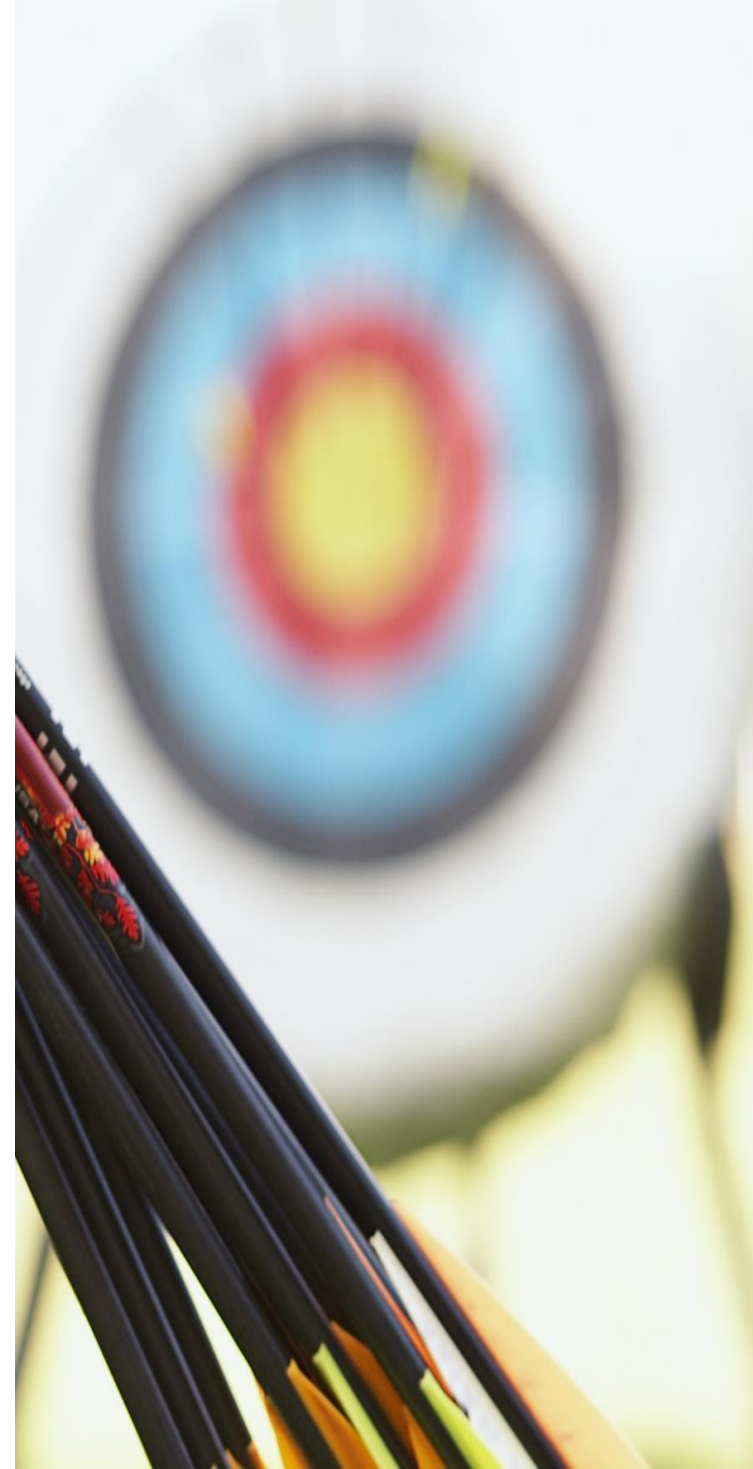


Windows Tech Series

Windows 10 IoT – Management and Servicing

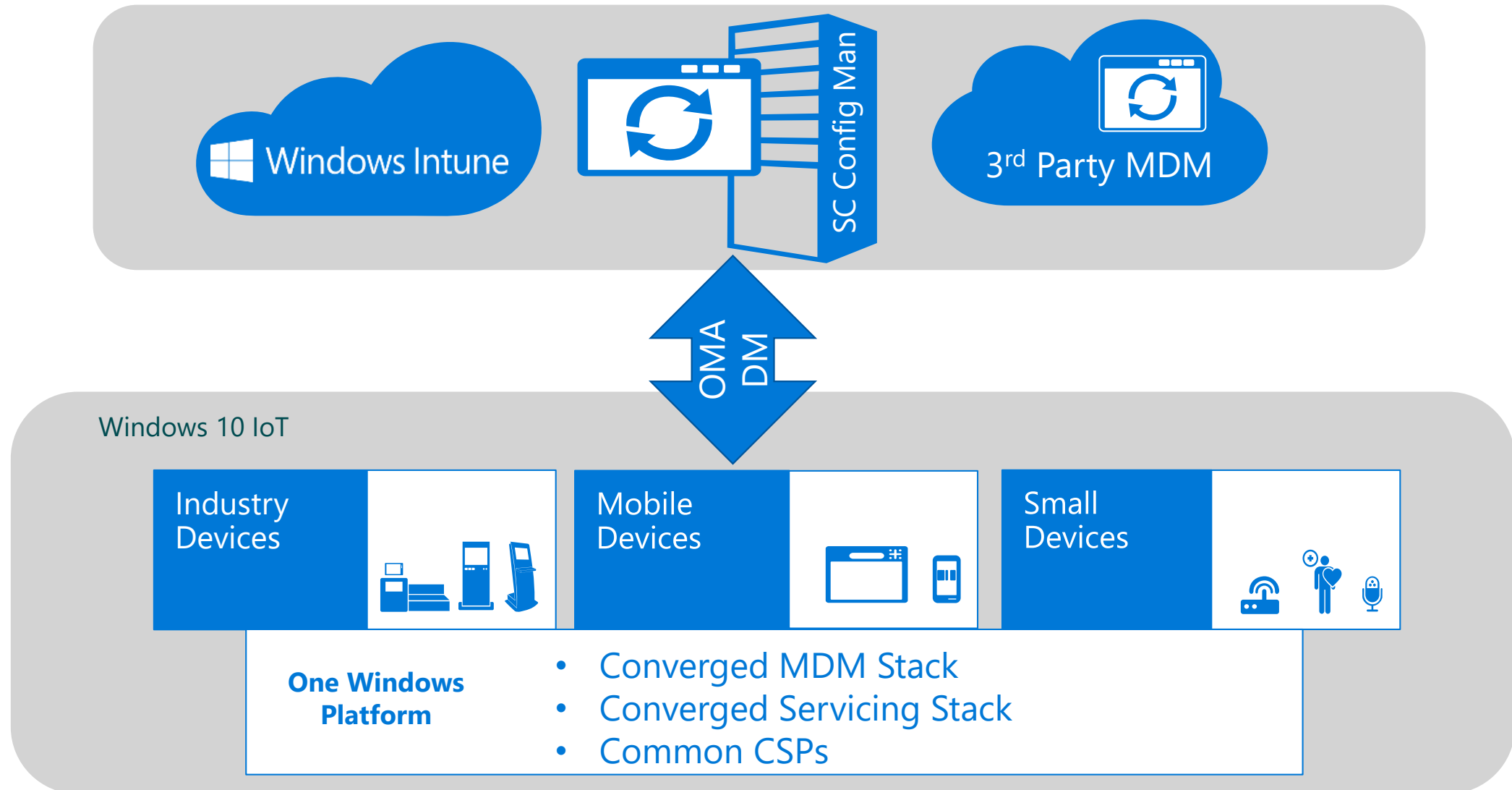
Objectives

- Describe management approaches for Windows 10 IoT devices
- Describe the Windows 10 IoT servicing models
- Identify edition-specific management and servicing issues
- Review the Windows 10 IoT update schedule

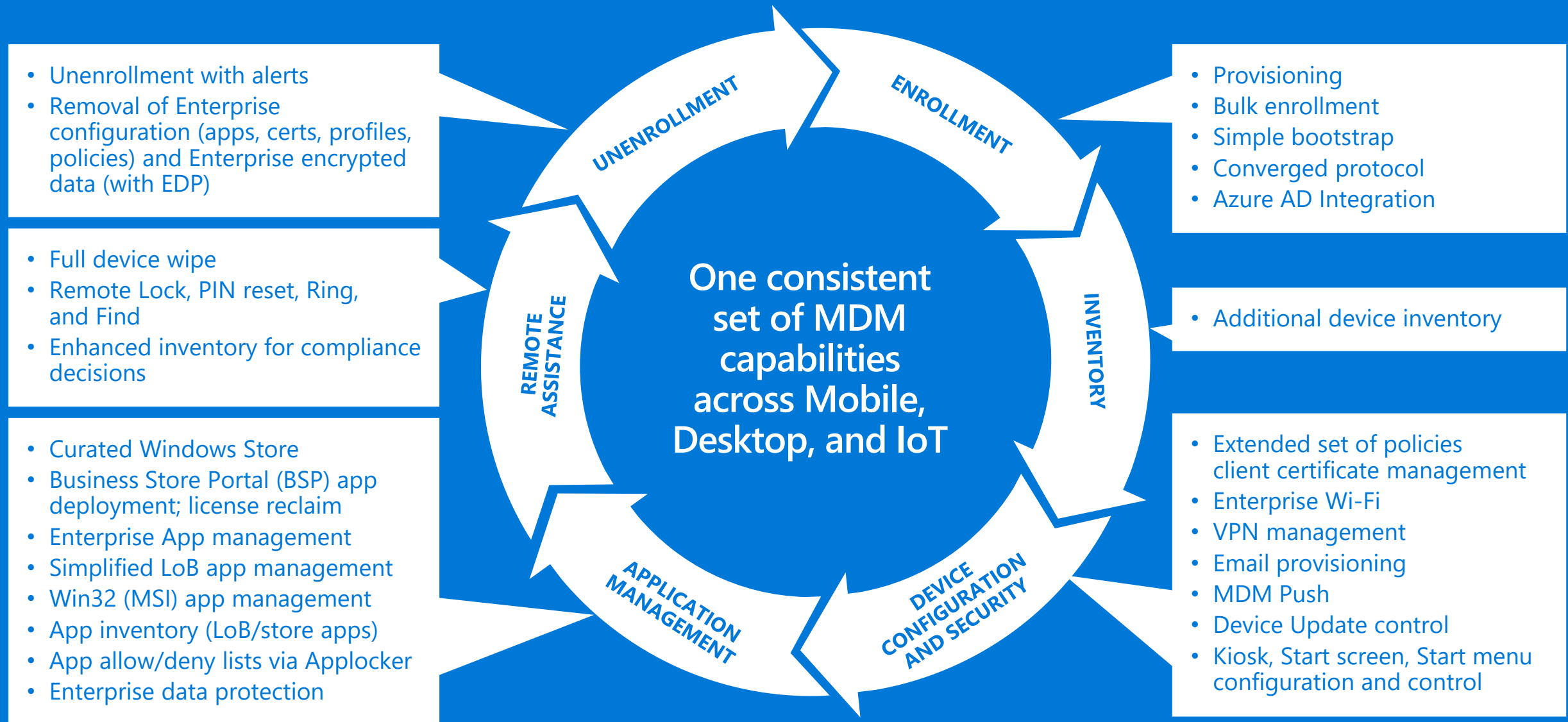


Managing IoT Devices and Solutions

Consistent device management



MDM in Windows 10



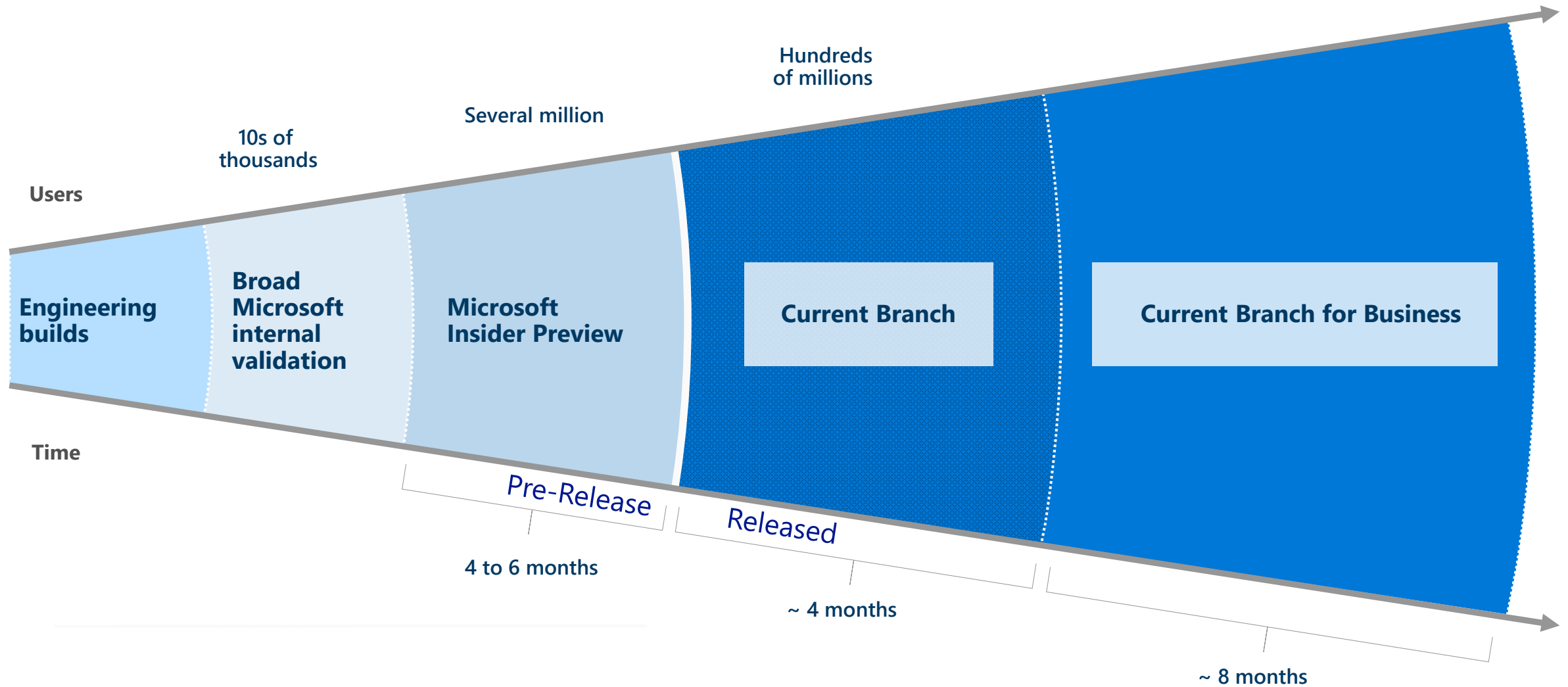
Remote diagnostics

- Ability to get log files (.etl) from a collection of ETW providers
- Log files (.etl) are decoded on device
 - Enables ease of viewing on other devices/PCs
- Provides facility to extract events from the event channels
 - Event channels are available in desktops only



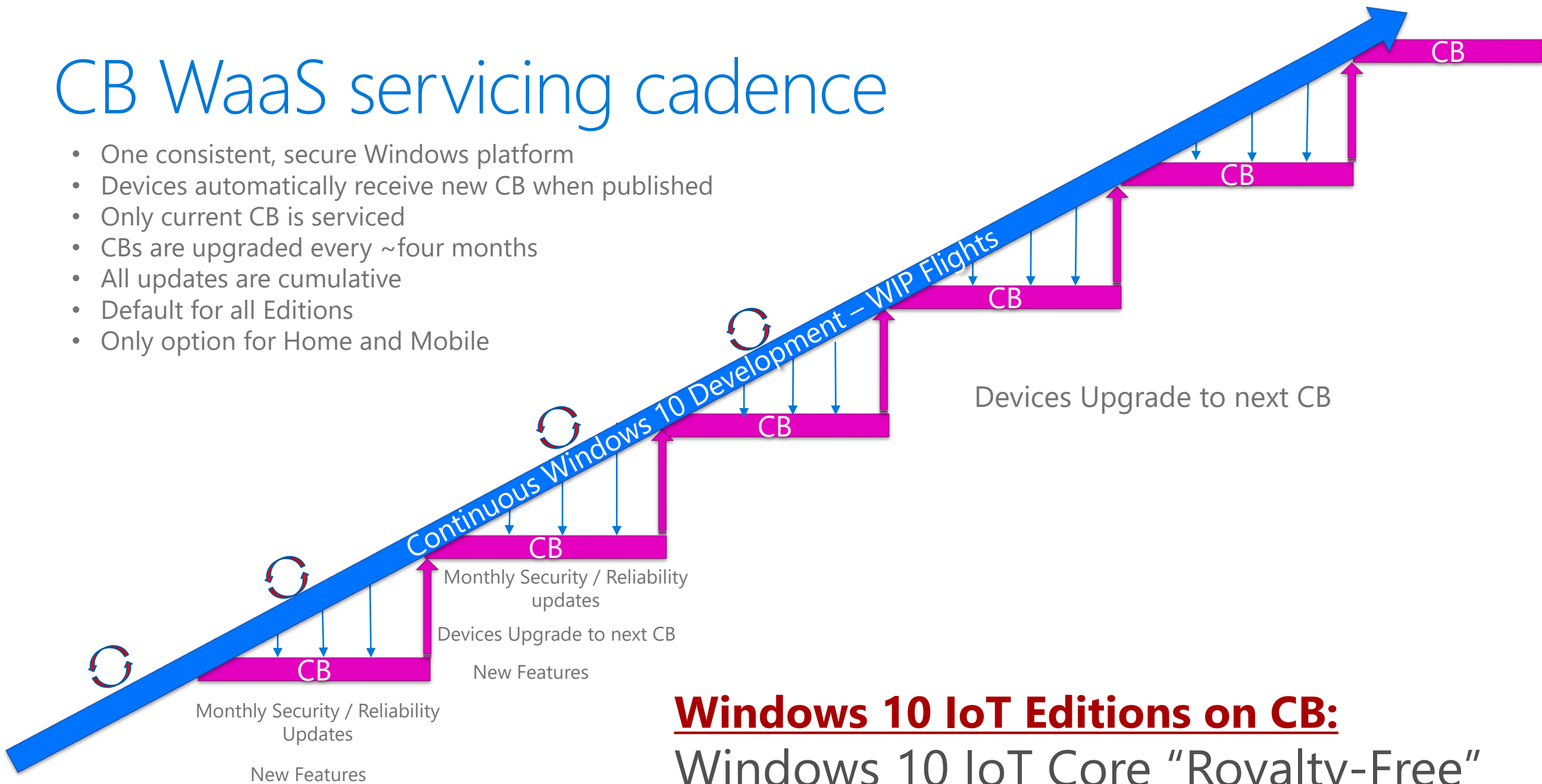
Servicing IoT Devices and Solutions

Servicing: releases and branches



CB WaaS servicing cadence

- One consistent, secure Windows platform
- Devices automatically receive new CB when published
- Only current CB is serviced
- CBs are upgraded every ~four months
- All updates are cumulative
- Default for all Editions
- Only option for Home and Mobile

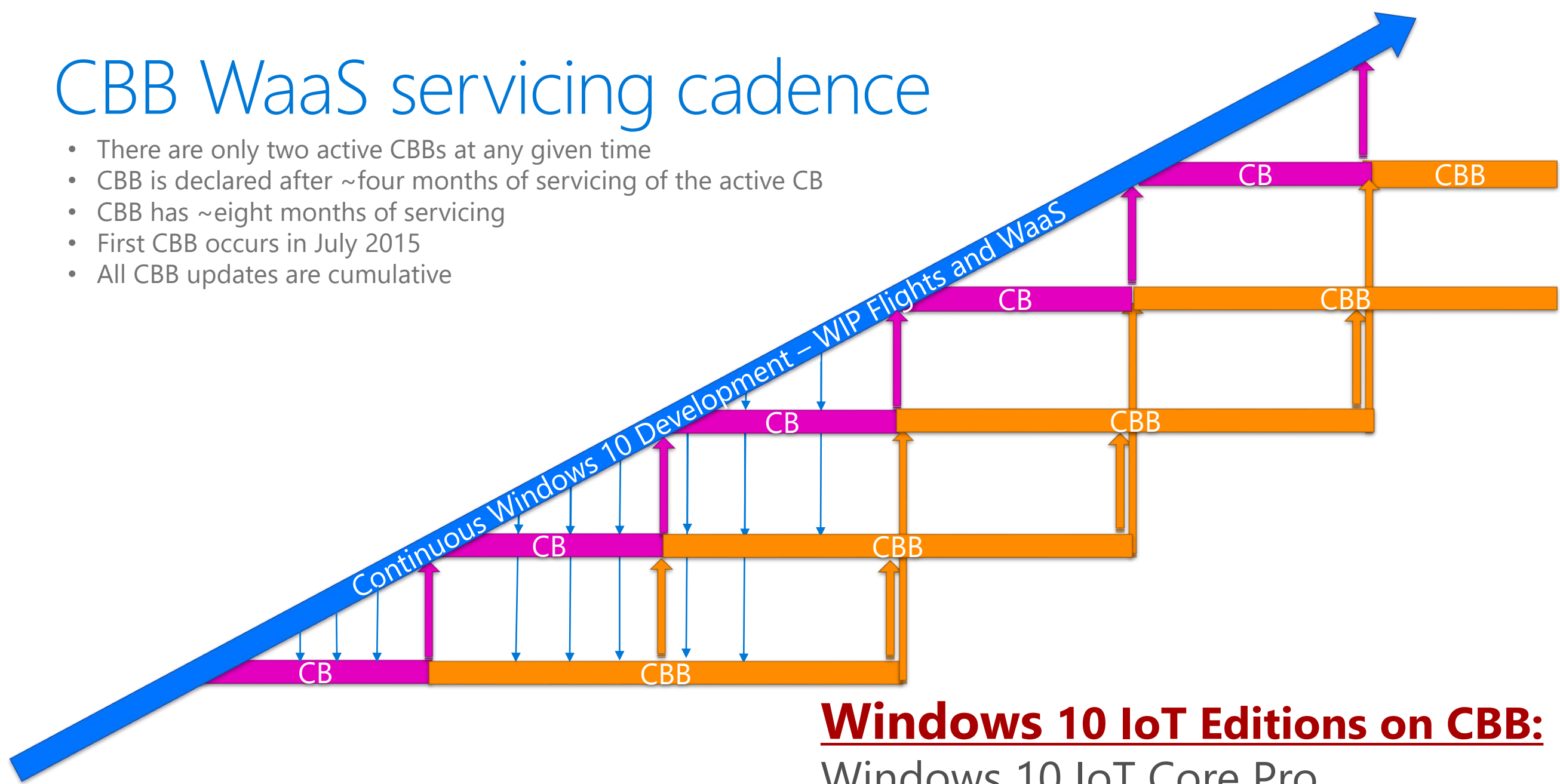


Windows 10 IoT Editions on CB:

Windows 10 IoT Core "Royalty-Free"

CBB WaaS servicing cadence

- There are only two active CBBs at any given time
- CBB is declared after ~four months of servicing of the active CB
- CBB has ~eight months of servicing
- First CBB occurs in July 2015
- All CBB updates are cumulative



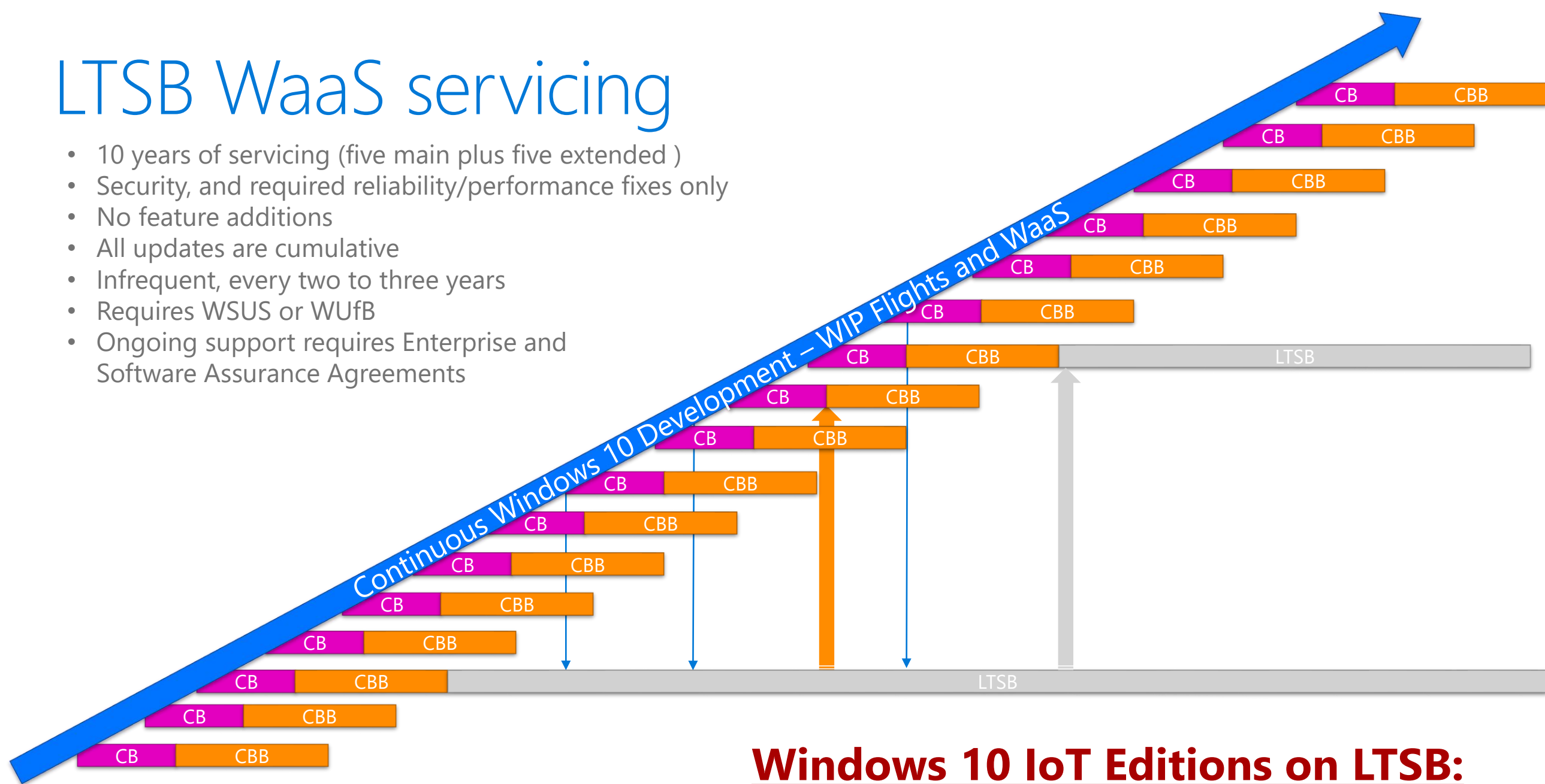
Windows 10 IoT Editions on CBB:

Windows 10 IoT Core Pro

Windows 10 IoT Mobile Enterprise

LTSB WaaS servicing

- 10 years of servicing (five main plus five extended)
- Security, and required reliability/performance fixes only
- No feature additions
- All updates are cumulative
- Infrequent, every two to three years
- Requires WSUS or WUfB
- Ongoing support requires Enterprise and Software Assurance Agreements



Windows 10 IoT Editions on LTSC:
Windows 10 IoT Enterprise

Servicing and edition summary

Comparison	Servicing Model for Windows 10 IoT Releases		
	Current Branch	Current Branch for Business	Long-Term Servicing Branch
Supported Windows 10 IoT Editions	Windows 10 IoT Core	Windows 10 IoT Core Pro Windows 10 IoT Mobile Enterprise	Windows 10 IoT Enterprise Windows 10 Enterprise LTSC
Recommended Scenarios	General Use, Early Adopter Businesses	General Business Use	Specialty Uses
Serviced Lifespan	~4 months	~8 months	10 years (Servicing Updates Only)
Latest Build (Including Apps) Required for Servicing Updates	Yes	Yes	No (Receives Up To 10 Years of Servicing Updates)
Windows Update Support	Yes	Yes	Yes
WSUS/WUFB/SCCM Support	Yes	Yes	Yes
Supports Windows 32 Versions of Microsoft Office	Yes	Yes	Yes
First-party Browsers Included	Microsoft Edge, Internet Explorer 11	Microsoft Edge, Internet Explorer 11	Internet Explorer 11
Notable Windows System Apps Removed	None	None	Microsoft Edge, Windows Store Client, Cortana (Limited Search Available)
Notable Windows Universal Apps Removed	None	None	Outlook Mail/Calendar, OneNote, Weather, News, Sports, Money, Photos, Camera, Music, Clock

Controlling update behavior

OEMs and Enterprises have several options to control update behaviour:

- Define update behavior through policy and maintenance windows
 - Control download, install and reboot
- Devices can connect directly to Windows Update (WU)
- Enterprises can further control update through Windows Server Update Services (WSUS) and MDM

Edition-specific Management and Servicing Issues

Servicing cycle for Windows 10 IoT Enterprise

- Longer life cycle
 - Maintain 10-year support life cycle
- Security updates
 - Continue monthly security updates
- No frequent feature updates
 - Receive monthly security updates for designated rollups for 10 years after release
 - Microsoft will designate a long term support rollup every 2-3 years

Device Servicing

OEM provides customer security updates obtained from My OEM, and customer deploys them via WSUS, Intune, System Center, or third-party MDM solution

New device

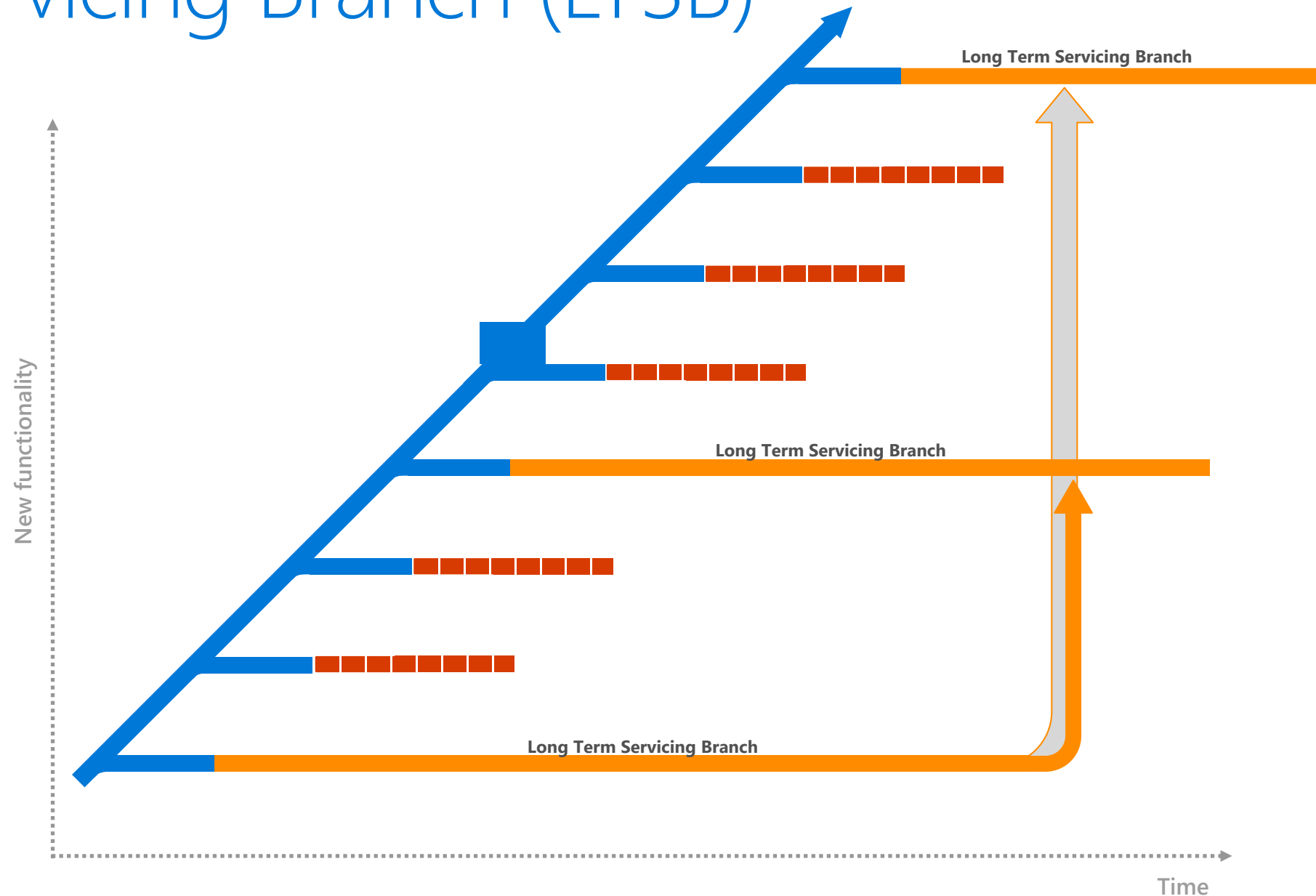
OEM builds devices using RTM bits obtained from SOC



Long Term Servicing Branch (LTSB)

Customer experience for special systems

- Security updates and fixes are delivered regularly
- Customers on Long Term Servicing Branch receive security and critical fixes for 10 years only
- Customers can move from one LTSB to the next one via in-place upgrade and can also skip one LTSB
- Customers manage updates via WSUS



*Conceptual illustration only

Windows 10 IoT Mobile Enterprise servicing



Consumer uses

Windows 10 Mobile

All core features and functionality of mobile OS

Lockdown and multiuser role capability

Updates installed via Windows Update as they arrive

Keeping millions of consumers up to date and secure on the Current Branch

No royalty cost

Commercial
Production/Industry grade
Business uses



Windows 10 IoT Mobile Enterprise

All Windows 10 mobile features

Controlled updates with Current Branch for Business

No limit on enterprise signed applications

HW chassis flexibility for OEM to build device with integrated peripherals. (Only applicable to Windows 10 IoT Mobile Enterprise SKU)

Licensed through OEM or through VL for phones



**Flexibility
& Choice**

Controlling Windows 10 IoT Mobile Enterprise updates

Enhancements to the enterprise device update:

- Ability to locally host updates
- Controllable OS update install
- Ability to quickly test hotfixes
- Designate device maintenance time
- Ability to re-flash devices
- Unattended OS update installations

Suppression of privacy, consent and device pairing UI



- Enterprises can suppress privacy consent prompts and device pairing confirmation dialogs on Windows Mobile and Windows 10 IoT Mobile Enterprise devices
- Ability to provision and manage enterprise devices silently

Windows 10 IoT Core servicing considerations



Early adopter businesses
Maker scenarios
Consumer uses

AGILITY

Access to new technology
Microsoft to quickly implement
your feedback
Transparency on the road map
Enterprise-grade capabilities to
help you address the latest trends
in the market
Flexibility for mixed environments

Commercial
Production/Industry grade
Business uses



CONTROL

Stability
Fewer upgrades
Long support life cycle
Ample time to test and certify
Predictability
Update control key for
regulated use

Windows 10 IoT Core servicing models



Early adopter businesses
Maker scenarios
Consumer uses

Windows 10 IoT Core

Updates installed via Windows Update
Update as they arrive

Current Branch

Large and diverse user base helps
drive quality of the OS updates

IoT devices are up to date and secure

No royalty cost



**Flexibility
and Choice**

Commercial
Production/Industry grade
Business uses



Windows 10 IoT Core Pro

Update devices after features are
validated in the market

Current Branch for Business

Windows Update for Business

Control with WSUS

Low-cost licensing

Windows 10 IoT Core servicing capabilities

	Windows 10 IoT Core	Windows 10 IoT Core Pro
Capabilities	Current Branch (CB)	Current Branch for Business(CBB)
Recommended OEM use scenario	Consumer type devices	Enterprise devices
Value of the latest features as they are released	✓	✓
Ongoing security updates for the lifetime of the branch	✓	✓
SCCM/Intune hybrid support	✓	✓
Feature upgrade required to stay supported	✓	✓
WSUS support to stage and deploy updates by pulling from MU Catalog		✓
Several months to consume feature updates		✓
Ability to turn off auto updates and set maintenance window		✓

Windows 10 IoT Update Schedule

Windows 10 IoT releases and updates

First release December 2015

- Windows 10 IoT Enterprise
 - No new features compared to Windows 10 Enterprise RTM
- Windows 10 IoT Mobile Enterprise
 - Bits released for OEMs
- Windows 10 IoT Core
 - Bits released for OEMs
 - Servicing and Management added to Preview
 - New SKU to control updates (Windows 10 IoT Core Pro)

Next update release (LTSCB) due mid-2016

Windows IoT Mobile Enterprise – RTM features

- Controlled update – ability to locally host, test and deploy device updates
- Programmatic access to hardware – ability to programmatically control certain device radios (Bluetooth, cellular, and so on), control LED notifications, brightness settings
- OOB provisioning via barcode
- Step-up from Windows 10 Mobile devices – Enterprises can 'step-up' to the Windows 10 Mobile Enterprise license, which enables controlled updates and offers unlimited enterprise app sideloading
- 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 hardware
- Embedded Mode

Windows 10 IoT Core – RTM features

- Servicing and management capabilities
- The ability to control updates, turn off auto updates and set maintenance window and ability to use WSUS
- Protect customer data with BitLocker – Enterprise grade device encryption and secure key storage
- All Windows 10 IoT Core device platforms are certified for Azure IoT
- Cutting edge client speech recognition and vision technology
 - Computer Vision – OpenCV
 - Windows Sensor and Perception APIs
 - Speech Recognition and Synthesis APIs
 - Bing Cloud Speech
 - Project Oxford
 - Language Understanding Intelligent Service (LUIS-beta)

Module review

In this module, you learned about:

- Management approaches for Windows 10 IoT devices
- The Windows 10 IoT servicing models
- Edition-specific management and servicing issues
- The Windows 10 IoT update schedule





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