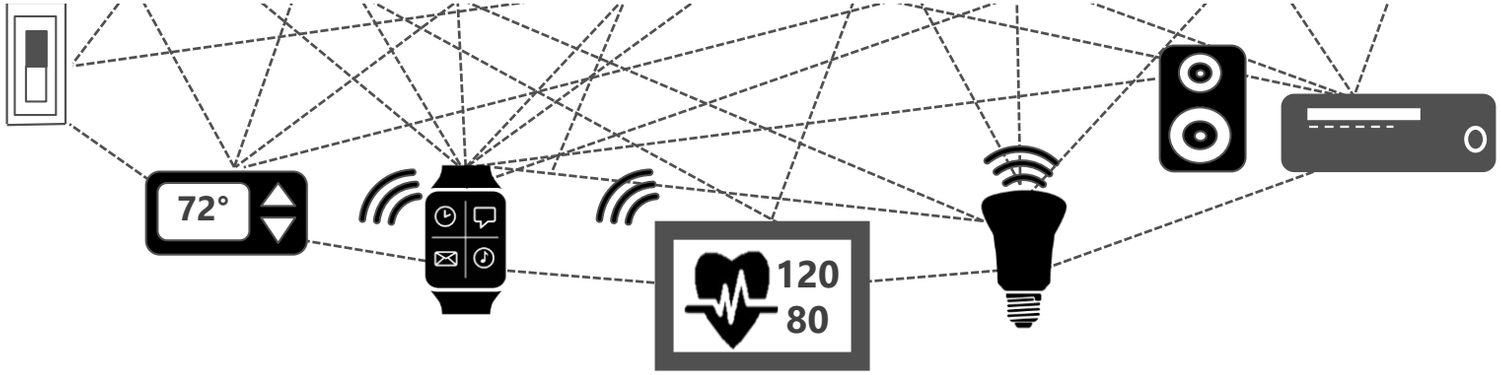
Windows 10 IoT AllJoyn

Interoperability across devices – AllJoyn



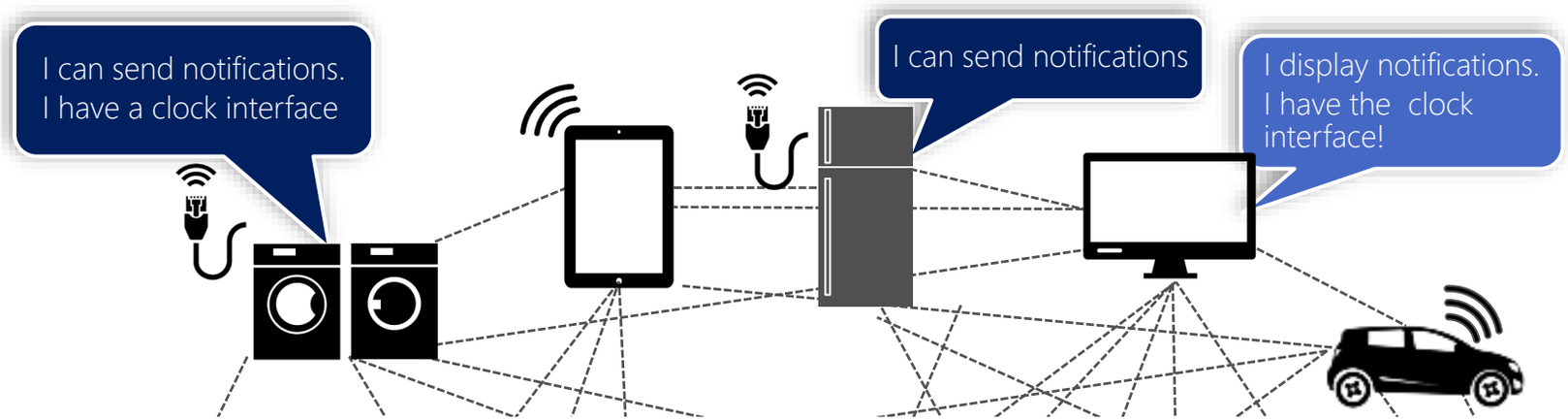
Your Devices Work Together

Across Protocol and Ecosystem Barriers



Interoperability across devices – AllJoyn

- Discovery
- Security
- Management
- Interoperability
- Open Source
- Cross Platform



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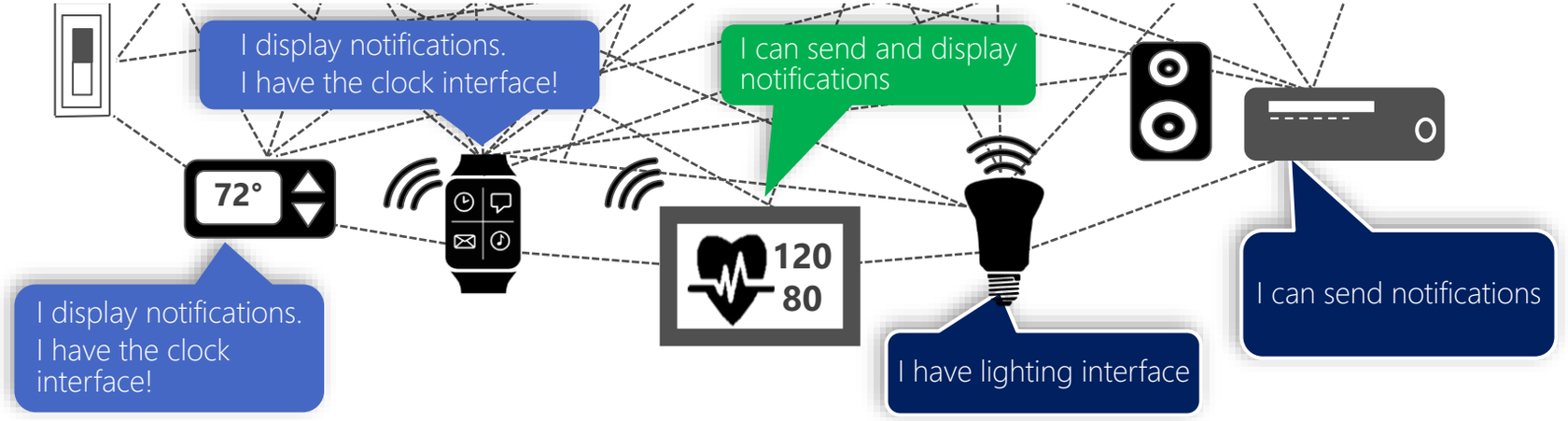
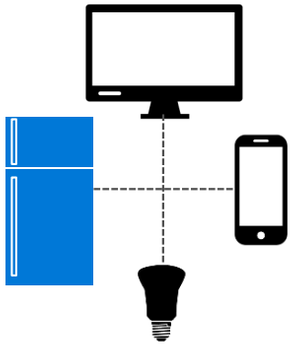
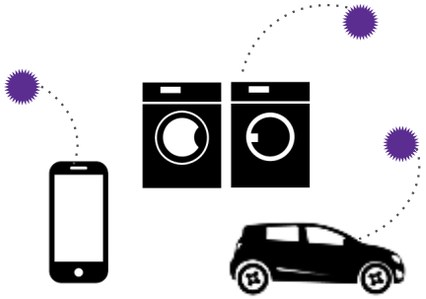
Across Protocol and Ecosystem Barriers



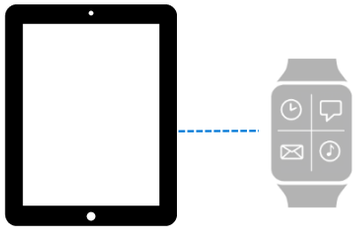
Challenges solved by AllJoyn



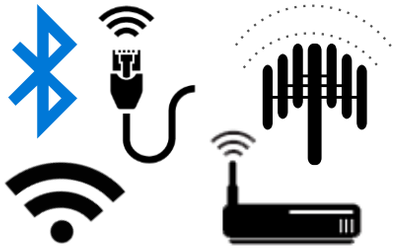
DISCOVER
nearby friendly devices



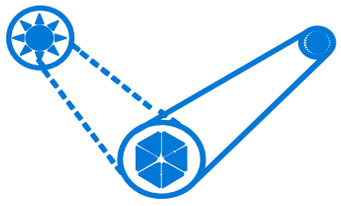
IDENTIFY
services running
on those devices



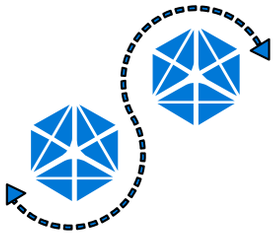
ADAPT
to devices coming
and going



MANAGE
diverse
transports



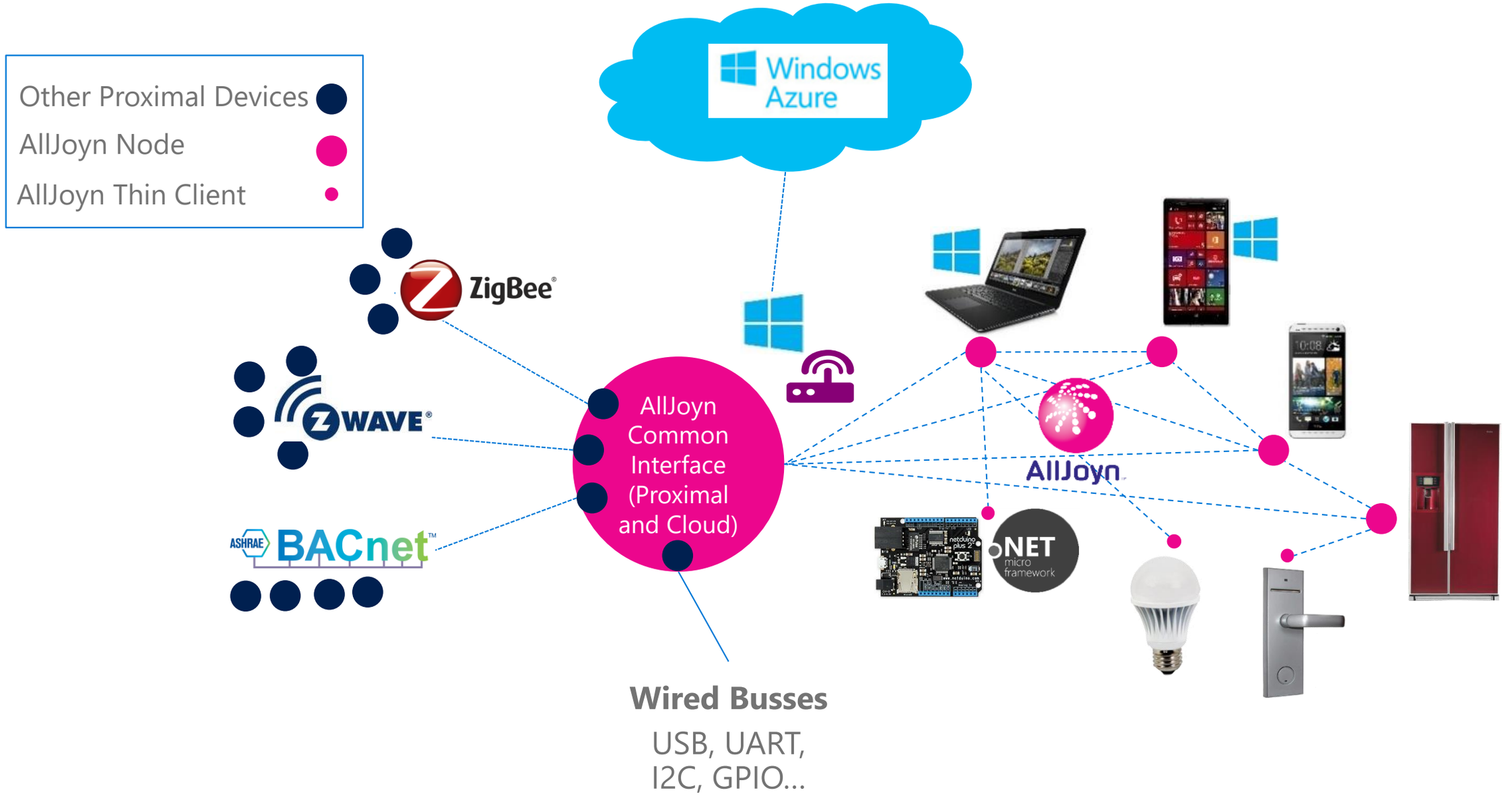
INTEROPERATE
across different OSs



EXCHANGE
information and
services

SECURE
against nearby bad actors

Windows 10 IoT AllJoyn device network



Cloud Connectivity

Azure IoT Suite

Connect and scale with efficiency

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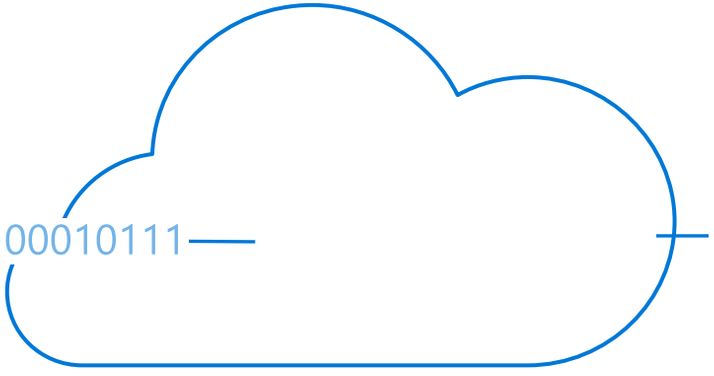
Windows I0 IoT

Analyze and act on new data



Analytics

Device Registry

Rules and Actions

Dashboards and Visualization

Integrate and transform business processes

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SAP salesforce Microsoft Dynamics

ORACLE IBM DB2 WebSphere

Informix. software twitter Office 365

Microsoft Azure IoT services

Devices	Device Connectivity	Storage	Analytics	Presentation and Action
	Event Hubs	SQL Database	Machine Learning	App Service
	Service Bus	Table/Blob Storage	Stream Analytics	Power BI
	External Data Sources	DocumentDB	HDInsight	Notification Hubs
		External Data Sources	Data Factory	Mobile Services
				BizTalk Services

Microsoft Azure Certified for IoT

Program overview

- Showcases partners with pre-tested offerings that easily connect to Microsoft Azure IoT solutions
- Guides businesses to partners who can help jump-start IoT projects

Why certify?

Extend your reach to new customers

Get certified with ease

Work with a leader in IoT

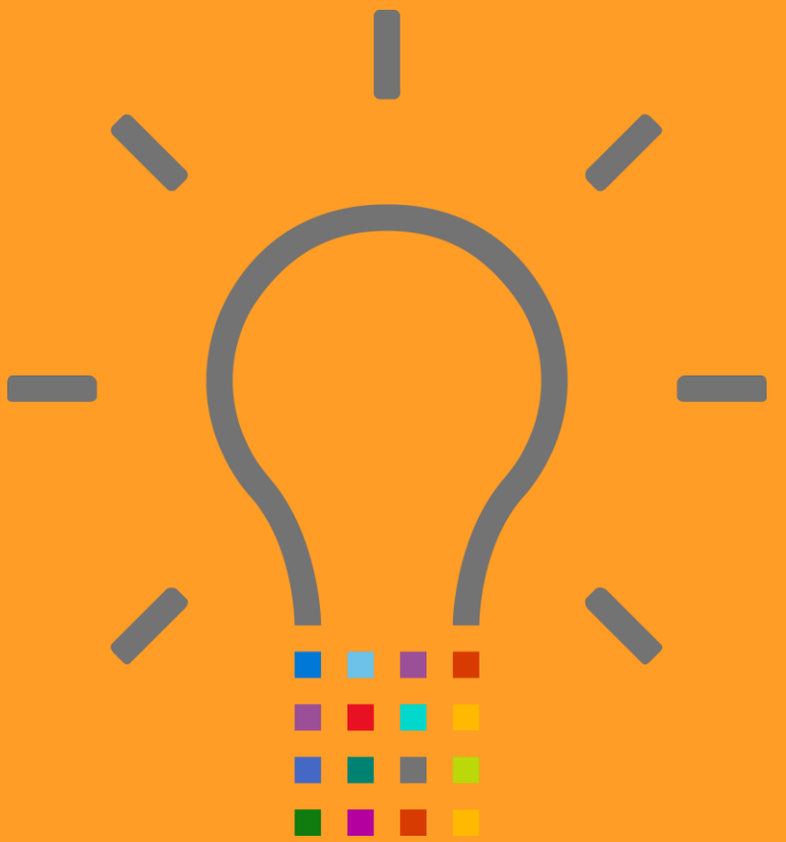
Azure IoT and Windows IoT

- All Windows 10 IoT editions are pre-certified to work with Azure IoT Suite preview for:
  - Telemetry
  - Remote Monitoring
  - Predictive Maintenance
- UWP samples available to validate connectivity and build on

Module Review

In this module, you learned about:

- Windows 10 IoT connectivity support
- Windows 10 IoT AllJoyn
- Windows 10 IoT cloud connectivity



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