Windows Tech Series
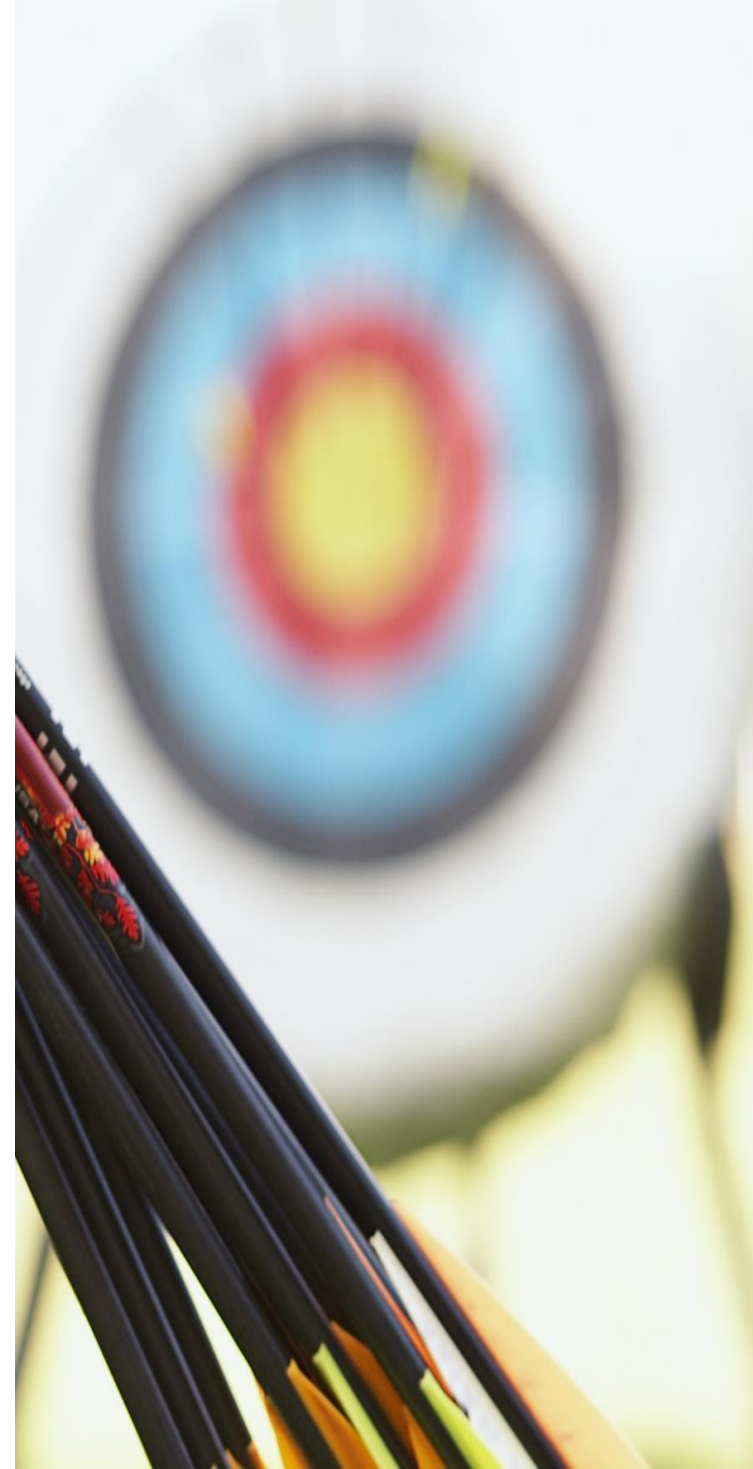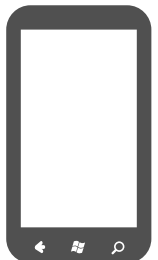## Windows 10 IoT Mobile Enterprise

Windows

Objectives

- Review Key Facts for Windows 10 IoT Mobile Enterprise

- List the options for building UWP apps for mobile devices and solutions

- Describe the Windows 10 IoT Mobile Enterprise user experience

Windows 10 IoT Mobile Enterprise – Key Facts

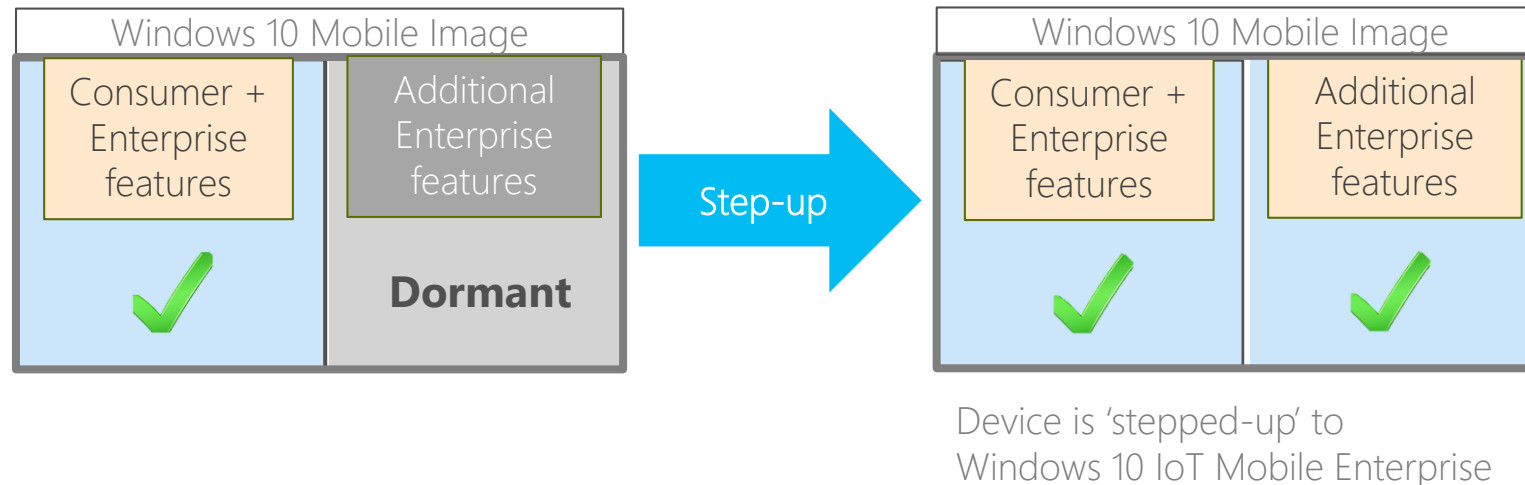# Windows 10 IoT Mobile Enterprise

Description	Next generation platform for line-of-business mobile devices built on Windows 10.	
Hardware	720p Display	1080p Display
Processor	ARM	ARM
Memory (minimum)	1 GB	2 GB
Storage (minimum)	4 GB	4 GB
Key Features	• All Windows 10 apps are compatible with Windows 10 Mobile and offer advanced lockdown features and multi-user support	
Typical Usage	• Mobile POS • Industry Hand-Held Terminal (HHT)	

- Same physical image as Windows 10 Mobile -> no additional bits
- Chassis flexibility
- Screen size limit: 8 inches

Windows 10 IoT Mobile Enterprise

- Any Win10 Mobile device can **Step-up** to Enterprise Edition to enable additional enterprise capabilities:
  - Controlled Update
  - Ability to have unlimited self-signed enterprise LoB apps running on the device
  - Enables Embedded Mode
- Step-up is done by injecting a 'Mobile Enterprise' license file either at image creation time or through device management
- Mobile Enterprise license file is accessed from http://myoem.microsoft.com or the Business Support Portal

Windows 10 Mobile Image	
Consumer + Enterprise features	Additional Enterprise features
✅	**Dormant**

Step-up →

Windows 10 Mobile Image	
Consumer + Enterprise features	Additional Enterprise features
✅	✅

Device is 'stepped-up' to Windows 10 IoT Mobile Enterprise

High-level Enterprise feature availability

- **Parity of features with WEH 8.1**: Close to parity with WEH 8.1

- **Next Generation Credentials:** Support for a number of new authentication methodologies

- **Wi-Fi Only**: Ability to build Wi-Fi only devices

- **USB Host/OTG**: Ability to drive peripherals, Continuum over USB with USB On the Go support

- **Lockdown, Assigned Access**: Ability to lock down an industry device to a specific set of apps and settings, based on the signed-in role

- **App-to-App Communication**: Apps can communicate to each other and to second-party services via inter-app messaging, enabling greater levels of data sharing

- **Controlled Update**: Ability to locally host, test and deploy device updates

- **Programmatic Access to HW**: Ability to programmatically control certain device radios (Bluetooth, cellular, and so on), control LED notifications, brightness settings

- **OOBE provisioning via barcode**

- **Step Up**: Ability to inject the 'Win10 Mobile Enterprise' license onto devices, enabling controlled updates, unlimited enterprise app side-loading

- Persist provisioning package for **enterprise reset**

- Allows for **deployment of custom scanner profiles** for devices that are shipped by OEMs with scanners

- **Suppression of Privacy, Consent and Device Pairing UI**

- **Better access to device HW**

- **Embedded Mode**

Industry connectivity support

Windows 10 IoT Mobile Enterprise supports:

- WiFi-only mobile devices

- USB Cellular Modem/MBB – data only

- 802.11r support to enable Fast Roaming

- Ethernet over USB

- USB Host and OTG to enable peripheral connectivity

Device examples

Bluebird BM180

5" HD Multi touch Display

Semi-rugged (IP-65)

Option MSR and Contactless Payment (MIFARE, FeliCa and Calypso)

Panasonic 5" Toughpad

5" HD Outdoor Touch Display

Ruggedized (IP-68), 3m drop test and waterproof

Quick charge plus hot swap battery

2D barcode Imager

Honeywell Dolphin 75e

2D barcode Imager

Rugged enough for tough work environments (IP-67 and 1.2m drop to concrete)

Compatible with popular Dolphin 70e accessories

Activation

- Consumer/Enterprise devices:
  - Device purchased pre-activated
- OEM devices:
  - OEMs submit their OS image (with license file injected) to Microsoft, using ingestion tool to pre-activate the OS for all devices.
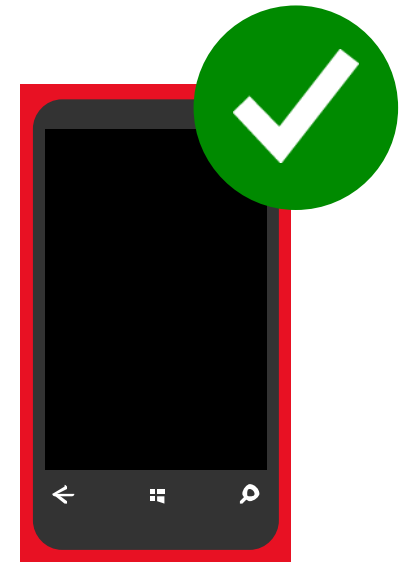
Windows 10 IoT Mobile Enterprise UWP Apps

Building IoT devices with UWP: "Embedded mode"
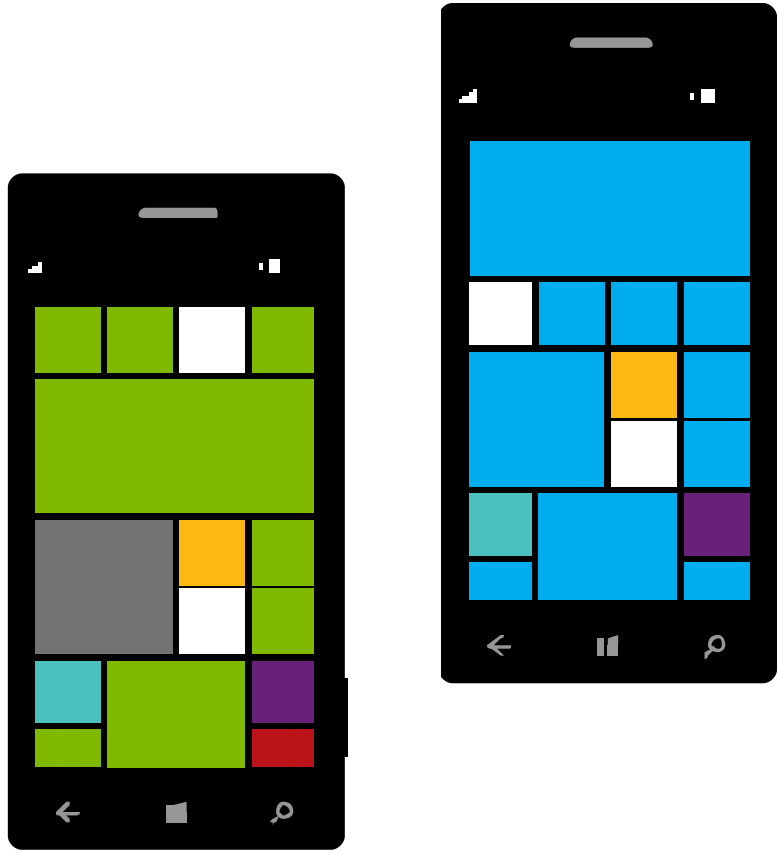
- Policy managed
- APIs to access to system settings
  - Time zone, system locale and Wi-Fi connection management
- Background applications for long running tasks
  - Full control for your device, free of standard Process Lifecycle Management

Mobile Enterprise apps

- Universal Windows apps
  - Windows Store
  - Sideloading

Cross-platform innovations

Windows Bridge for Android

Build apps for Windows 10 Mobile by repurposing Android code.

Windows Bridge for iOS

Make minimal changes to your iOS®/Objective-C code to build for Windows 10 Mobile.

Cordova

Enables cross-platform development standard web technologies, such as HTML, CSS, and JavaScript.

Xamarin

Target iOS, Android, Windows and Mac with a single, shared C# codebase.
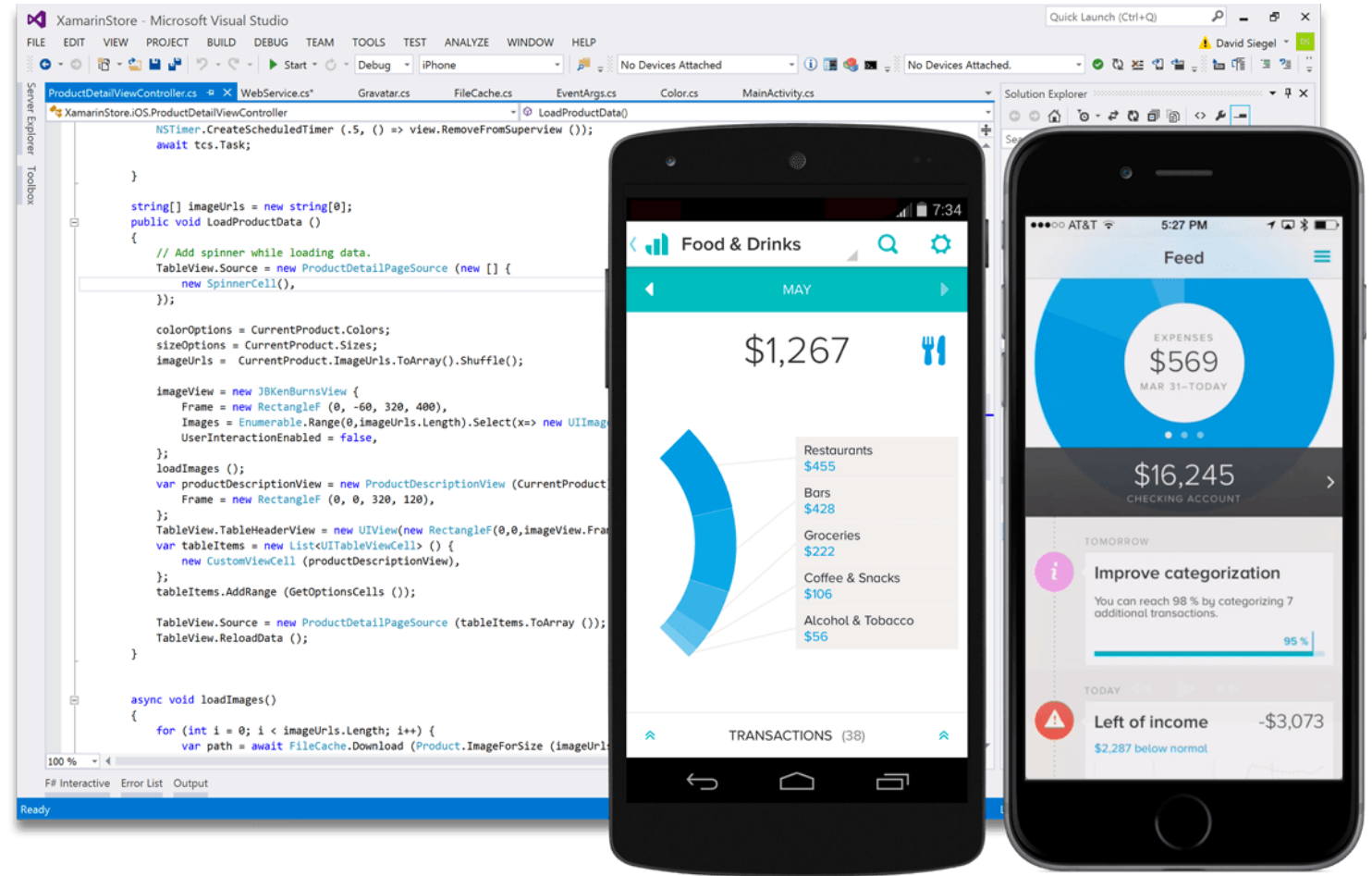
App store for business

Windows Store

- Modern apps
- Sign in with MSA
- Pay with credit card, gift card, PayPal, Alipay, INICIS, mobile operators

Windows Store for Business
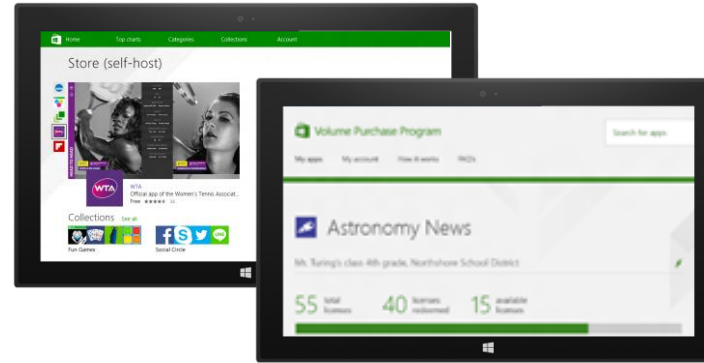
- Modern apps
- Leverages Azure Active Directory for some scenarios
- Private organization store for the organization's preferred or LoB apps
- Pay with credit card or PO/invoice
- Deploy modern apps offline, in images, and more
- Modern app license management

"Company Portal"
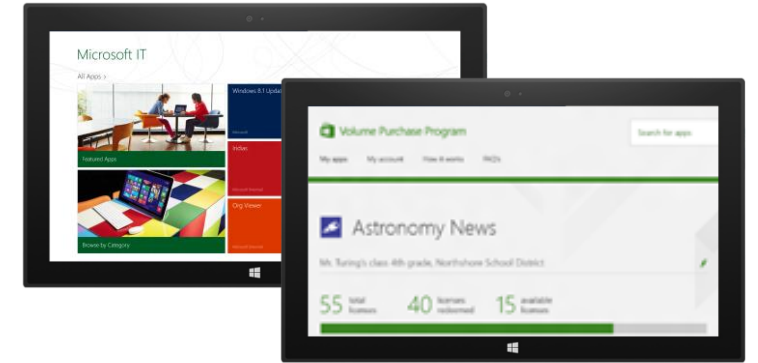
- Sideload line-of-business modern apps
- Deploy apps from the Windows Store (even when the Store UI is disabled) through Windows Store for Business integration using MDM

Windows 10 IoT Mobile Enterprise UWP User Experience
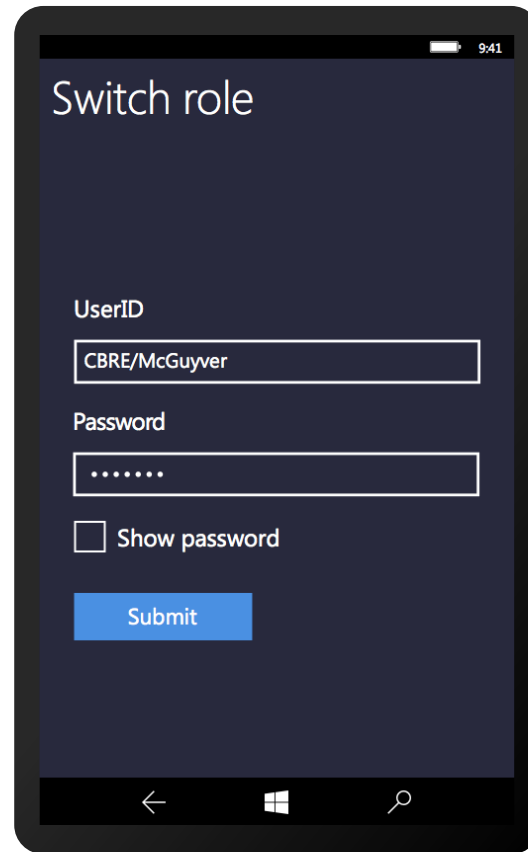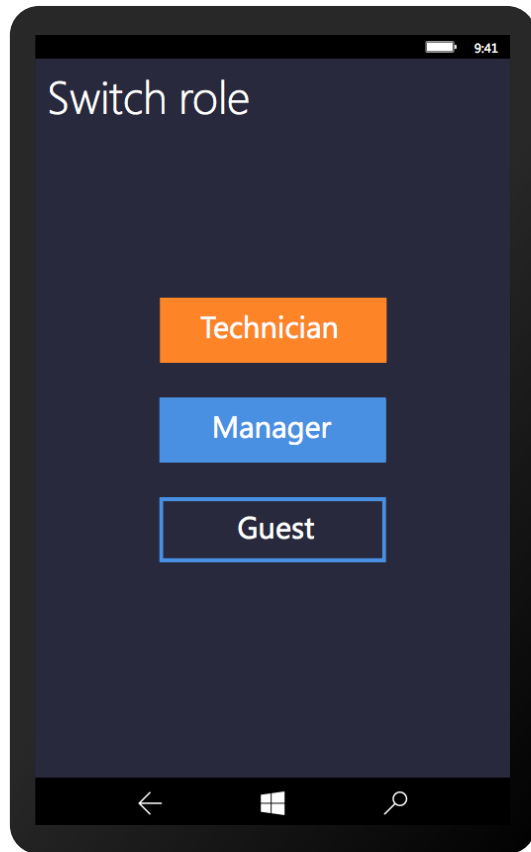
User experience

- Natural and rich user experience
  - Easily capture data while working
  - Dock device for more extensive activities

- Customized device experiences
  - Customized role-based experience

- Advanced speech technologies
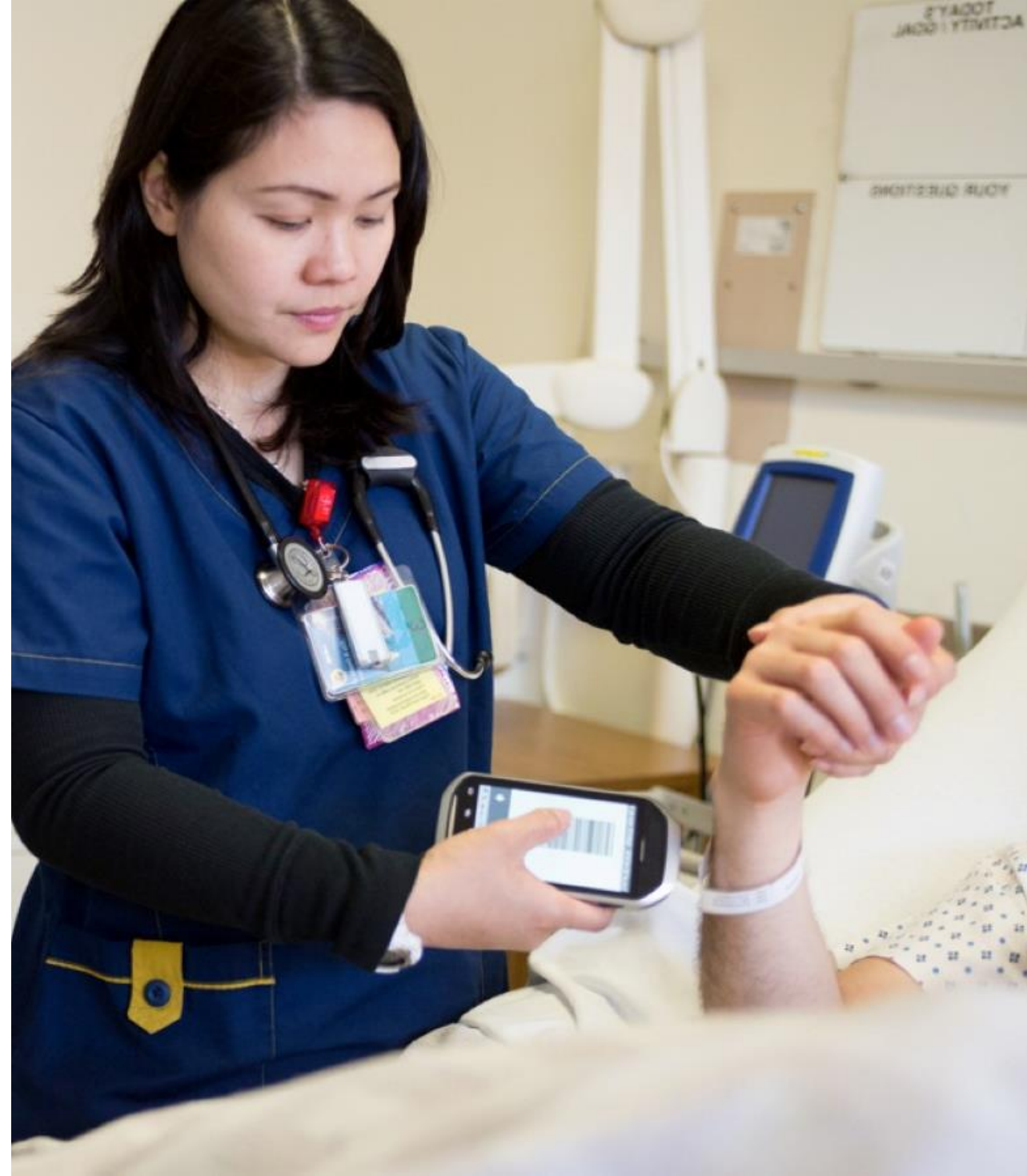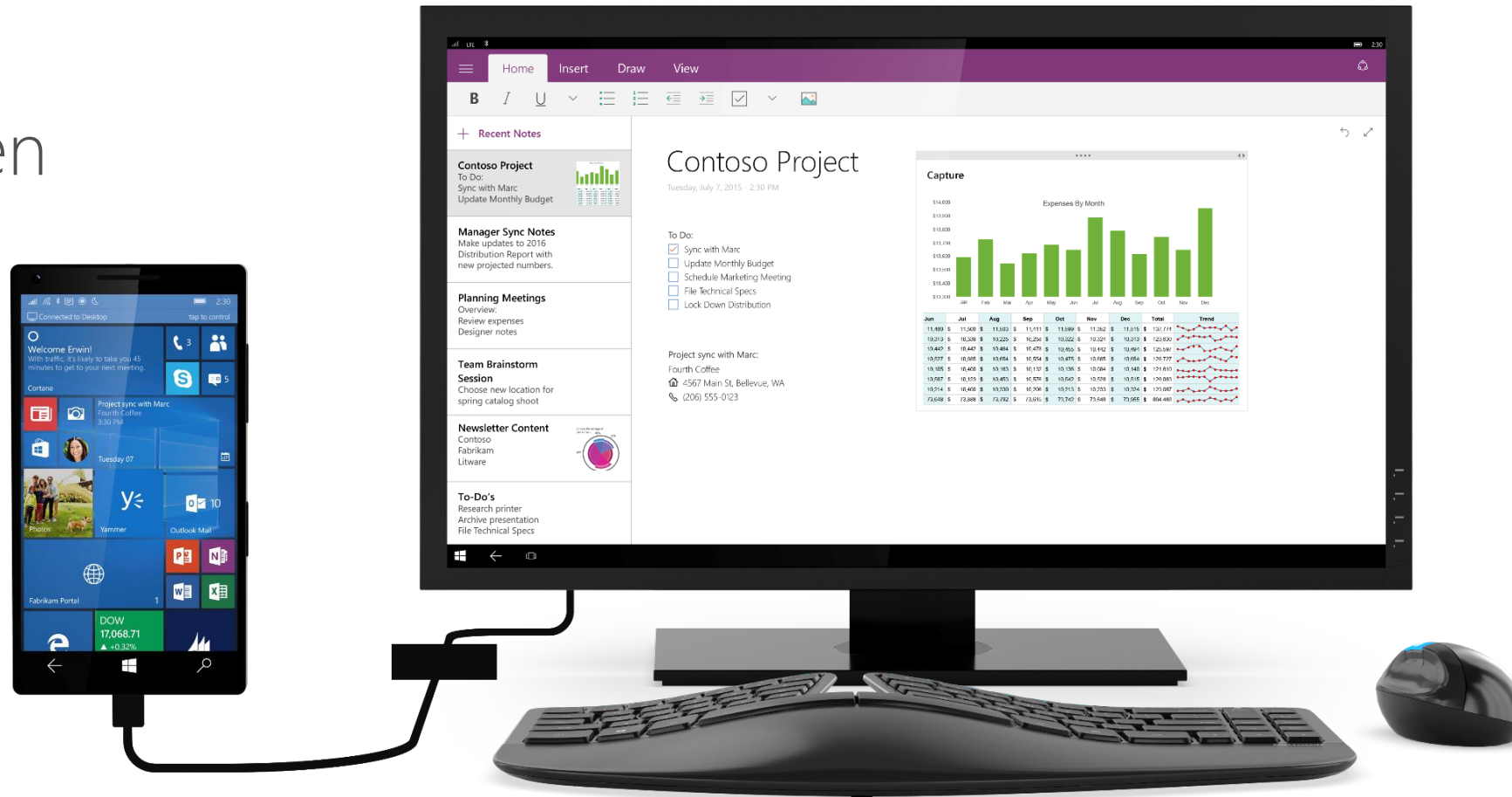
Customized device experience based on roles
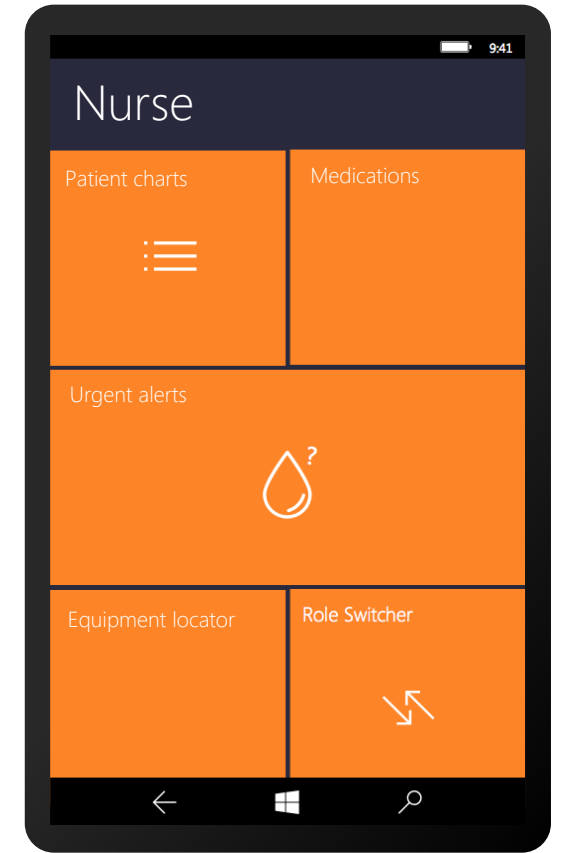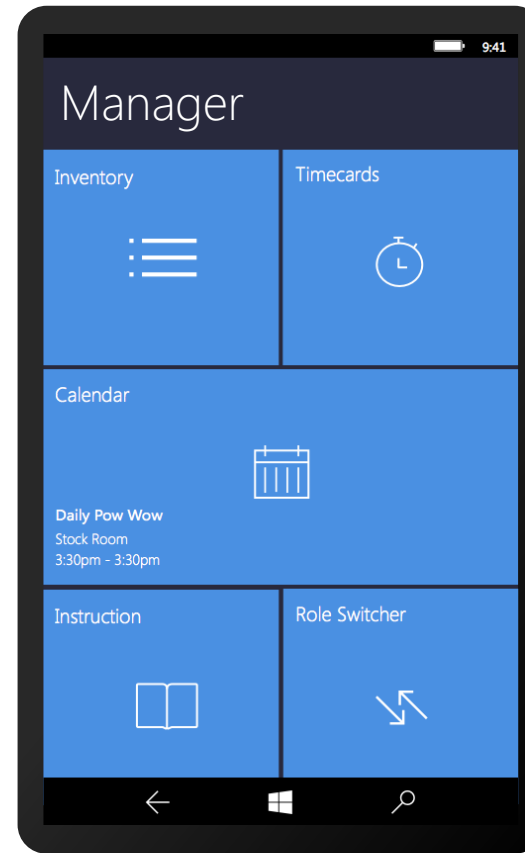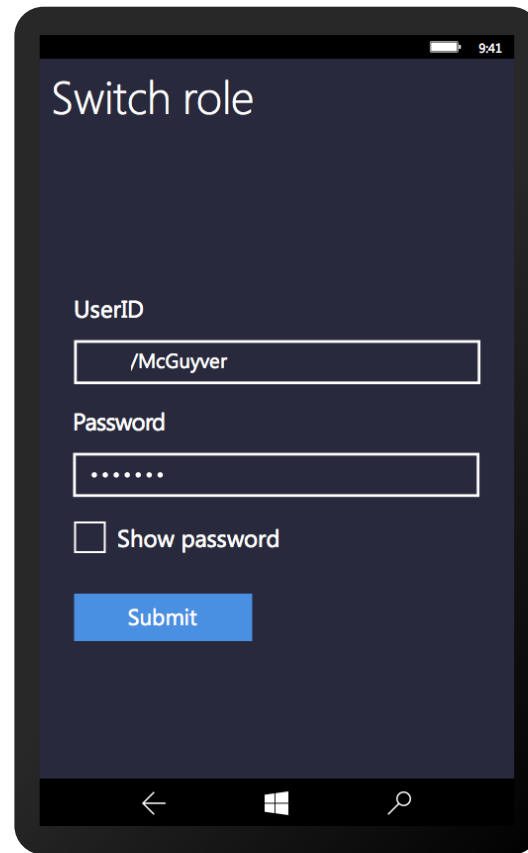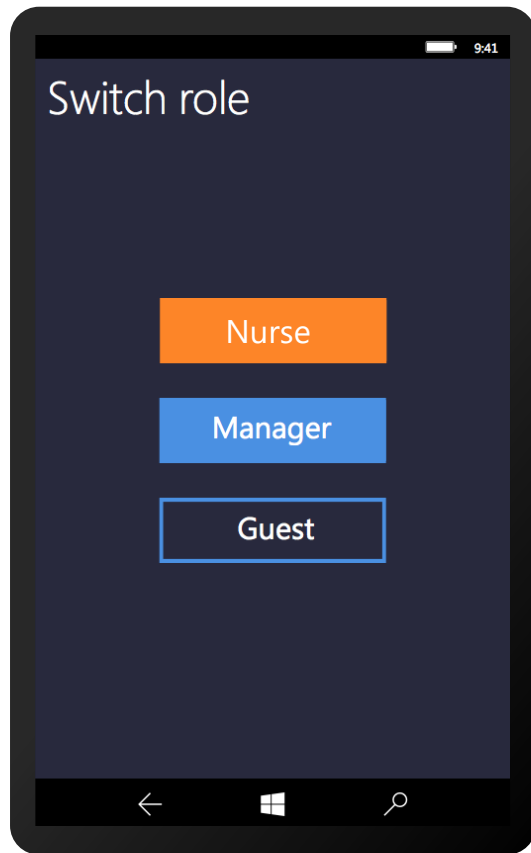
Customize device experience based on roles
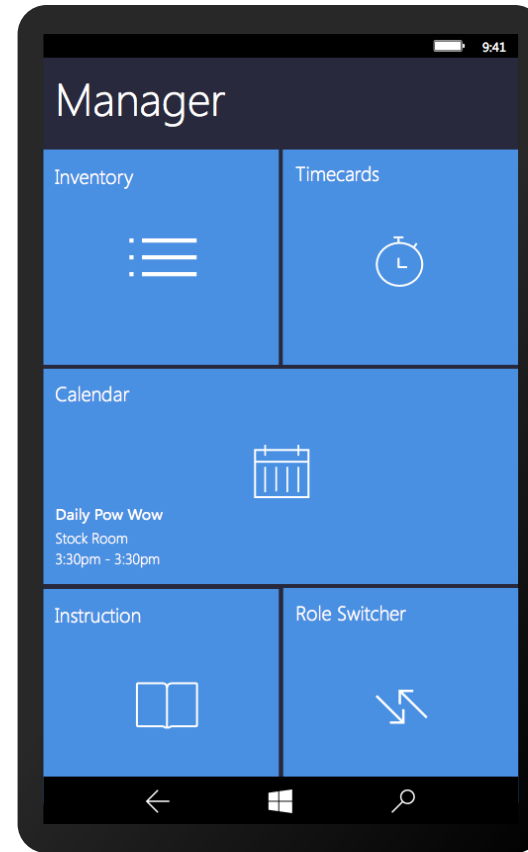
Continuum

Second screen docking experience for your phone:

- PC power
- Project device screen
- Keep talking

Module review

In this module, you learned about:

- Key Facts for Windows 10 IoT Mobile Enterprise

- The options for building UWP apps for mobile devices and solutions

- The Windows 10 IoT Mobile Enterprise user experience

Microsoft