SAMSUNG

Samsung Knox & Business Services

JUNE 2020
Samsung Electronics

Market Dynamics

Enterprise Mobility : a New Normal

Mobile devices have become a key enabler for organizations to do things better and faster

93%

of workers who own
a smartphone use it
every day for work.

In fact, they spend

33%

of their work day
using their smartphone.

4 in 10

say their smartphone **will replace the
need for a traditional computer** in
a few years (26%), or already has (14%).

My smartphone will replace my PC :

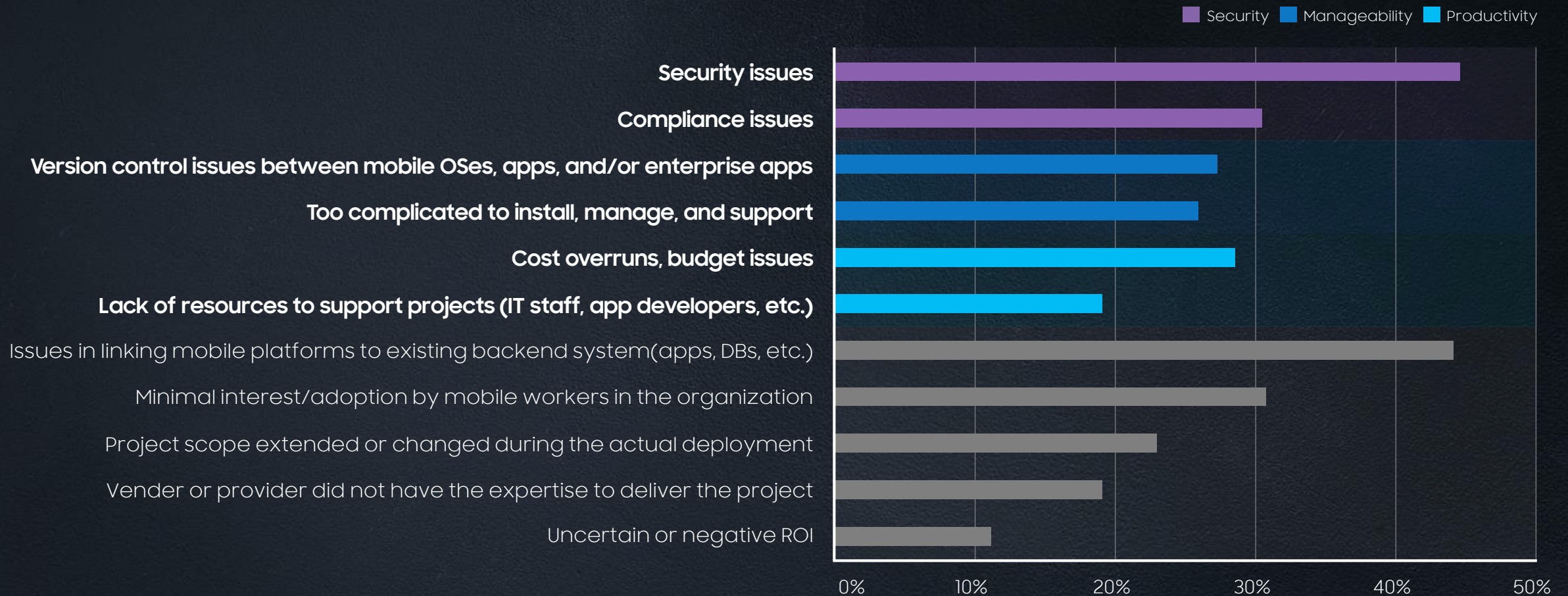|	
Already has	14%
In a few years	26%
Within 5 years	18%

Another 18% say it will happen
within five years from now.

[Source] Insight (New Study Shows Growing Role of Cellphones at Work (2017)

Samsung Has You Covered

Stay connected, protected and productive

Samsung Knox

Comprehensive suite of Samsung enterprise mobility solutions for security, productivity and manageability

Device Life Cycle

SECURE · · · · · · **DEPLOY** · · · · · · **MANAGE**

Samsung Business Services

Premium services designed for business Using Samsung mobile devices and Knox solutions

Software Customization Services

Enterprise Technical Support

Device Protection Services

WARRANTY
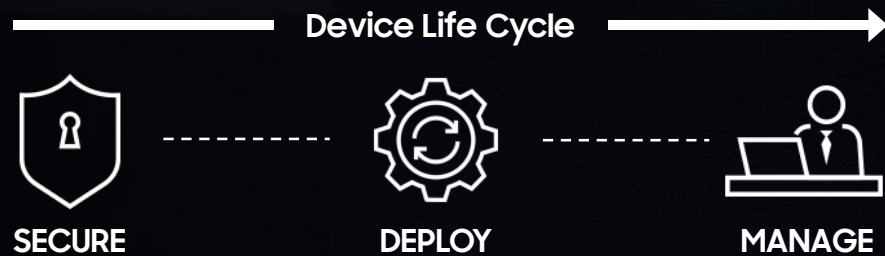
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Samsung Knox

Mainly consists of the Knox security platform and a series of Knox cloud solutions for IT

Knox Security Platform

- Defense-grade security built into Samsung devices

Knox Cloud Solutions for IT

- Streamlined device provisioning, enrollment, and configuration

- Comprehensive device, app, and OS version management

Secured by Knox

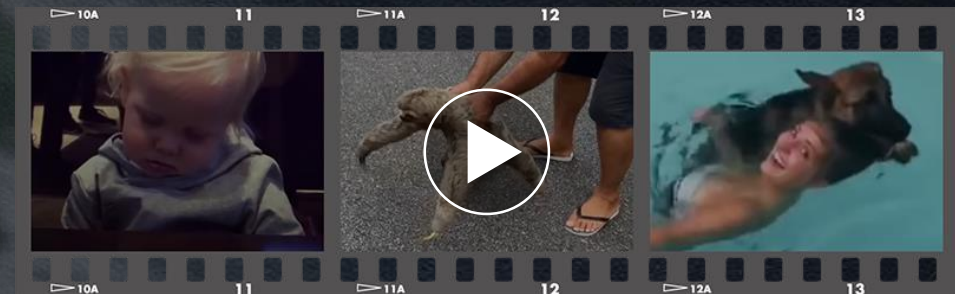# Secured by Knox : Protect What Matters to You

Security. It's in our DNA

Humans will be humans. They like what they like, and do what they do. We get it.

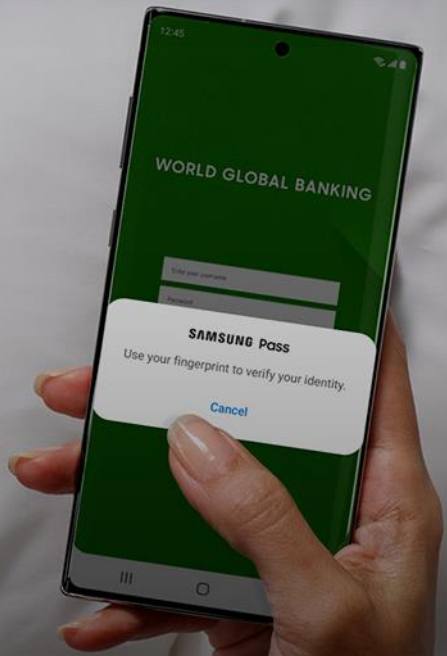**That's why we created 'Secured by Knox'.**

All designed around the way people really use their devices.
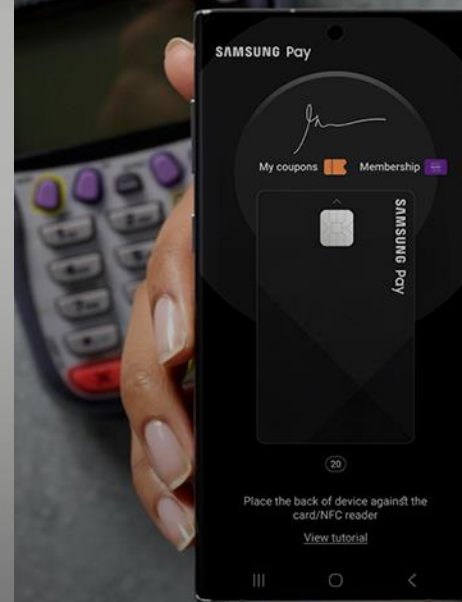
No matter where life takes you

Safeguard your personal data and passwords through Knox security platform

Secure passwords

Secure personal data

Safe transaction

Secure health data

Multi-layered Security Built to Protect

Knox integrates hardware and software that work together to give you the highest level of data protection

Manufacturing from the chip

• Samsung manufactures everything from the chip up

• Security from design to manufacturing and quality assurance

Data Isolation

• Sensitive data can be completely isolated in a secure place

Data Encryption

• Data stored and transmitted in an encrypted state

Run-time Protection

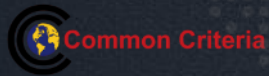• Samsung devices are always running in a safe state

Market Proven Since 2013

Knox has been widely adopted in the market and trusted by experts and government bodies

Secured **1B+** Devices

Managed **100M+** Devices

Supported **15K+** Businesses

Common Criteria

DISA (USA)

BSI(Germany)

ANSSI (France)

AIVD (Netherlands)

ISCCC (China)

FIPS 140-2 (USA, Canada)

NCSC (UK)

CCN (Spain)

Traficom (Finland)

STRK (Kazakhstan)

" *Knox has elevated the perception of Android as a secure, stable and enterprise-capable mobile OS* "

IDC 2018

Knox platform 3.2 received 27 of 30 Strong Ratings

Gartner 2019

Knox for Enterprise Mobility

Knox Journey for IT

Comprehensive suite of enterprise mobility solutions for security, productivity
and manageability, throughout the device life cycle

Device Life Cycle

Manufacturing & Supply

SECURE

- End-to-end device security
- Advanced and ever-evolving security
- Samsung's security governance

Initial setup

DEPLOY

- Automated device provisioning
- Mandatory EMM enrollment & configuration
- Fit for purpose with ease

In use for work

MANAGE
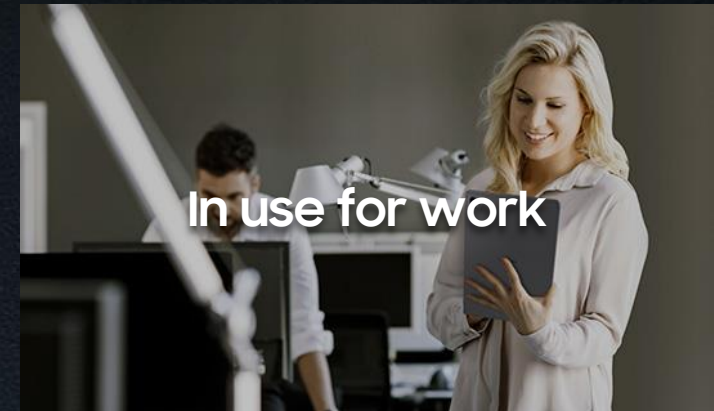
- Wide range of IT policies & devices
- Complete OS update management
- Available through various partner solutions

Advanced Security with Knox

Secured by Knox: Not All Android Devices are Equal

Device Life Cycle

Manufacturing & Supply

Initial setup

In use for work

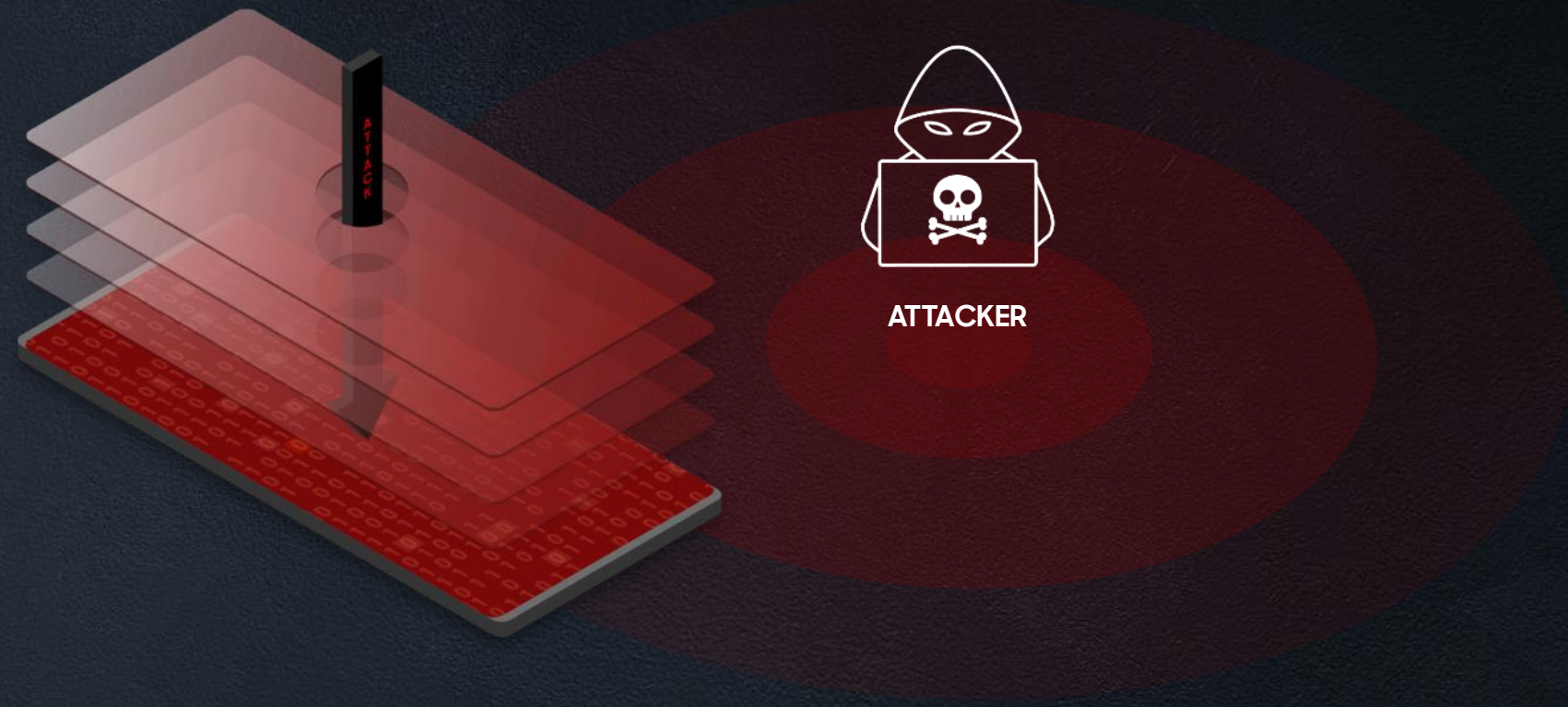**SECURE**

- End-to-end device security
- Advanced and ever-evolving security
- Samsung's security governance

There is no Such Thing as 'Enough' Security

'Enough security' is never enough

One security vulnerability could be all they need to take full control of the device

ATTACKER
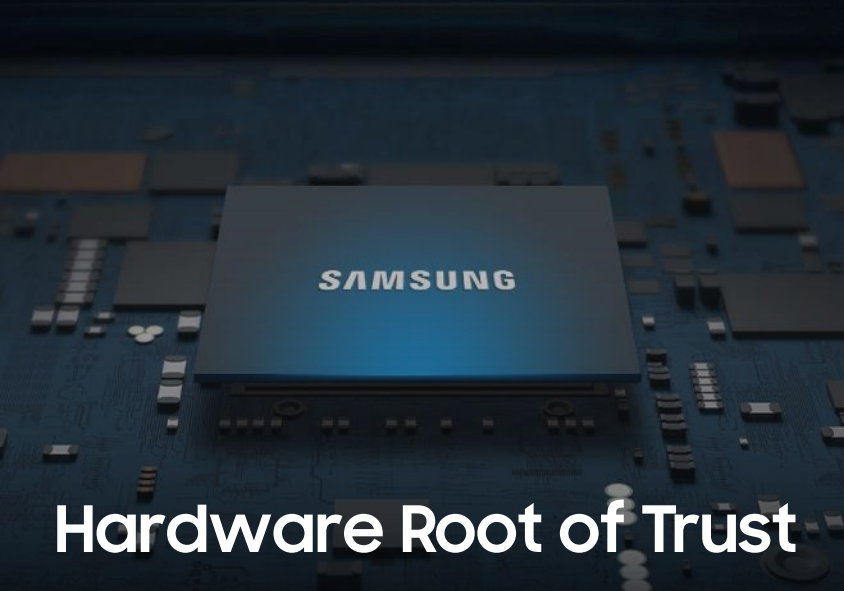
It is critical to secure the device **in every layer** and **at all times** to ensure device integrity

End-to-End Device Security

Hardware-based trusted environment ensuring device integrity, from manufacturing to booting to runtime

Manufacturing time

Booting time

Run time

Hardware Root of Trust

- Device unique hardware keys
- Accessible via an isolated area of chipset only

Build Trust

- Verifies integrity of booting components at every boot-up
- Prevents from loading an older firmware version

Maintain Trust

- Prevents unauthorized kernel access or code modification
- Sensitive data is kept encrypted even after device is powered on

Android Enterprise **Secured by Knox**

Advanced and Ever-evolving Security

Knox integrates hardware and software that work together to give you the highest level of data protection

Applications
Firmware
Kernel
Hypervisor
Chipset

SAMSUNG Knox Platform

Android Enterprise

Multi-layered Defense Grade Security

• Chain of defense mechanisms, encompassing HW, kernel, OS, and applications

• Protection from malware and threats

Extended Capabilities on top of AE *Android Enterprise

• Adding enhanced and unique value-added security capabilities

• Real-time Kernel Protection (RKP), Sensitive Data Protection (SDP), and more

Samsung's Security Governance

Security is the guiding principle behind every choice we make

Research

Security experts in R&D centers are working to make Samsung devices more secure everyday

Design

Every element of the device goes through a security review from the very early design

Assembly

Every component of hardware and every layer of software is security compliant

Manufacturing

Entire manufacturing process is under Samsung's full control

Streamlined Deployment with Knox

Transform into 'work devices' instantly

Device Life Cycle

Manufacturing & Supply

Initial setup

In use for work

SECURE

DEPLOY

- Automated Device Provisioning
- Mandatory EMM Enrollment & Configuration
- Fit for purpose with ease

Automated Device Provisioning

As soon as powered on, corporate devices are automatically provisioned, right out of the box

End-Users **Initial device boot-up**

Out-of-the-box Provisioning

"Corporate device confirmed!"

3 Accept device ID uploads

2 Upload device IDs

Enterprise Customer

1 Purchase devices from KDP* participating resellers

KDP*- Resellers
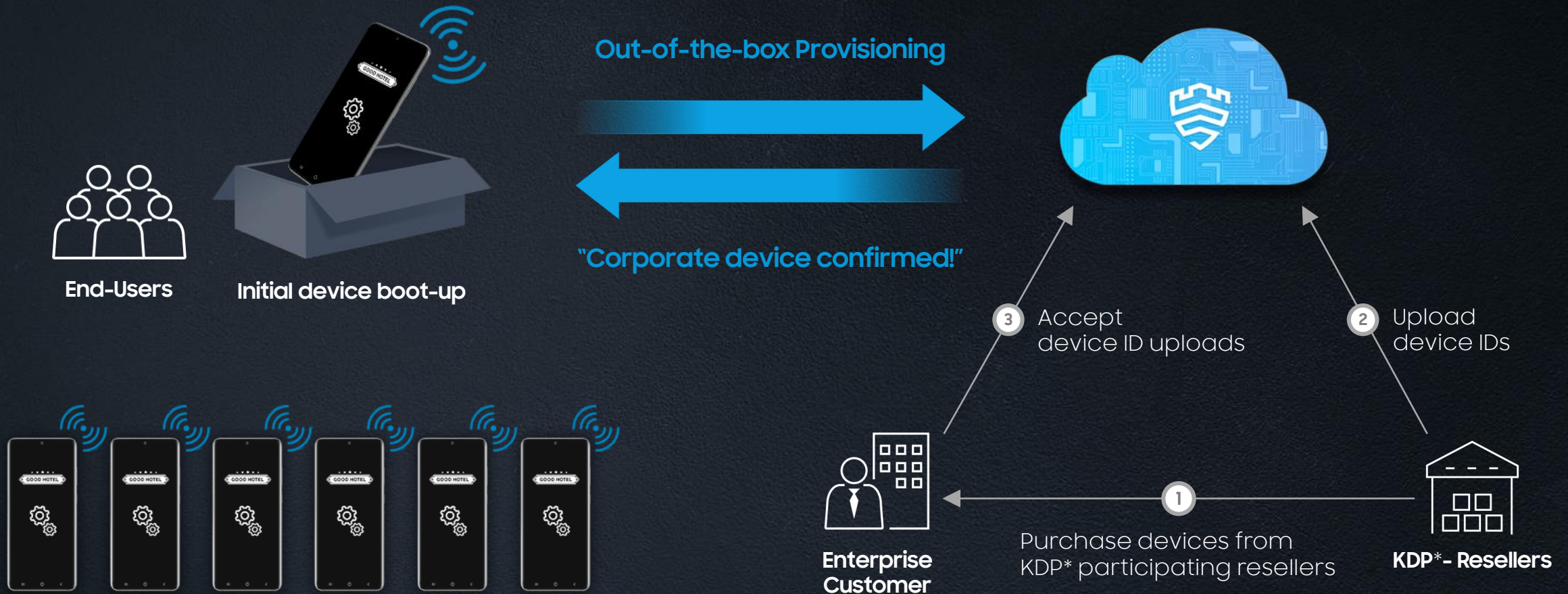
* KDP : Knox Deployment Program

Mandatory EMM Enrollment & Configuration

Makes device enrollment and configuration easier for both IT admins and device users

Power On & Connect

- End users to power on their devices and connect to Internet

- Allow end users to skip the setup wizard process

EMM Enrolled

- Your choice of EMM is pushed to employees' devices automatically

- Supported by Blackberry, Citrix, IBM, Microsoft, MobileIron, SOTI, VMware, Knox Manage, etc.

IT Policies/Settings Applied

- IT policies and configurations are automatically applied to the devices

- Auto re-enrolled and configured after factory reset

Fit for Purpose with Ease

Knox transforms standard Samsung devices into purpose-built appliances

Examples)

RETAIL

LOGISTICS
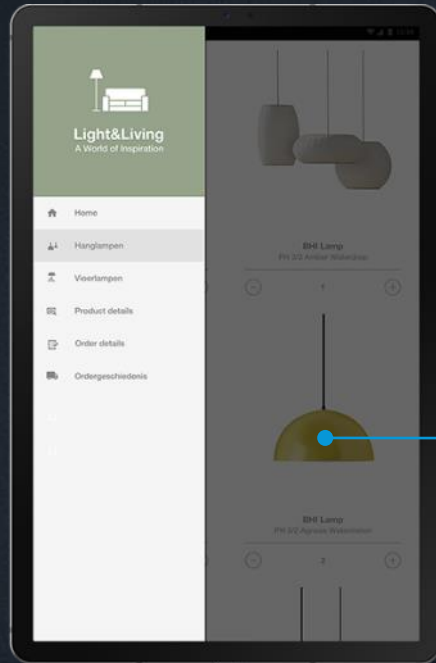
HEALTHCARE

- Prevent devices from going to sleep when plugged in

- Play screen saver when screen is off

- Auto power-off if idle for a certain period
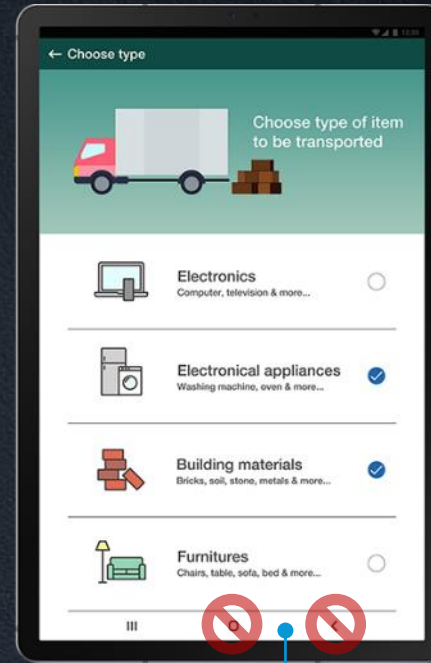
- Lock down device to a specific app
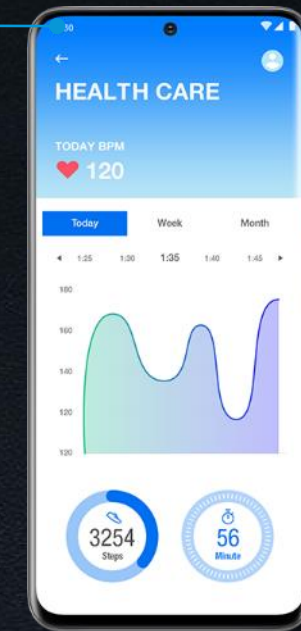
- Hide specific system notifications

- Remap specific hard keys

23

Versatile and Comprehensive Device Management

Make sure Samsung devices are always under IT control anywhere, anytime and in any industry

Device Life Cycle

Manufacturing & Supply

Initial setup

In use for work

SECURE

DEPLOY

MANAGE

• Wide range of IT policies

• Complete OS update management

• Available through various partner solutions

24

Ongoing Management Challenges

IT admins find it difficult to keep devices always safe and compliant*

Security patch
Real-time monitoring
Compliance* check
Remote support
Asset efficiency
⋮

Compliance violations

Security threats

IT Admin

End Users

Human mistakes

Lack of visibility

Vulnerabilities

* IT Compliance is the process of meeting a third party's requirements for digital security with the aim of enabling business operations in a particular market or with a particular customer

Wide Range of IT Policies

Providing a wide range of IT policies with its unique management capabilities to meet diverse compliance needs

Data-in-Transit Protection
Advanced VPN
Firewall

Device Inventory
Audit Log
Network Platform Analytics
Remote Control

UX Customization
App Mgmt.
Device Feature Mgmt.
Authentication / Lock
User / Account

USB
Wi-Fi
NFC
Bluetooth
Tethering
Call & Messaging Mgmt.

Knox Management Features

Data-at-Rest Protection
Dual DAR

Certificate Mgmt.
Universal Credential Mgmt.

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26

Complete OS Update Management

Remotely control or enforce which OS version is present on corporate-owned devices

Current Version(v9.0)   New (v9.2)   Newer(v10.0)

| Fully Tested | Fully Tested | Latest, but not Tested |

test and upgrade

OS Update Over-the-Air
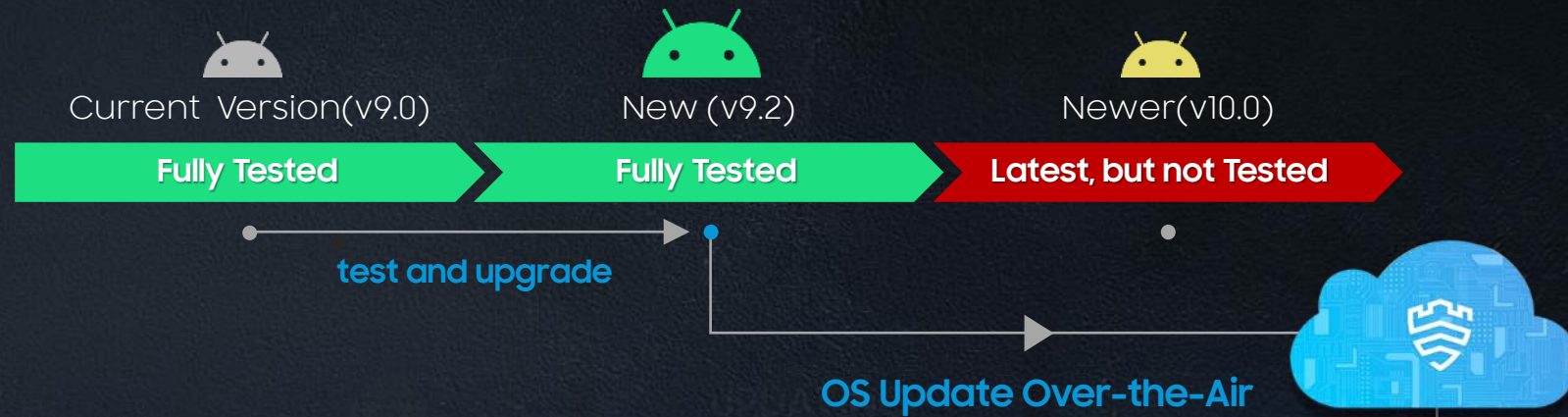
Mandatory Firmware Update
– Silently update without user interaction

Stable OS Deployments for Business Apps/Services
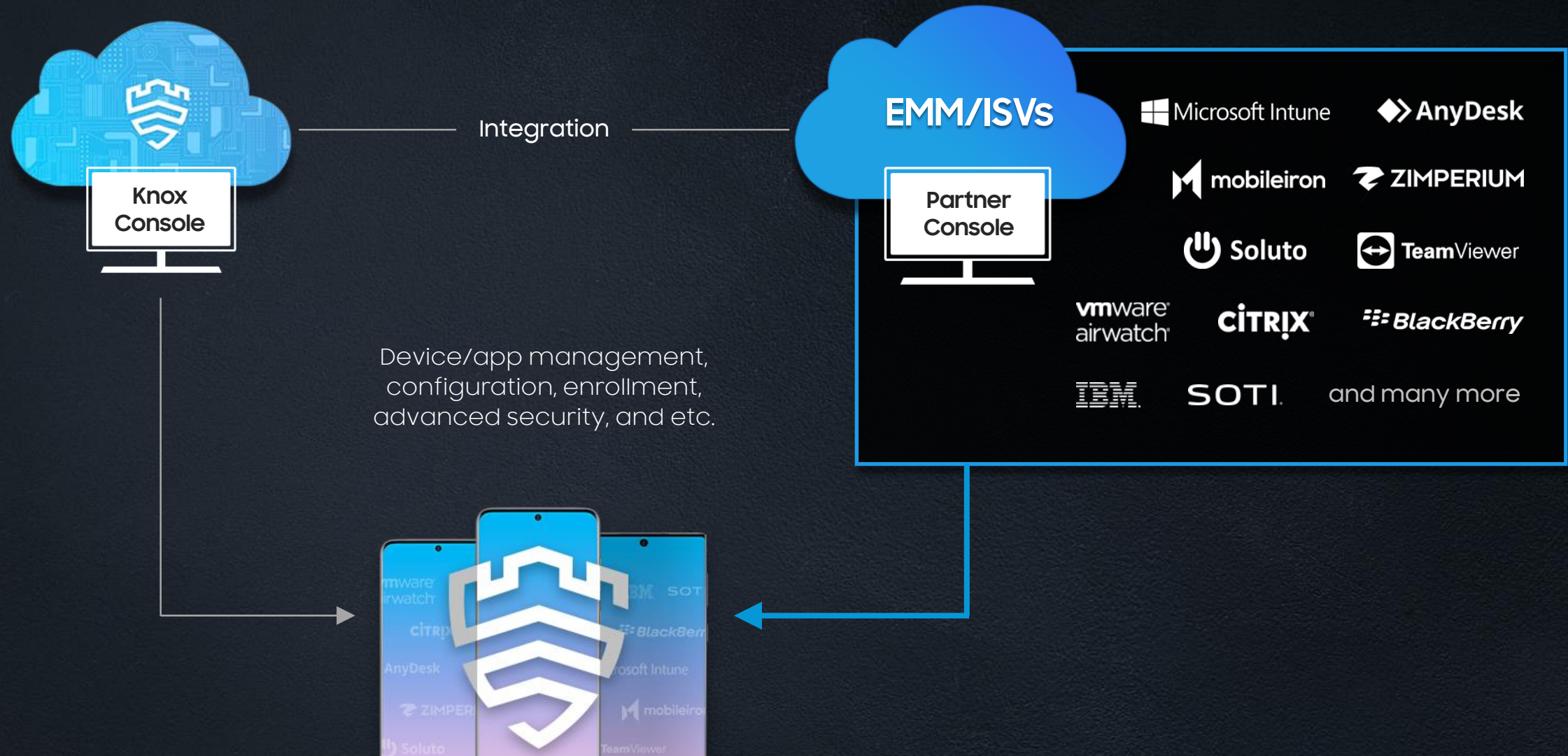– Select qualified OS versions to update after complete QA tests

Flexible OS Update Options
– Schedule update date and time
– Network options, minimum battery level, server location
  (e.g. only when connected to Wi-Fi and battery is above 60%)

Available through Various Partner Solutions

Ensuring Knox features are available to customers with various infrastructures and environments

Knox Console

Integration

EMM/ISVs

Partner Console

Device/app management, configuration, enrollment, advanced security, and etc.

Microsoft Intune

AnyDesk

mobileiron

ZIMPERIUM

Soluto

TeamViewer

vmware airwatch

CITRIX

BlackBerry

IBM

SOTI

and many more

Knox Products

Introducing Samsung Knox Suite

Designed to address diverse enterprise mobility challenges and needs
in terms of security, and management throughout the entire device lifecycle

Manufacturing & Supply	Initial setup	In use for work

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Knox Suite

SECURE
Highly secure devices in all aspects

DEPLOY
Productive and frictionless deployment

MANAGE
Versatile and comprehensive management

30

Why Knox Suite

Makes it easier for IT admin to use Knox IT solutions from purchasing and on-boarding to on-going usage of multiple components

Consolidated Offering

- ✓ **All-in-one Knox B2B package*** for 'secure/deploy/manage'

- ✓ **Single license key**, making it easy and convenient for IT admins to procure and mange licenses

Streamlined User Experience

- ✓ **Unified customer onboarding UX**, removing the hassle to separately sign up for individual services

- ✓ **Seamless IT admin user experience** between different Knox consoles

* Consists of Knox Manage, Knox Platform for Enterprise, Knox E-FOTA and Knox Mobile Enrollment

Overview

		Knox Suite	Knox Platform for Enterprise (via KSP)	Knox Mobile Enrollment	Knox Manage	Knox E-FOTA
SECURE	End-to-end device security		Samsung devices, **Secured by Knox**			
	Advanced and ever-evolving security					
	Samsung's security governance					
DEPLOY	Automated device provisioning	●		●		●
	Mandatory EMM enrollment & configuration	●		●		
	Fit for purpose with ease	●	●2)		●	
MANAGE	Wide range of IT policies and devices	●1)	●2)		●1)	
	Complete OS update management	●				●
	Available through various partner solutions	●	●	●		●

1)Knox Manage/Knox Suite support cross-platform : Android, iOS, Windows 10 (But, Android Legacy enrollment mode is not available in Knox Suite)
2)Available with KSP and EMM, Samsung Knox device only. Supported EMMs: Microsoft Intune, VMware, WorkspaceOne, BlackBerry, MobileIron, SOTI, IBM Mass360 and Citrix

Knox Platform for Enterprise

Designed to enable IT admins to safeguard corporate data at both the hardware and software level, removing the risk of being compromised on Samsung devices

Robust Data Protection

- ✅ Non-bypassable VPN
- ✅ Dual encryption of Data at Rest
- • Domain / internet filtering
  ⋮

Comprehensive Device Management

- • App mgmt. without Google Play
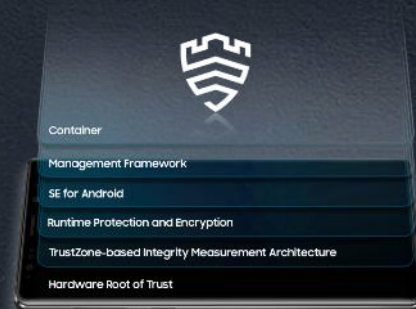- • DeX management
- ✅ Deep customization
  ⋮

Granular Device Monitoring

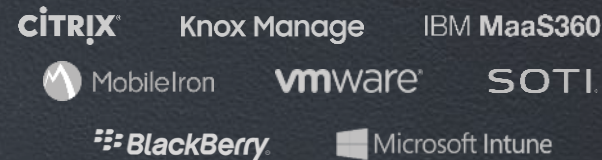- ✅ Network Platform Analytics
- • Remote control
- • Device inventory
  ⋮

Versatile Credential & Certificate

- ✅ Universal Credential Management
- • Certificate management
  ⋮

Container
Management Framework
SE for Android
Runtime Protection and Encryption
TrustZone-based Integrity Measurement Architecture
Hardware Root of Trust

Available with

CITRIX   Knox Manage   IBM **MaaS360**

MobileIron   **vmware**   SOTI

BlackBerry   Microsoft Intune

Market-proven, trusted security to forward your business

✅ Key Differentiation

Knox Mobile Enrollment

Makes device enrollment easier for both IT admins and device users

Automated EMM/UEM enrollment, out of the box

- Android Enterprise Device Owner mode support
- Device Admin mode support
- Mandatory EMM/UEM enrollment during setup wizard

Quick and simple device provisioning

- Skip Setup Wizard
- Automated EMM/UEM sign-in with specific user credentials pre-populated by IT Admin

Advanced enrollment management

- Automated re-enrollment even after factory reset
- Automated re-enrollment in case of unapproved removal of EMM/UEM agent by end users (for DA only)

Knox Manage   SOTI
vmware   Microsoft Intune

EMM/UEM

CITRIX   MobileIron
IBM MaaS360   BlackBerry   and many more

**Enrolled in your EMM, right out of the box**

Knox Manage

Simple and lightweight EMM for IT admins to monitor and manage devices,
and secure corporate data across multiple operating systems

Enforced device management & monitoring

- Silent app deployment
- Advanced location tracking
- Granular app/feature restrictions
- Powerful remote control
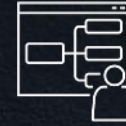- Multiple operating system support: Android, iOS and Win10
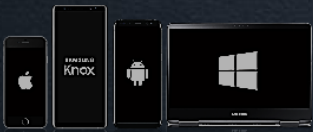
Highly optimized for Samsung devices

- Comprehensive support of differentiated Knox capabilities
- Full support of Knox Platform for Enterprise, Knox Mobile Enrollment and Knox E-FOTA

Remote support

Simple and easy user experience for IT

- Getting started guide
- Kiosk Wizard
- Event-based policy enforcement (based on specific time, network, app, geographical conditions)
- Mobile web console for IT

Kiosk wizard

Comprehensive Android Enterprise support

- Wide range of Android management support:

① Work profile management
② Full device management
③ Dedicated device management
④ Mobile app management via Managed Google Play

EMM made easy and affordable, yet powerful

Knox E-FOTA

Remotely control OS version on devices without end-user interaction,
enabling seamless update to a fully tested version on time

Mandatory Firmware Update

- Silent firmware update without end-user interaction
- Monitoring dashboard for update status

Security Patches | Bug Fixes | Feature improvements

Stable OS Deployment for Business Apps/Services

- Complete QA test before deployment
- Select qualified OS versions to stay or update

v9.0   v9.2   v10.0

Fully Tested | **Latest, But Not Tested**

Flexible OS Update Options

- Schedule OS update date and time
- Fine-tune network mode and bandwidth
- Power control
- Flexibility in server location

at a **specific time** or immediately | via **Wi-Fi only** or any network | min. battery % or when connected

Samsung Business Services

Samsung Business Services

Premium services designed for businesses using Samsung mobile devices and Knox solutions

Software Customization Services

Design Your Own Devices

Device software just for your business

Enterprise Technical Support

Maximize Business Continuity

Dedicated technical support, directly by Samsung

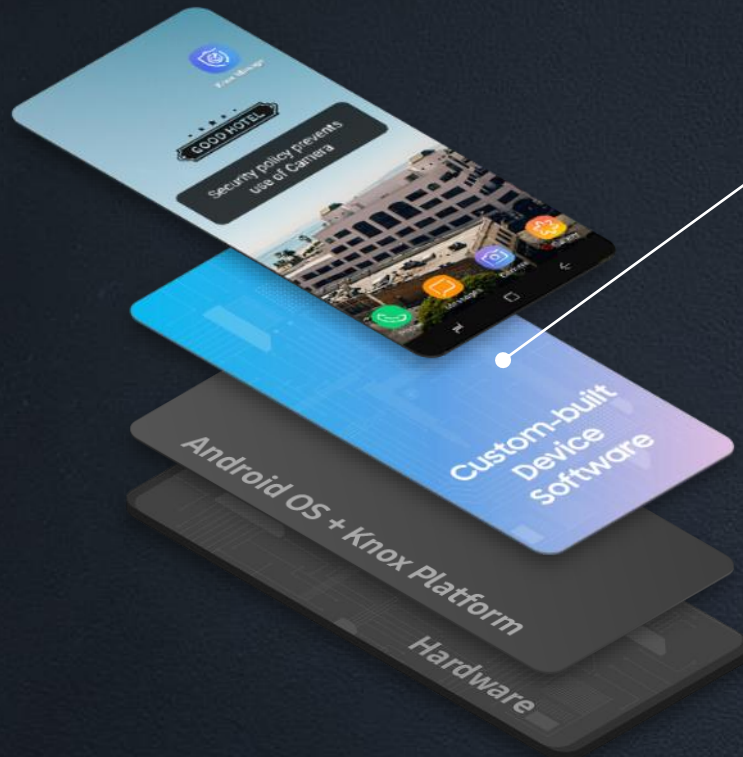**Device Protection Services**

Protect Corporate Devices from Damage

Extended warranty and damage handling

Software Customization Services

Designed to transform off-the-shelf devices into business-ready machines for specific customer needs

Design Your Own Devices (DYOD) for your business

Custom-built Device Software

Android OS + Knox Platform

Hardware

Support for Private Network and Peripherals

- Private network connection
- Tactical peripherals (e.g. radio antenna)
- Automated Bluetooth pairing

System-level Device UX Customization

- Higher touch sensitivity
- Context based device on/off (e.g. device power on when rear-door opens)
- Simultaneous use of speaker and ear-jack
- Customer app preloading & auto launch

On-demand Security Patch

- Security patch extension
  1) Frequency (e.g. bi-annually → quarterly)
  2) Period (e.g. 2 years → 4 years)
- Security patch for custom-built software

Enterprise Technical Support

Comprehensive support by dedicated Samsung expert engineers

1. Direct Access to Engineers

- Access to an experienced team of Samsung mobility experts

2. Support Account Manager (SAM)

- Dedicated support manager

3. On-site Support

- Expert engineer visit to customer site

4. Customer Analytics and Reporting

- Issues and resolutions
- Vulnerabilities and security patch schedules
- Product updates

5. Advantage Program

- Technical training
- Early access to new OS and solutions

* Availability varies by country

Device Protection Services

Protect your devices from any accidental, physical or liquid damage as well as technical or mechanical failure

Extended Warranty

- Extends the device **warranty for up to 3 years**
- Covers technical and mechanical failures of Samsung devices(including batteries)

Accidental Damage from Handling*

- **Covers your devices** from any kind of accidental damages during business use
- ✓ Screen repair
- ✓ Liquid damage repair

* Availability varies by country

Use Cases

Streamlined Device Provisioning and Configuration

Utility

Education

Manufacturing

Imdaad 🇦🇪

- Auto-downloading the route map app to have accurate route information

- Locking down tablets into multi-app kiosk mode with specific business apps for drivers

Madeira Department of Education 🇵🇹

- Installing Knox management agent as soon as the tablet is first turned on

- Preloading all apps and policies before students start using the tablets

Harley-Davidson 🇨🇿

- Providing a pre-configured Samsung device to each staff for an outdoor event

- Auto-installing the app needed to scan participant's e-ticket

44

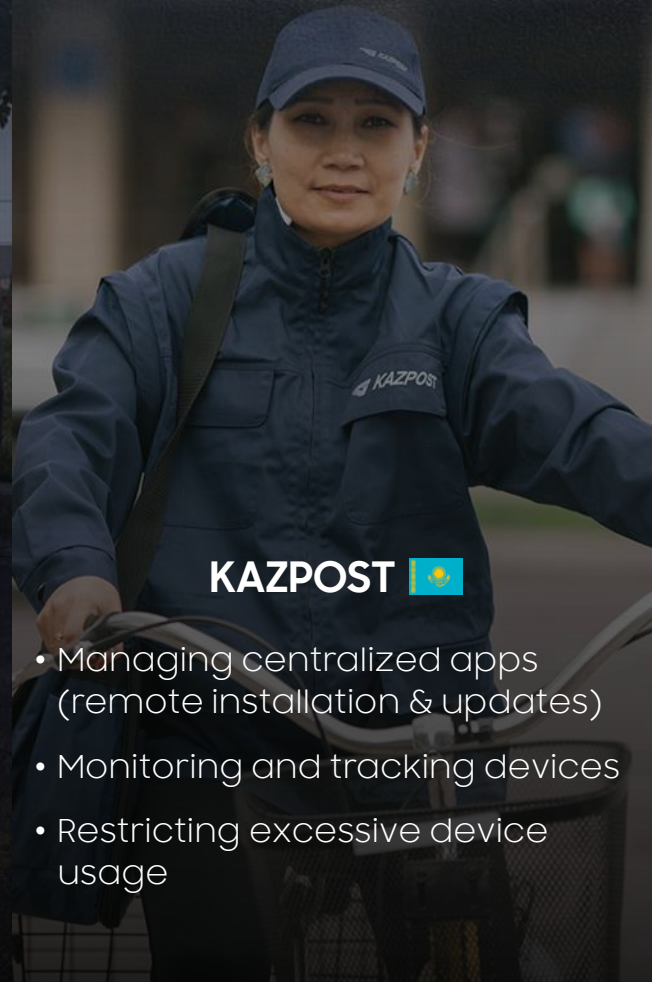# Advanced Device Security and On-going Management

Public

Waterloo Regional Police 🇨🇦

- Storing classified data in a secure container
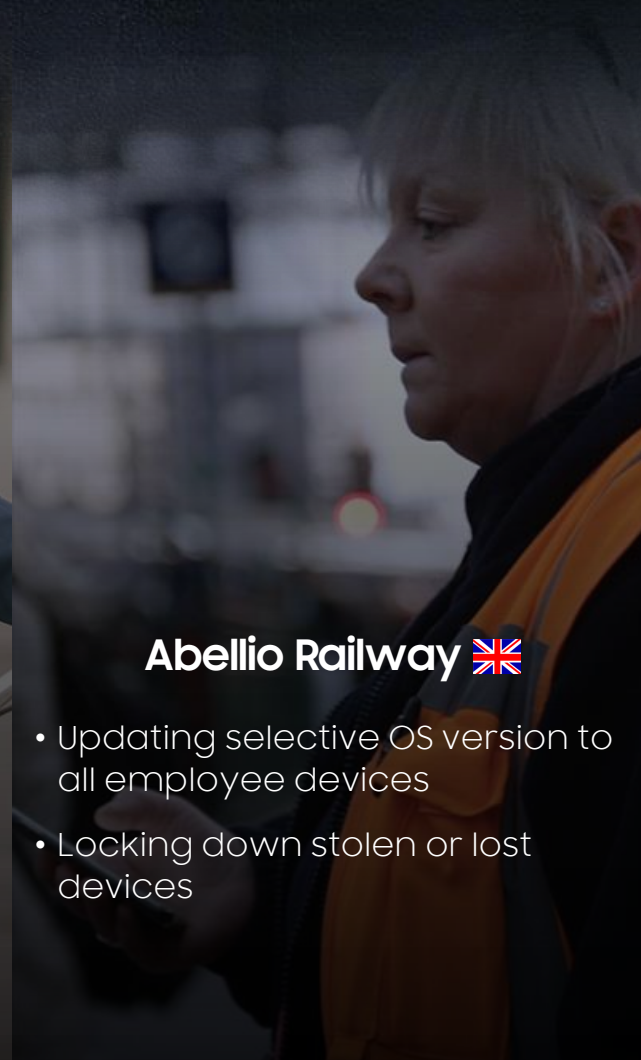- Managing devices and advanced security policies via BB UEM

Logistics

KAZPOST 🇰🇿

- Managing centralized apps (remote installation & updates)
- Monitoring and tracking devices
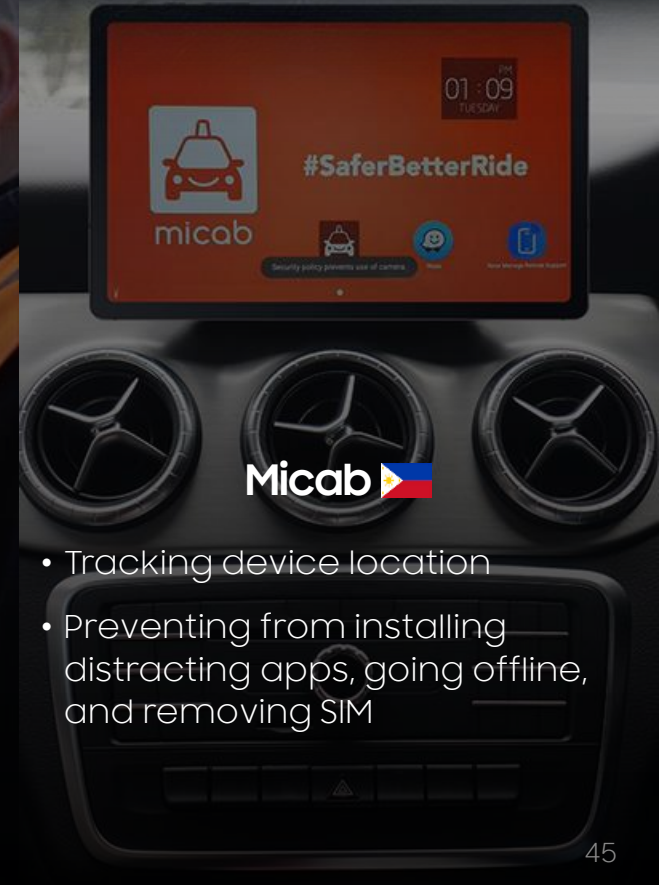- Restricting excessive device usage

Manufacturing

Abellio Railway 🇬🇧

- Updating selective OS version to all employee devices
- Locking down stolen or lost devices

Transportation

Micab 🇵🇭

- Tracking device location
- Preventing from installing distracting apps, going offline, and removing SIM

Customized Device SW to Meet Unique Needs

Automotive

BMW & Daimler 🇩🇪

- Preloading BMW and Daimler's apps on customized tablets
- Allowing rear seat passengers to control air conditioner, lights and play music

Military (Tactical Edition)

Armed Forces

- Supporting tactical peripherals
- Private network connection
- Customizing framework for secure communication
- Blocking all networks in the field

Logistics

Field Workers

- Preloading barcode scanner
- Providing higher touch sensitivity
- Extending security patch to comply with longer lifecycle

Education

Schools

- Preloading education apps & large contents
- Auto-launching kiosk mode at each boot up
- Minimizing preloaded apps

Premium Technical Support and Device Protection

Manufacturing

Evonik 🇩🇪

- Resolving issues on 3rd party apps with complex proxy configurations
  → Joint troubleshooting w/ Samsung experts

- Early accessing to new OS version to ensure compatibility with in-house apps

Retail

Appliance Retailer 🇩🇪

- Supporting integration of Samsung devices and Knox solutions with the existing backend infrastructure

- Collaborating with VMware to resolve EMM-related issues

Public

Government Agency 🇫🇷 🇮🇳

- Covering accidental physical or liquid damage
  – Front screen, back screen, and entire phone

- Supporting longer device lifecycle with additional warranty for +1 year

Visit **SamsungKnox.com** to :

1 Learn more

2 Try for free

3 Contact sales

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48

Thank you

Stay connected, protected and productive

End of Document