Windows 10 IoT Mobile Enterprise

Ubiquitous connectivity and the rise of Cloud computing has fueled industry demand for hand-held devices and created opportunity for OEMs. To meet this demand, device manufactures face the challenge of innovating quickly, creating devices that meet customer expectations for application compatibility, security, manageability, and high availability. **Windows 10 IoT Mobile Enterprise** - Microsoft's leading platform for line-of-business mobile devices - is designed to power highly secure, manageable devices in demanding Enterprise environments.

Windows 10 IoT Mobile Enterprise is built for demanding Enterprise environments:
- Specialized peripheral compatibility
- Bulk deployment and manageability
- Extended use: 24hrs per day, 7 days per week, for 5 to 7 years
- Fast and easy application development
- Application compatibility across devices

Targeted device use cases include:
- Store associates, Store managers, Assisted sales, Mobile POS.
- Back-of-store, loading dock, warehouse, inventory
- Delivery, fulfilment, replenishment, supply-chain, logistics, final inspection
- Field service, field sales, managers, supervisors

Windows 10 IoT Mobile Enterprise
Differentiating Features
- Assigned access with multi-user profiles
- Bulk provisioning capabilities through NFC, CF card, or OTA

Hardware and Application Support:
- Support for Universal Windows apps; no Classic Windows applications
- Specialized retail/LOB peripheral support with the ability to talk directly to hardware through new wiring API

Deliver Enterprise-class devices optimized for industry line-of-business applications
IoT Mobile Enterprise includes 100% of the capabilities of Windows 10 Mobile while including features designed to address the most pressing Enterprise issues:
- One common toolset, one common app platform, and one common deployment, management, and servicing system allows your customers to easily integrate Windows 10 IoT into their existing environment.
- Advanced lockdown capabilities are optimized for mass deployment, configuration and management.
- Multi-user support provides improved device utilization and productivity for Enterprise scenarios.

Secure
Meet your customer needs for a more secured industry device with Windows' Enterprise-grade security capabilities and advanced lockdown
- Enterprise-grade security ensures the device and the data that the device collects and manages are protected from the next generation of threats, ensures secure connection to the network and thwarts unauthorized access, and provides advanced malware threat resistance by ensuring that only certified apps run on the device.
- Windows 10 allows OEMs to lock devices down with business-specific applications and ensures that the device functions and is used as intended

Innovate with support for best in class hardware
Enables hardware chassis flexibility beyond typical phone configurations including additional peripherals, broad driver support for peripherals, and the ability for custom drivers to talk directly to hardware through new wiring API and buss support.

Windows 10 IoT Features at a Glance

Granular UX Control

Unified Write Filter
- ☒ Create Read-only devices
- ☒ Protect system against write operations

Assigned Access
- ☑ Block edge gestures, hotkeys and other key combinations
- ☑ Launch a Universal Windows app on login plus lock access to system
- ☑ Multi-user profiles for mobile with Application and Settings Allow Lists
- ☑ Button Remapping and Lockdown

AppLocker
- ☒ Eliminate unwanted/unknown applications
- ☒ Suppress system dialogs & control processes that can be run

MDM & Group Policies
- ☑ Suppress toast notifications
- ☒ Restrict USB devices / peripherals on system

Shell Launcher
- ☒ Launch a Classic Windows application on login
- ☒ Block hotkeys and other key combinations

Embedded Logon
- ☒ Suppress Windows UI elements displayed during Windows logon and shutdown
- ☒ Suppress Windows UI elements displayed during logon and logoff

Embedded Boot Experience / Unbranded Screens
- ☑ Custom brand a device by removing and/or replace Windows UI boot elements

Security
- ☑ Advanced Device Security
  - • Only allow trusted peripherals
  - • Secure IoT Devices with Trusted Platform Modules (TPM)
- ☒ Next Generation Credentials – two-factor authentication
- ☒ Device Guard - Run only trusted apps with Advanced Threat Resistance
- ☒ Windows Hello and Passport

Management
- ☑ MDM Enablement
- ☑ Ability to control and block modern app updates
- ☒ Ability to block un-enrollment
- ☒ Context Manager
- ☑ Bulk provisioning through Barcode/NFC/SD card

Servicing
- ☒ Current Branch (CB)
- ☑ Current Branch for Business (CBB)
- ☒ Long Term Servicing Branch (LTSB)

Activation
- ☒ Deferred activation
- ☑ No activation required
- ☒ Online activation

App Platform
- ☑ Universal Windows Platform (UWP) apps
- ☒ Classic Windows applications (Win 32/.NET)

Tools
- ☑ Converged toolset: Image Configuration Designer (ICD) in the Assessment & Deployment Kit (ADK)

Peripheral/Device Connectivity Support
- ☑ Retail Industry Peripherals supported in box by Enterprise (Barcode Scanner, Mag Stripe Reader, Receipt Printer, Cash Drawer , Payment Terminal)
- ☑ Access to standard busses (e.g. GPIO, I2C, PSI) and system settings (e.g. power state, radio control, Bluetooth) via UWP APIs
- ☑ Access to Windows Universal Driver (UD) Platform creates common & consistent device driver APIs
- ☑ AllJoyn is integrated into Windows 10 core framework, so its available to all Windows 10 devices

Windows 10 IoT Version Comparison

Version	Enterprise		Mobile Enterprise		Core	
What is it?	Full version of Windows 10 with advanced lockdown capabilities powering a range of industry devices across retail, manufacturing, health, government or any other industries.		Next generation platform for line-of-business mobile devices built on Windows 10.		An optimized version of Windows that enables building smaller footprint and lower cost devices but still delivers the same capabilities customers expect in Windows.	
Hardware	32-bit	64-bit	720p Display	1080p Display	No Display	Display
Processor	x86	x86	ARM	ARM	ARM or x86	ARM or x86
Min Memory	1GB	2GB	1GB	2GB	256MB	512MB
Min Storage	16GB	20GB	4GB	4GB	2GB	2GB
Key Features	• Win32 and Universal App support • Advanced security threat protection • Same deployment, manageability and servicing as desktops • Advanced device lockdown capabilities		• All Windows 10 apps are compatible with Windows 10 Mobile and offer advanced lockdown features and multi-user support.		• No shell; UI customizable for your brand • Single application; Boot straight to application	
Usage Scenarios	• Industry tablets • POS • Kiosk • Digital signage • ATM • Medical devices • Manufacturing devices • Thin client		• Mobile POS • Industry Hand-Held Terminal (HHT)		• Digital Signage • Smart Building • IoT Gateway • HMI • Smart Home Devices	
Product Lifecycle	• 10 years product availability • 10 years product support		• 5 years product availability • 5 years product support		• TBD • TBD	

Which Version to Choose?	Does the targeted device require desktop functionality or access to desktop apps (e.g. Win32, .NET, WPF)?	Does the targeted device require a shell experience, multiple applications, Windows first-party applications, touch, or mobile voice?	For devices that don't require any of these features, manufacturers should investigate using Core.

Microsoft