

PM451 (Android 9) Release Notes



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41.10 (Oct 17 2023)

- SDK: v3.25.01
- Security Patch: [2023-09-05](#)

Release Notes

PM451 VoC

(IMPROVED)	Requested to allow WPA protocol connection → Allowed to connect a SSID using the WPA protocol connection.
(FIXED)	Requested to fix the symptom that a wrong barcode is read instead of the aimed one (only for EX30 scanner). → Adjusted the default fixed offset.

EmKit

(NEW)	System Information: Added radio generation & antenna information in Radio > WLAN section.
	Program Buttons: Added flashlight function to map with a button. More> Turn on / off Flashlight using Hardware Button
	EmSettings: Added an option to select whether to use or not the manual screen rotation icon on the navigation bar. More> Disable Manual Screen Rotation Icon on Navigation Bar

ScanSettings

(NEW)	Added Intercharacter delay setting to deliver a delay time between each character of the decoded data. More> ScanSettings User Guide - Basic
	Added new PEW action, Change to lower case , to change all characters to lower case. More> ScanSettings User Guide - Extended Wedge (PEW)
(IMPROVED)	PEW > Send Delay action can be applied between the other actions.

Operating System

(NEW)	Added a feature that displays device information when scanning a special barcode. More > Check Device Information by Scanning Special Barcodes
	Added new battery health index in Settings > Battery for more accurate battery lifetime estimation.
	Added an ability to calculate the battery lifetime indexes by OS itself.
(IMPROVED)	Updated Iran Standard Time, IRST (Tehran) to UTC+03:30. More> Changed Iran Standard Time (Abolished Daylight Saving Time, DST)
	Added options to select the shutter sound between old (PM80's) and new (PM90's) in the Developer options > More. Find Camera Shutter Sound and turn on the switch to use old shutter sound.
	System restricts setup wizard proceeding when a provisioning configuration exists in the enterprise storage to wait for the automatic provisioning.
	Improved system update (FOTA) to display an error message to check why the update failed.
	System restricts not display of the power menu when the side scan button and power button are pressed at about the same time. (To prevent inconvenience caused by mis-pressing.)

Network

(IMPROVED)	Improved the private mobile network setting to have ability to automatic setting. <ul style="list-style-type: none">• More> Mobile Data Frequently Disconnects on Private LTE network
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41.09 (Mar 28 2023)

- SDK: v3.24.00
- Security Patch: [2023-02-05](#)

Release Notes

VoC

SCANNER	Added a setting making the trigger always turned on to support user applications running above the lock screen. More> ScanSettings User Guide - Basic - Always trigger enable
	Improved stability of SE965 scanner type's decoding procedure by blocking additional decoding while the previous decoding is in progress.

EmKit

(NEW)	EmSettings:
	1) Added settings for controlling the navigation bar, Hide navigation bar & Control button order. More > Hide On-Screen Navigation Bar
	2) Added ability to set notifications (sound & vibration) when pressing a button on the keypad. More> EmSettings Guide - Physical keypad settings
	3) Categorized settings and improved UI for intuitive recognition.

	<p>Program Buttons:</p> <p>1) Meta option for mapping the Ctrl and Shift key combination behavior easily.</p> <p>More> Map Direct Input Feature to Button (Including Meta Option)</p> <p>2) Added a feature to lock the touch action using a button.</p> <p>More> Lock Touch Screen Input</p>
	<p>Scan2Set: Added ability to use alias for Wi-Fi certificate when provisioning using QR code.</p> <p>More> Set Wi-Fi Certificate Alias When Generating QR Code for Provisioning</p>
(IMPROVED)	<p>Program Buttons: New smart remap feature and improved UI helps you remap and control the button functions easier.</p> <p>More> Program Buttons (V2) User Guide</p>
	<p>Direct Clone: Improved backup category name for better understanding of the listed applications</p>

Scanner / ScanSettings

(NEW)	<p>Added IP Send function that sends the barcode data to an IP address through TCP/UDP protocol.</p> <p>More> IP Send & RemoteWedge</p>
	<p>Added a setting to adjust the size of TouchScan button.</p> <p>More> ScanSettings User Guide - Basic - TouchScan</p>
	<p>Added a setting to exit the auto scan mode by button.</p> <p>More> ScanSettings User Guide - Basic - Auto Scan</p>
	<p>Added new PEW actions:</p> <ul style="list-style-type: none"> • Change to upper case: Changes all characters to upper case. • Send up to char / string: Sends only the part before a specific character or string. <p>More> [PEW] Send Data Up to Specific Character / String</p>
	<p>Added an option to read a QR code:</p> <ul style="list-style-type: none"> • with no quiet zone (low-contrast background) → No Quiet Zone • with out of standard finder pattern → Non square decoding <p>More> How to Read QR Code that is Out of Standard</p>

Device Settings

(NEW)	<p>Added a setting to use a floating action button to show/hide the virtual keyboard.</p> <p>More> Hide/Show Virtual Keyboard with Floating Button</p>
(IMPROVED)	<p>Improved system update (FOTA) to display an error message to check why the update failed.</p>

Operating System

(NEW)	<p>Enterprise Storage: Added availability to custom boot animation using enterprise storage.</p> <p>More> Custom Boot Animation</p>
(IMPROVED)	<p>Hot Swap Mode: Enhanced stability of hot swap mode by restricting the time to enter hot swap mode to the time of completion of booting.</p>

Keypad

(IMPROVED)

Default mapped features of SoftLeftKey & SoftRightKey has been changed based on user experience.

	Before	After
SoftLeftKey	LeftPttKey	AppSwitchKey
SoftRightKey	DoScan	BackKey

Network

(NEW)	Added a setting for PNO (Wi-Fi preferred network offload) Scan Interval. More> Instruction of WLAN Detail Settings
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41.08 (Jul 11 2022)

- SDK: v3.21.06
- Security Patch: 2022-06-05

Release Notes

<New / Improved Functions on PM451 >

Added / Improved Functions
For more detail, check the release notes from Service Portal.

41.07 (May 24 2022)

- SDK: v3.21.06
- Security Patch: 2022-04-05

Release Notes

Find the VoC related to 41.07 version on the below table.

Location	VoC	Improvements
Korea	Requested to prevent occurring KeyEvent twice after changing key via KCM file	Improved not to occur KeyEvent twice when the key is set as fallback behavior • Related article (Log-in required)
Europe	Requested to apply keystroke method when transmitting the decoded data	Available to choose between Keyboard Event (Multiple) and Keyboard Event (Single) • Related article
U.S.	Requested to support the scanner wedge function that trims the last digits of the data	Added Remove back to action to PEW

<New / Improved Functions on PM451 >

Added / Improved Functions
<ul style="list-style-type: none">Google security patch (2022-04-05)
<ul style="list-style-type: none">[EmLogTool] Expanded available log types (see below list) and improved user experience design<ul style="list-style-type: none">Logcat with configurable buffersKernel messageSnapshotTracesWLAN DriverTCPDump
<ul style="list-style-type: none">[Scanner] Segmented the result type of Keyboard Event to Keyboard Event (Multiple) and Keyboard Event (Single), to ScanSettings to meet more various scanner use case

41.06 (Feb 25 2022)

- SDK: v3.21.01
- Security Patch: 2022-01-05

Release Notes

Find the VoC related to 41.06 (Feb 25 2022) on the below table.

Location	VoC	Improvements
Korea	Requested to add a function to restrict USB module connection	Added API to the system Also supported through Scan2Stage (From v10.1.2 and compatible client app)
	Requested smooth restoration KCM file through Direct Clone	Supported by making the appropriate directory for KCM file when the directory is not existing
U.S.	Requested to add WLAN log option	Added WLAN log menu in EmLogTool
	Requested to remove the File Download dialog during provisioning through Scan2Set	Removed the dialog when the file overwrite checking is not required
Japan	Requested to prevent writing a wrong string to an NFC tag URI type	Changed inappropriate URI record byte

<New / Improved Functions on PM451 >

Added / Improved Functions
<ul style="list-style-type: none">(Enterprise Storage) Added a function to reset the enterprise storage
<ul style="list-style-type: none">(Enterprise Storage) Supports AutoInstall feature for apk file in enterprise storage
Related article

41.05 (Nov 22 2021)

- SDK: v3.21.0
- Security Patch: 2021-10-05

Release Notes

Find the VOC related to 41.05 (Nov 22 2021) on the below table.

Location	VoC	Improvements
U.S.	Requested to simplify the QR code provisioning process in Setup Wizard screen	Provisioning process will be started once scanning the QR code, without launching Scan2Set manually
	Requested to support Enterprise storage	Added /enterprise/usr/ storage which can be used for backup the provisioning data (Related article)
	Requested a way to identify information that barcode data came from	Added new intent field, Source of Scanner

<New / Improved Functions on PM451>

Added / Improved Functions
<ul style="list-style-type: none">• Google Security Patch Update (2021-10-05)
<ul style="list-style-type: none">• (Scanner) Reduced Quiet Zone
<ul style="list-style-type: none">• (Scanner) Disabled power save mode by default to prioritize performance
<ul style="list-style-type: none">• (WLAN) Updated Detail Settings for 5G preference roaming

41.04 (Aug 24 2021)

- SDK: v3.19.29
- Security Patch: 2021-07-05

Release Notes

Find the VOC related to 41.04 (Aug 24 2021) on the below table.

Location	VOC	Improvements
Korea	Requested to add a Key Macro function on Program Buttons	Added the Key Macro function on Program Buttons in EmKit EmKit > Program Buttons > PROPERTIES > Select a key and tap KeyMacro
	Cannot enter characters consecutively by physical keyboard on the Note Application	Fixed to allow entering characters continuously with the physical keyboard

U.S.	Scan beam keeps on when pressing the scan button while entering the suspend mode by pressing the power key	Changed to perform the scanner suspend process right after screen-off to prevent that scan beam keeps turned on while processing the other action
	Added "Telstra.internet" APN name (Telstra internet doesn't work)	

Check the new and improved functions on PM451

Added / Improved Functions

- [WLAN] Applied patch for FragAttacks to strengthen security vulnerabilities that affect Wi-Fi network

- [WLAN] Added a Wi-Fi Scan Throttling function ([Wi-Fi Scan Throttling Setting](#))

- Changed Navigation Key positions

	Left	Center	Right
Before	Back	Home	Recent
After	Recent	Home	Back

- Changed UI to display IMEL/IMSI information on EmKit > System Information

- Removed MobiControl application in EmKit

- [Scanner] Improved the Scan Success Beep sound

41.03 (May 28 2021)

- SDK: v3.19.27
- Security Patch: 2021-04-05

Release Notes

Find the VOC related to 41.03 on the below table.

Location	VOC	Improvements
U.S.	Scan beam keeps on when pressing the scan button while entering the suspend mode by pressing the power key	Changed to perform the scanner suspend process right after screen-off
Malaysia	Keypad is not working on the pop-up dialog of the client's 3rd party solution application	Fixed by applying Focus patch on Android 10

Check the improved and added functions on PM451.

Added / Improved Functions
<ul style="list-style-type: none"> Support checking OS version on Setup wizard

- Display trigger enable status on notification icon of scanner (

Trigger Enable / Disable Indication

)

- Support PowerLauncher lock in timeout

- Added Korean & Chinese (Pinyin) language pack for Gboard

- Added back button on pages of System Information in EmKit

- Added Australia emergency number to the emergency list

- Applied new Scan Success beep sound

- Blinking LED 5 times and power-off when trying to power on with low-battery