

EVOLVE

EVOLVE Technical Training Package

Kok Ming Ng- Wave Device CPE Lead, Yuan Po Hng - Wave Device CPE,
Anoop Sehgal- Wave Device Engineering, Meow Ling Ng - PDM



MOTOROLA SOLUTIONS

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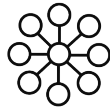
PRODUCT OVERVIEW

Key features



Resilient and rugged

- Dustproof and submersible IP68
- Glove operable touch screen
- Built to withstand repeated drops
- Long life and replaceable battery



Seamless connectivity

- 3G and 4G LTE cellular connectivity², private LTE²,
- Wi-Fi and Wi-Fi hotspot
- Dual SIM capability
- Ideal companion for WAVE PTX™



Mission-critical

- Dedicated emergency and PTT buttons
- Loud, clear audio
- MIL-STD-810



Open architecture

- Android platform
- Open app ecosystem
- Centralized device management



Intuitive user experience

- Simple interface
- 5" touch screen
- Front and rear facing cameras

Two models available

- Standard Model
- Intrinsically safe model¹

1. Intrinsic safety certification only applies to the intrinsically safe model, when fitted with the Motorola Solutions UL approved battery.
2. Use Evolve on the Verizon network in the USA and private LTE networks in the USA and Canada.



BUILT FOR ANY ENVIRONMENT

Rugged and resilient

- Dustproof and submersible IP68 rated and MIL-STD-810 tested
- Liquid-resistant, glove-operable display with rugged Gorilla Glass
- UL 913_5 and CAN/CSA C22.2 NO. 157-92 intrinsically safe models for use in hazardous locations

Power for multiple shifts

- Long-lasting 2900mAh or 5800mAh battery options¹
- Easily replaceable batteries for multi-shift use

Superior audio quality

- 2W loudspeaker with 97 Phon loudness level
- Three microphones for superior noise suppression and echo cancellation
- Accessories to support clear communication in any environment

Manufacturing



Distribution
and
warehousing



Mining and Oil
and gas



Transportation
and Logistics



Education



Healthcare



EVOLVE DESIGN



Fixed LTE antenna

Emergency button

Channel rocker

Digital mic 2

Power/
volume
knob

Front camera 8MP

Digital mic 1

Accessory
connector
(Single pin locking)

USB charging port

5" touch screen

Home, Back and
Recent buttons

Digital mic 3

Rear camera 13MP

LED flash

Battery latch

Push-to-talk button

3-dot programmable
feature button

1-dot programmable
feature button

2-dot sleep/wake or
programmable button

External charging
contacts







Battery door (battery internal)












Supports full WAVE PTX feature set

Basic (collaboration)

-  PTT communications
-  Text messaging
-  Location services
-  Photo & video sharing
-  Real-time presence
-  Voice message fallback

Safeguard (command)

-  Emergency calling
-  LMR interoperability³
-  Location based communication
-  Ambient listening
-  Remote user check
-  Discreet listening
-  Enable/disable

Add on options

-  Video streaming

³ WAVE PTX LMR interoperability supports donor radio, MOTOTRBO IPSC, Capacity Plus, Capacity Max, DIMETRA Express and ASTRO

EVOLVE ACCESSORIES



Audio solutions



WM500 WIRELESS REMOTE SPEAKER MICROPHONE
Wireless RSM compatible with WAVE PTX.
PMMN4127



RM250 WIRED REMOTE SPEAKER MICROPHONE
Wired RSM compatible with WAVE PTX.
PMMN4125



EARPIECE WITH LOUD AUDIO TRANSLUCENT TUBE
1-wire surveillance kit with translucent eartube and in-line PTT/microphone
PMLN8191*

*Intrinsically certified



EP910W WIRELESS EARPIECE WITH PTT BUTTON
Volume up/down, PTT button and noise cancellation, Includes micro-USB cable for charging, earbud replacements available.
PMLN8123



WP300 WIRELESS BLUETOOTH CONTROL POD WITH PTT BUTTON
Bluetooth device for wireless connectivity to radio functions such as volume, push-to-talk and emergency buttons.
PMLN8298

Carry solutions



3" BELT CLIP
Meant to be used with PMLN6970.
PMLN7965



2.5" BELT CLIP
Meant to be used with PMLN6970.
NTN8266



PLASTIC CARRY HOLSTER WITH NO CLIP
PMLN6970

EVOLVE ACCESSORIES



Battery solutions



**STANDARD
2900MAH
LI-ION BATTERY**
BT000592A01



**HIGH CAPACITY
5800MAH
LI-ION BATTERY**
BT000593A01



**INTRINSIC SAFE (I.S.)
HIGH CAPACITY
5800MAH
LI-ION BATTERY**
BT000594A01

Charging solutions



**MULTI-UNIT
CHARGER**
PMPN4564



**VEHICULAR
POWER ADAPTER**
PMPN4169



**MICRO USB
POWER ADAPTOR**
PS000150A11 (US)

TROUBLESHOOTING GUIDE

Device Registration and Activation

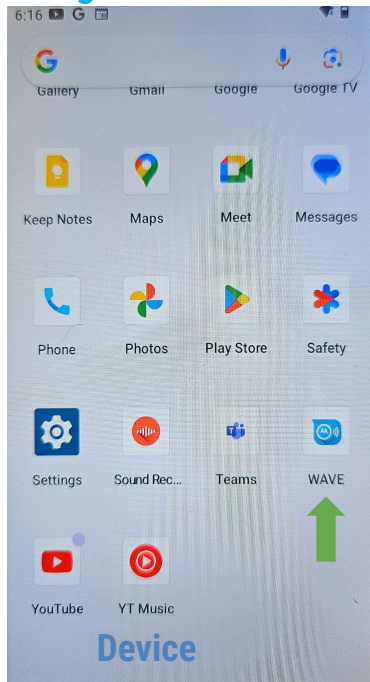


Note: The device need to be on the latest SW version R2.0 so that the physical PTT button will work with apps you downloaded from apps store. [EVOLVE Release Notes R02.00.14](#)



One App (Preloaded Apps)

1. Show as WAVE in the device
2. Register the device in Wave portal using S/N and IMEI



WAVE PTX Portal

Devices & Users (822)

All Devices Users

Search

Page 1 of 17

Display Name	User Type	Tier Package
<input type="checkbox"/> #BYOD 001	Tablet	WAVE PTX MOBILE APP - SAFEGUARD
<input type="checkbox"/> .DISPATCH 002	Wave Dispatch	WAVE PTX DISPATCH - SAFEGUARD
<input type="checkbox"/> A1_FLUS	Tablet	WAVE PTX MOBILE APP - SAFEGUARD
<input type="checkbox"/> A2_FLUS	Tablet	WAVE PTX MOBILE APP - SAFEGUARD
<input type="checkbox"/> Adelina Dispatch	Wave Dispatch	WAVE PTX DISPATCH - SAFEGUARD
<input type="checkbox"/> Aimi	Wave Dispatch	WAVE PTX DISPATCH - SAFEGUARD
<input type="checkbox"/> ANA_dISPATCH_PROD	Wave Dispatch	WAVE PTX DISPATCH - SAFEGUARD
<input type="checkbox"/> ANIS_DISPATCH	Wave Dispatch	WAVE PTX DISPATCH - SAFEGUARD
<input type="checkbox"/> Azah Evolve 0076 WAVE PTX	Tablet	WAVE PTX MOBILE APP - SAFEGUARD

Portal



One App (Preloaded Apps)

2. Register the device in Wave portal using S/N and IMEI

WAVE PTX Portal

Register Devices

1 Add Device | 2 Clone & Configure | 3 Review & Submit

Read before you start
Please select 'MAC Address' for Wi-Fi only devices like TLK 25 WiFi

Guidelines for Display Name
Use unique, pronunciation-friendly names with alphanumeric characters for contacts and talkgroups. Avoid using special characters ! # ? and abbreviations.

IMEI Number/MAC Address*
Select Enter IMEI/MAC Address

Serial Number*
Enter Serial Number

Display Name*
Enter Display Name

Device Type
--

Tier Package*
Select Tier Package

Add-on Package

+ Add New Device

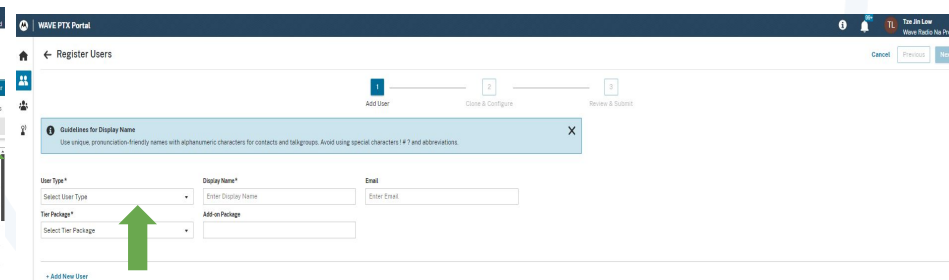
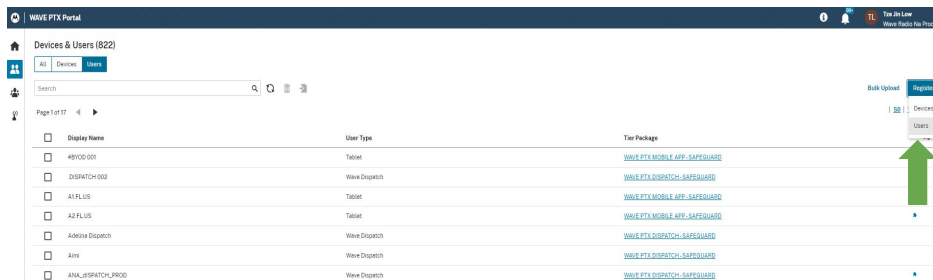
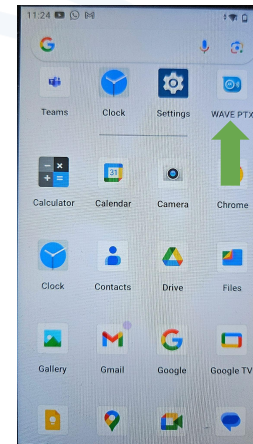
3. First time launching apps, allow all permission Make phone calls, Location, display over other apps and etc

4. Device is ready to use for use.



BYOD Apps

1. Prerequisite (One Apps is not running)
 - Setting → Apps → Disable
2. Download from Playstore
 - Log in to playstore using gmail account
 - Download and show as WAVE PTX
3. Register in Wave Portal
 - Create user account as Tablet (Add user → Mobile OR TABLET)





BYOD Apps

3. Register in Wave Portal

- Create user account as Tablet (Add user → Mobile OR TABLET)
- Generate code to register

The screenshot displays the 'WAVE PTX Portal' interface. The main section is titled 'Devices & Users (822)'. Below this, there are tabs for 'All', 'Devices', and 'Users'. A search bar is present, with a green arrow pointing to it. A context menu is open over the 'BYOD IT 2' user, with the 'Generate Activation Code' option highlighted. A green arrow points to this option. The table below shows a list of users and their associated devices.

Display Name	Tier Package
<input type="checkbox"/> BYOD C1	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> BYOD IT 1	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> BYOD IT 2	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> BYOD IT 3	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> BYOD IT 4	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> Cal_0193_Wave	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> Cal_0142-Wave	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> Chris	WAVE PTX MOBILE APP-SAFEGUARD
<input type="checkbox"/> OKDispatch	WAVE PTX DISPATCH-SAFEGUARD
<input type="checkbox"/> CPE_DRIVE TEST	WAVE PTX MOBILE APP-SAFEGUARD

- First time launching apps, allow all permission make phone calls, Location, display over other apps and etc and put in the activation code at the last step.



BYOD Apps

5. Talk group and contacts can be manage in Portal.

The screenshot illustrates the process of managing a PTT user in the WAVE PTT Portal. It is divided into two parts: a user list and a user details view.

Top Screenshot: Corporate Management - PTT Users (1)

- Search bar: yuan
- Table with columns: Name, Phone Number, Client Type, State, Permissions.
- Row 1: CPE_YuanPo_PTX_MyHP, +60165013917, Cross Carrier Standard, Provisioned, Administrator and User.
- Actions: Eye icon (visibility) and Edit icon (pencil).

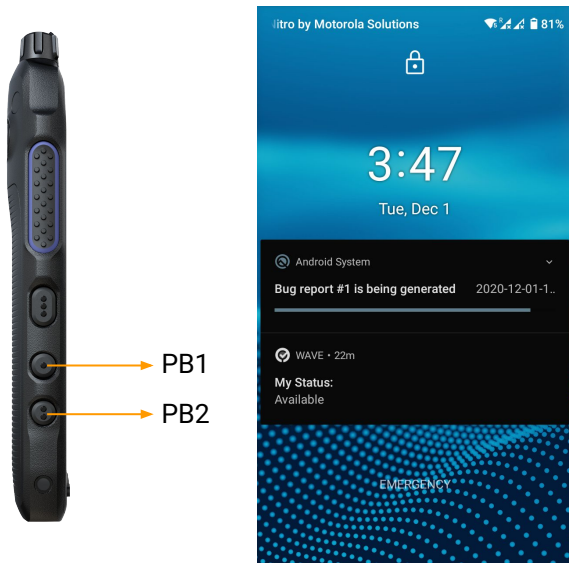
Bottom Screenshot: PTT User Details

- Section: CPE_YuanPo_PTX_MyHP
- Basic Information:
 - Name: CPE_YuanPo_PTX_MyHP
 - Client Type: Cross Carrier Standard
 - Phone Number: +60165013917
 - Billing Number: +60165013917
 - State: Provisioned
 - Email ID: yuanpo@motorolasolutions.com
 - Activation Code: [input field]
- Permissions: Administrator and User, Authorized User
- Contacts (0) | Talkgroups (0) | Features
- Search: Search by Name or Phone Number
- Table with columns: Name, Phone Number, Client Type.
- Message: No contacts assigned. [click here add](#)

A large grey arrow points from the user list to the details view, and three green arrows point to the search bar and table columns in the details view.



Radio Diagnostic (Device Log)

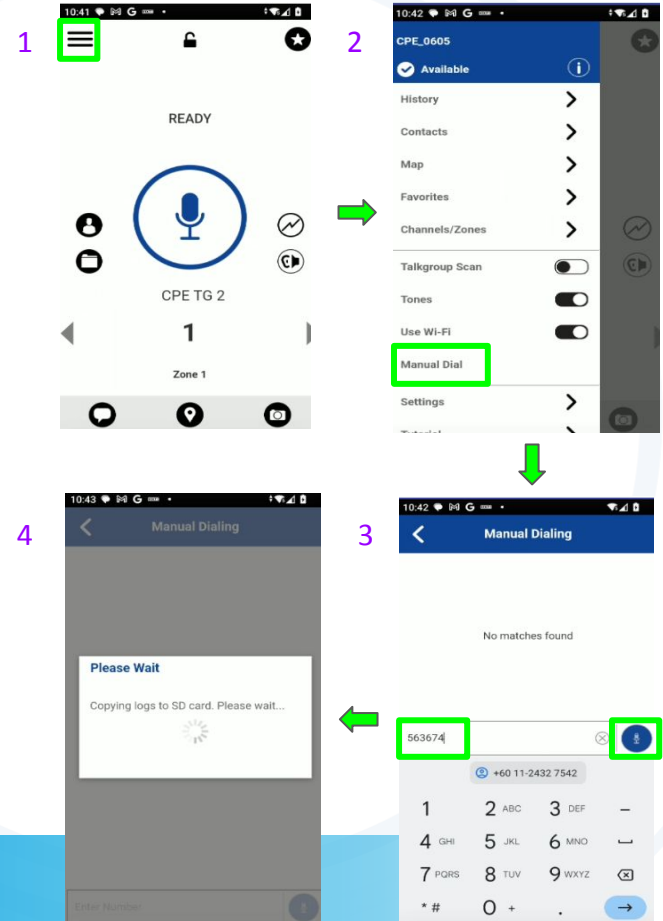


- Diagnostics can be captured using WAVE portal similar to WAVE or SLN devices, or through radio UI by pressing PB1 & PB2 buttons simultaneously
- Diagnostic log levels settings change are not required.
- Diagnostics can be uploaded to WAVE server
- Diagnostics can be uploaded over USB from folder \EVOLVE\Internal shared storage\Log\bugreports or shared with MSI using email/chat/etc.

Radio Diagnostic (PTT App Log)



1. In WAVE apps menu, click on menu.
2. Select manual dial
3. Enter the security key '563674' and press the PTT call button
4. PTT app log file will be available in SD card or device storage folder "Internal Storage>Documents>PTT" if SC card doesn't exist.
5. Share the PTT app log with MSI using email/chat/etc.



QUICK/SIMPLE WORKAROUNDS TO GAIN MINIMAL FUNCTIONALITY FROM THE PRODUCT UNTIL IT CAN BE REPAIRED





If the device appears to have become sluggish or has lost some functionality or is unresponsive then the following sequence of actions might help remedy the situation.

1. Reboot the device using the power switch or by removing the battery and re-inserting.
2. Clearing the data and cache of the application that is misbehaving.(e.g,Settings-> Apps -> WAVE-> Data & Cache -> Clear data and Cache
3. If cellular connectivity or Wifi connectivity issue is seen, then reset the connectivity configuration. Settings-> System-> Reset Options-> Reset Wi-Fi,mobile & Bluetooth
4. Final remedy is to perform factory reset. Settings->System->Reset options->Factory Reset

PROGRAMMABLE BUTTONS



1. Swipe up, tap  **Settings** → **Buttons** → **Programmable buttons**.
2. Select one of the following options:
 - **Programmable button -1- short press**
 - **Programmable button -1- long press**
 - **Programmable button -2- long press**
 - **Programmable button -3- short press**
 - **Programmable button -3- long press**
3. From the list that appears, tap your desired action.
 - **Default**
 - **Brightness Up**
 - **Brightness Down**
 - **Camera**
 - **Incoming Call (Accepts/End call)**(only for Programmable button -1- short press)
 - **Incoming Call (Ringer Mute)**(only for Programmable button -1- long press)
 - **Media**
 - **Barcode**
 - **Send to an application**

 **NOTE:** Application here refers to a specially designed application that can detect button presses from your device.



WAVE PTX call vs Telephony calls Priority

1. There is no priority been set but depends on which call came earlier.
2. The earlier call will not be disturbed, while later call behave as below:
 - a. WAVE PTX: call will be delivered as voice message and receiver shall receive the notification
 - b. Telephony call: auto direct to voicemail

R2.0 (Android 13) Firmware Update



EVOLVE Firmware Update Method

Current version	How to upgrade to a newer version firmware?
EVOLVE_R01.04.05 (A10)	- microSD card with EVOLVE_R02.00.14 or newer firmware [How-to Guide Demo Video]
EVOLVE_R02.00.14 (A13) and onward	- Android over-the-air (OTA update)

1. All devices from the Distribution Center(DC) have upgraded to EVOLVE_R02.00.14 (A13)
2. Customers who want to upgrade the version from EVOLVE_R01.04.05 to a newer version shall contact CMSO to request a microSD card with EVOLVE_R02.00.14 firmware.
 - a. Device Engineering team will ship a batch microSD card with EVOLVE_R02.00.14 to TSO team.
 - b. TSO team to ship the microSD card to the customer.
3. EVOLVE Latest Release Notes: [link](#)

Thank you for your attention

A decorative graphic consisting of several concentric, light blue circular arcs of varying thicknesses, arranged in a circular pattern on the right side of the slide.

Backup





SERVICE PACKAGES AT-A-GLANCE (NAM)

	ESSENTIAL SERVICES (included as standard)	ESSENTIAL SERVICES WITH ACCIDENTAL DAMAGE (optional)
Total period of cover	3 years	3 years
Service desk	3 years	3 years
Technical support	3 years	3 years
Software support (Bug Fix & Updates)	3 years	3 years
Hardware repair (manufacturing defects only)	1 year	1 year
Hardware repair (inc. normal wear & tear)	3 years	3 years
Hardware repair (inc. accidental damage)	----	3 years
Shipping	2-way	2-way