

 Windows Embedded

Intelligent Systems in Retail



The Internet of Things Starts with *Your* Things

As intelligent devices and sensors gain the ability to interact, enabling billions of “things” to connect and communicate with each other, which things should you connect?

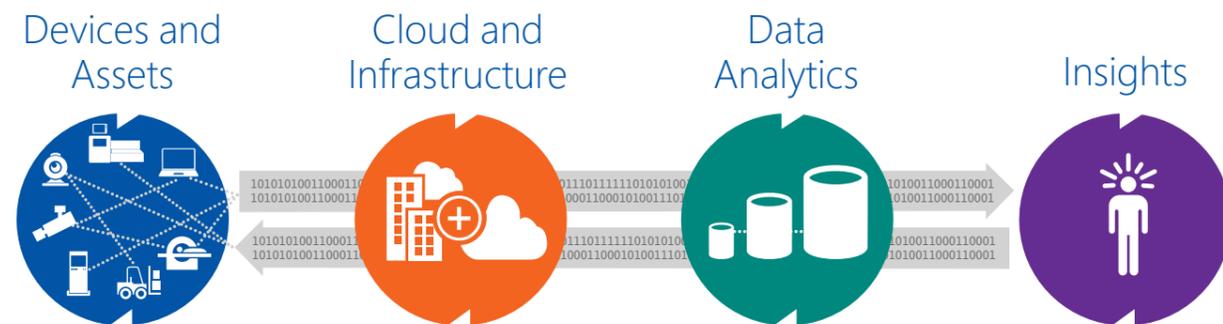
While the Internet of Things provides vast opportunities, it can seem overwhelming, complicated, and expensive. It doesn't have to be. Rather than think about billions of connected devices and sensors, think about it as the Internet of Your Things—the things that matter to your business.

The Internet of Things starts with **your things**. Start with the technology and infrastructure you already have in place. Utilize familiar devices and services in new ways by adding intelligent devices and assets and optimizing the value of data you already collect to enhance business processes and ultimately to help you make more informed business decisions.

Unleash the Potential of the Internet of Things with Intelligent Systems

Retail and hospitality enterprises need the Internet of Things to help drive business insight and agility, unlock new revenue opportunities, and gain a competitive advantage. Microsoft believes building an intelligent system is how retail and hospitality enterprises can unleash the full potential of the Internet of Things.

Intelligent systems enable data to flow across an enterprise infrastructure and the cloud, spanning the devices, sensors, and assets where valuable data is gathered to the cloud and back-end systems where that data can be translated into insights and action. With cloud-based services, like Microsoft Azure Intelligent Systems Service, it's now easier for retail and hospitality enterprises to more securely connect, manage, capture, and transform machine-generated data from line-of-business assets such as industry devices and sensors, regardless of their form factor and operating system.



Transform Your Business with Intelligent Systems

Microsoft provides a trusted platform to gather, store, and analyze your organization's data—from intelligent devices, sensors, and assets on the edge of the network to the cloud, to developer tools, and to the cloud and back-end systems and services. When you harness your data and connect your people and infrastructure together, you can identify opportunities that would otherwise be out of reach, changing the trajectory of your business in real time.



With intelligent systems built on Microsoft technology, retailers will be able to:

Improve Customer Experiences

Deliver personal, seamless, and differentiated customer experiences. Increase customer loyalty and sales through personalized services. Provide a seamless shopping experience across any channel, on any device, and delight customers with interactive and innovative device experiences.

Increase Employee Engagement

Develop a knowledgeable, mobile, and productive workforce. Empower store associates with instant access to product, inventory, and customer information, as well as line-of-business and productivity apps. Mobile devices enable employees to provide better customer service anywhere on the floor.

Drive Smarter Operations

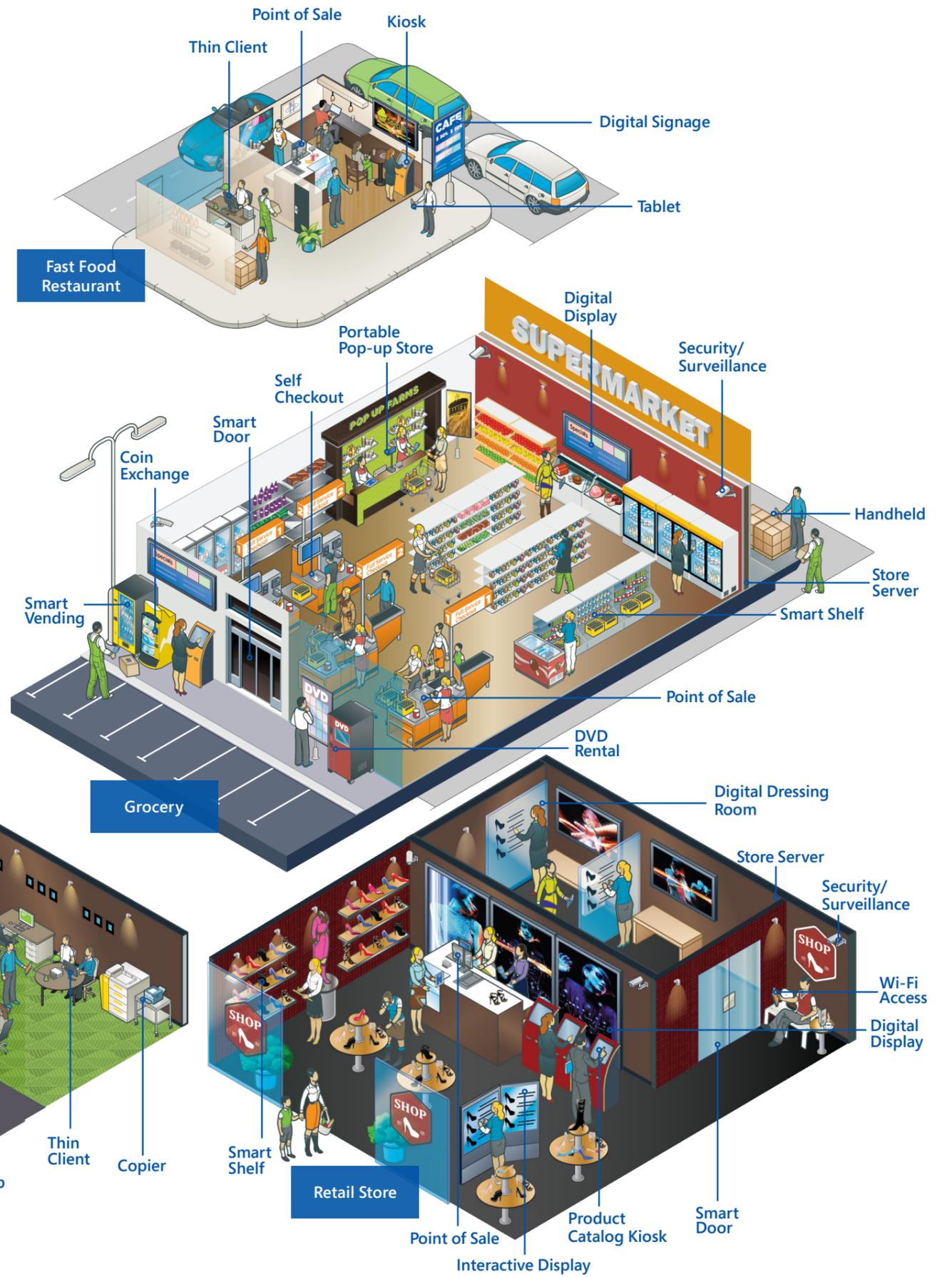
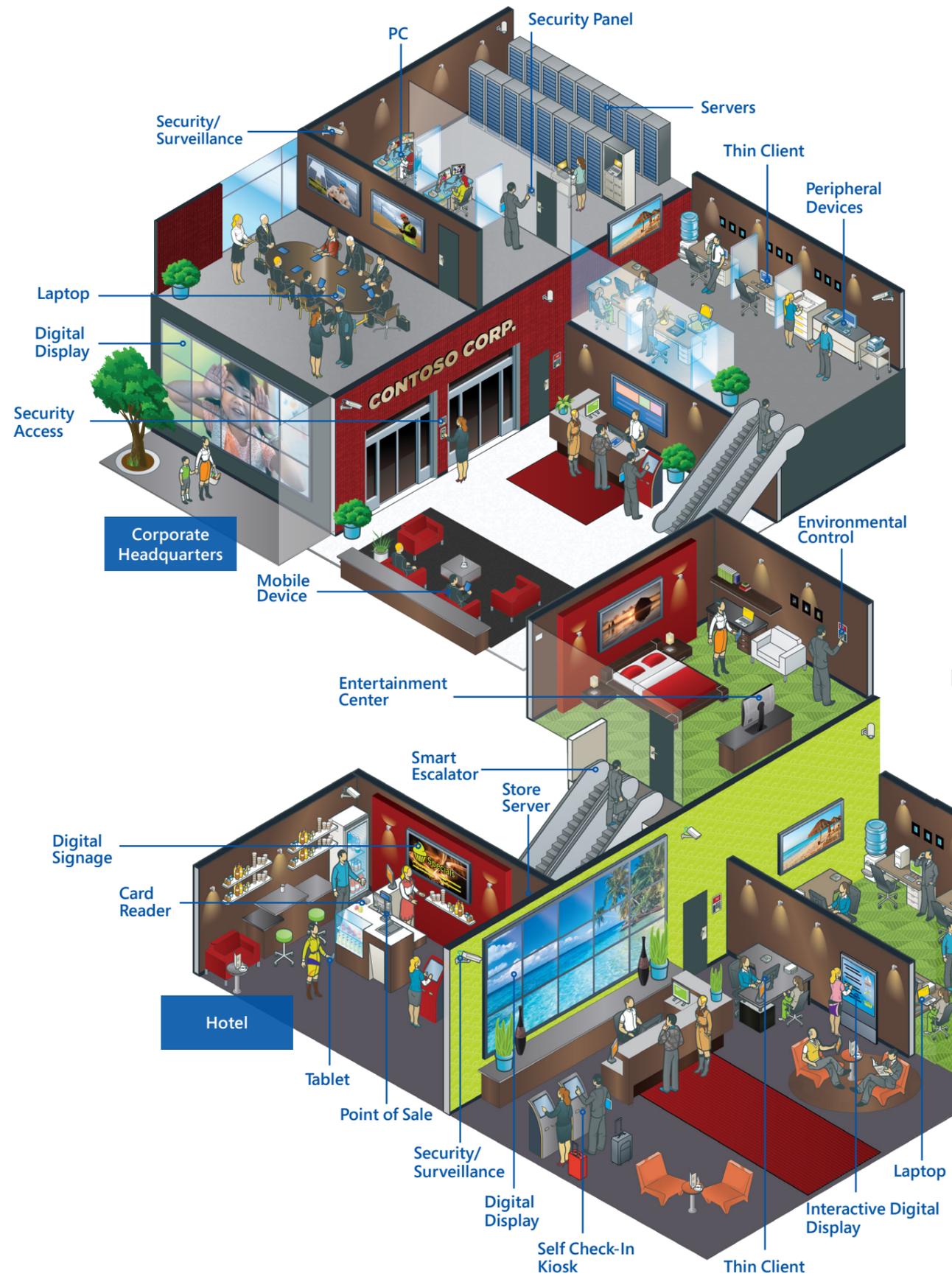
Drive efficient, flexible, and collaborative operations and lower operational costs with smart store operations. Optimize omni-channel retailing that integrates the advantage of physical stores with online channels and improve supply chain collaboration with better connected systems and real-time data insights.

Gain Better Business Insights

Make informed decisions with real-time customer, operational, and supply chain insights. Bringing the power of “big data” insights into physical stores makes it possible for retailers to have the right products, at the right price, in the right place, at the right time.

Intelligent Devices at the Point of Impact

Make your devices, sensors, and assets intelligent so they can enable smarter operations, track customer shopping behavior, deliver personalized content to delight customers, and empower your employees to better serve customers.



Intelligent Systems for Retail: Start with the Internet of **Your** Things

Microsoft and its partners have the technology and the experience to transform your business—right now. By building on your existing investments, you can easily create one truly flexible intelligent system that unleashes the potential of the Internet of Your Things.

Windows Embedded Devices

The Windows Embedded product portfolio is based on the Windows portfolio, bringing a set of new capabilities designed specifically for industry devices to enhance customers' experiences and improve retail operations. Windows Embedded technology brings retail businesses the following benefits:

- **Targeted line-of-business experience.** Windows Embedded offers advanced lockdown capabilities to tailor device functionality to your unique business needs.
- **Immersive user experience.** Windows Embedded enables familiar, intuitive, and interactive device experience through user-friendly applications and touch-enabled interactions.
- **Enterprise-class security.** Employing the latest Windows and extended embedded features helps make industry devices more secure, protecting the devices, the data, and the network.
- **Seamless integration and management.** Devices built on Windows Embedded 8 easily integrate into the existing infrastructure alongside Windows PCs and servers for seamless management.

Windows Embedded Portfolio of Products

Windows Embedded Industry

Windows Embedded 8.1 Industry delivers the power, familiarity, and reliability of Windows 8.1 with advanced lockdown capabilities, designed for special-purpose industry devices such as an industry tablet, point-of-sale terminal, digital signage, and kiosk.

Windows Embedded Standard

Windows Embedded 8 Standard is a modular version of Windows 8 Pro with additional lockdown capabilities and allows device manufacturers to create differentiated devices with dedicated line-of-business experiences.

Windows Embedded Pro

Windows Embedded 8.1 Pro is a full version of Windows 8.1 Pro with license restrictions specific to industry scenarios, and allows device manufacturers to quickly deliver industry device solutions.

Windows Embedded Handheld

Windows Embedded 8 Handheld powers the next generation of handheld devices for enterprise line-of-business productivity with the attractive and intuitive usability of Windows Phone 8.

Windows Server for Embedded Systems

Windows Server 2012 R2 for Embedded Systems and Microsoft SQL Server 2014 for Embedded Systems power server appliances designed to manage industry devices, delivering high performance, long-term product availability, and enhanced security.

Windows Embedded Compact

Windows Embedded Compact 2013, the latest version of Windows Embedded CE, powers small-footprint industry devices that need flexible hardware and hard, real-time support.

Microsoft Azure Intelligent Systems Service

Microsoft Azure Intelligent Systems Service is a comprehensive software-as-a-service (SaaS) cloud-based solution that enables retail and hospitality enterprises to use their existing infrastructure and assets to build intelligent systems quickly and securely so they can accelerate time-to-value, increase agility, and unlock new business opportunities.



Harness the Power of Intelligent Systems Service

Intelligent Systems Service connects devices and sensors to other devices, cloud-based services, and infrastructure in a heterogeneous environment, and enables easy configuration and remote management of devices. Intelligent Systems Service collects and compiles machine-generated data and transmits data to your infrastructure and cloud to be analytics ready. With familiar and powerful Microsoft analytical tools such as HDInsight and Microsoft Power BI for Office 365, you can turn data into meaningful insights that will help you make informed decisions in real time. With the support from Microsoft partners, retailers can innovate on top of Intelligent Systems Service to create rich and customized experiences.

Intelligent Systems Service can transform your business by enabling you to:

Centrally monitor and manage store operations.

Intelligent Systems Service enables retailers to have connected intelligent devices in-store that can predict and alert potential machine malfunction, optimize checkout lane openings, capture suspicious behaviors, and manage store devices and machine-generated data remotely with new levels of control.

Gain customer insights.

With Intelligent Systems Service, retailers can use location tracking on carts, cell phones, or video cameras to track store traffic patterns and monitor customer behavior. Combine with sales data to optimize store layout, product assortment, and inventory level.

Track shelf inventory in real time.

From the manufacturer, through shipments and stocking, to the floor and to sale, shelf sensors, RFIDs, price tags, or Wi-Fi way-finding enabled by Intelligent Systems Service provide real-time inventory visibility and allow proactive inventory management to meet customer needs.

Deliver personalized service.

Provide customer recommendations based on preferences and past purchases and send relevant coupons and offers in real time based on their location and interests. Use location tracking to detect erratic traffic patterns and guide customer behavior to enhance the overall shopping experience.



A diverse ecosystem of partners and solutions.

Microsoft works with leading device manufacturers and retail solution providers to deliver next-generation devices and innovative solutions to help retail and hospitality enterprises build intelligent systems—and realize the benefits of the Internet of Things.

Start small. Make a big impact.

Microsoft is already helping leading retail and hospitality enterprises use intelligent systems to take advantage of the Internet of Things. Here are some companies that started small and made a big business impact.

The **co-operative**

The Co-Operative Group, the United Kingdom's fifth largest food retailer, started harnessing the Internet of Things by enabling real-time pricing and promotions. Microsoft technology backed an intelligent system spanning point-of-sale devices, kiosks, self-checkouts, mobile devices, and data management. The solution enabled tracking of sales, trends, and stock orders, and responsive price adjustments—and \$317 million USD in weekly sales were driven by real-time offers.



Royal Caribbean International, the world's second-largest cruise line, started with data-sharing between devices and venues to drive individualized passenger experiences. Each ship acquired 35 Windows Embedded handheld devices to monitor food and cooler temperatures, leading to cooler temperature checks completed 60 percent faster. An integrated point-of-service (POS) solution was deployed based on the Windows Embedded platform, and seamless integration of POS, digital signage, interactive TV, and photo gallery systems created a better customer experience.



Autolib' started by partnering with the city of Paris and surrounding municipalities to base an intelligent car-sharing solution on Microsoft technology. The results were urban traffic congestion relief and more flexible, personalized transport options for the metropolitan area's 8 million people. The solution is expected to cut transportation costs by 90 percent and reduce CO2 emissions by 75 million metric tons by 2023.

Put Microsoft Intelligent Systems to Work for You

- Stay informed with the Internet of Your Things newsletter at www.InternetofYourThings.com.
- Learn about intelligent systems for retail, the Microsoft solution for the Internet of Things, at www.microsoft.com/intelligentsystems/retail.
- Move your existing devices to a modern Windows platform by upgrading through volume licensing or buying new devices from our OEM partners at www.microsoft.com/windowsembedded/en-us/products-solutions-overview.aspx.