

**WAVE DEVICES**



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## **Release Notes**

**November 2024**

**Supporting Release BASE\_R04.00.02\_APPS\_R04.00.08 (TLK100i),  
BASE\_R04.00.04\_APPS\_R04.00.08 (TLK150),  
BASE\_R04.00.00\_APPS\_R04.00.08 (TLK100, TLK100j)**

Nov 2024

Fixes in this release

- Improved reliability for PTT Client Re-Login when:
  - Recovering from network failure or disconnection.
  - Facing HTTP Failures from Server.

**Supporting Release BASE\_R04.00.02\_APPS\_R04.00.07 (TLK100i),  
BASE\_R04.00.03\_APPS\_R04.00.07 (TLK150),  
BASE\_R04.00.00\_APPS\_R04.00.07 (TLK100, TLK100j)**

May 2024

Fixes in this release

- Device connects to NTP server using IPv6 connection

**Supporting Release BASE\_R04.00.03\_APPS\_R04.00.06 (TLK150)**

January 2024

Fixes in this release

- Location reporting to dispatcher which occasionally stops reporting for usage of 30sec periodic interval or travelled-distance based trigger is fixed.

**Supporting Release BASE\_R04.00.02\_APPS\_R04.00.05 (TLK100i,  
TLK150), BASE\_R04.00.00\_APPS\_R04.00.05 (TLK100, TLK100j)**

August 2023

Features in this release

- Guam APN for IT&E is configured automatically in the device. (TLK100i, TLK150 only)

Fixes in this release

- Location reporting to dispatcher which occasionally stops reporting for usage of 30sec periodic interval or travelled-distance based trigger is fixed.

## Supporting Release BASE\_R04.00.01\_APPS\_R04.00.04 (TLK100i, TLK150)

March 2023

### Features in this release

- Canada APN for Wireless Logic is configured automatically in the device.

### Fixes in this release

- Remove Jola APN from automatic APN configuration list in the device, due to conflict with Wireless Logic APN in UK.

## Supporting Release BASE\_R04.00.00\_APPS\_R04.00.04 (TLK100, TLK100i, TLK100j, TLK150)

December 2022

### Features in this release

- End to end Encryption (including Mikey Sakke) which is enabled automatically for Government and Enterprise Standard Secure Communication across every talkgroup or individual user upon contact creation.\*
- Support for Location triggers based on:
  - Traveled Distance
  - Emergency Activation
  - Emergency Clearance
  - Group/Private Calls (Emergency or Non-emergency)
  - Low Battery
- Dedicated APN by Wireless Logic for MSI TLK Devices.
- APNs for various Latin America, Europe and Asian countries are configured automatically in the device.

### Fixes in this release

- Add retry mechanism for FOTA upon encountering issues with FOTA server.
- Restart PTT service when network is restored after LTE transient disconnection

### **\*Special Notes:**

During the first time deployment of the feature, there could be a delay of up to 2 minutes before the PTT service is available as the device is provisioning the encryption keys for the Talkgroup.

First time deployment could happen:

1. During upgrade from previous releases to this release, due to which the device has to provision the new encryption keys and environment.
2. During provisioning of new talkgroup contacts for a device, post this release, as the device has to provision the new encryption keys and environment.

## **Supporting Release BASE\_R03.05.01\_APPS\_R03.05.02 (TLK100, TLK100i, TLK100j, TLK150)**

February 2022

### Features in this release

- Enhancement to simplify Out of Box User experience; to allow for one button connection to Preset WiFi Credentials for initial configuration
- UI Enhancement to continuously display the alias-name that has the floor during a PTT Call.
- Multiple APN in EMEA provisioned by default in WAVE radio.

### Fixes in this release

- Remove dependency of Enterprise WiFi Certificate Renewal for TLS-EAP to Challenge Password, i.e. existing Certificate used for Certificate Renewal
- Deleting old Enterprise WiFi Certificate for TLK-EAP when Enterprise WiFi configuration is removed on Portal

## **Supporting Release BASE\_R03.04.02\_APPS\_R03.04.01 (TLK100, TLK100i, TLK100j, TLK150)**

November 2021

### Features in this release

- Connection to a hidden WiFi SSID Supported
- India APN (Jio1/Airtel 4G/BSNL/Vodafone/IDEA) provisioned by default in WAVE radio
- Switzerland APN (Swisscom) provisioned by default in WAVE radio
- Papua New Guinea APN (Digicel/BMobile) provisioned by default in WAVE radio
- Fiji APN (Digicel/Vodafone) provisioned by default in WAVE radio
- Vanuatu APN (Digicel/Vodafone) provisioned by default in WAVE radio
- Guam APN (DataConnect/Docomo/GTA) provisioned by default in WAVE radio
- Samoa APN (Digicel) provisioned by default in WAVE radio
- Panama APN (Movistar/Digicel/WEB Claro) provisioned by default in WAVE radio
- Honduras APN (INTERNET TIGO) provisioned by default in WAVE radio
- Chile APN (Movistar/ENTEL PCS) provisioned by default in WAVE radio
- Hong Kong APN (CMHK/3HK/CSL/Smartone) provisioned by default in WAVE radio

#### Fixes in this release

- Handling to resume FOTA after recovering from an abrupt power cut-off in middle of FOTA procedure
- Improved FOTA reliability with additional retries for FOTA from device to server

### **Supporting Release BASE\_R03.03.01\_APPS\_R03.03.04 (TLK100, TLK100i, TLK100j, TLK150)**

August 2021

#### Features in this release

- Costa Rica APN (MOVISTAR/ICE) provisioned by default in WAVE radio
- Guatemala APN (TIGO) provisioned by default in WAVE radio
- Peru APN (Claro/Movistar/Entel) provisioned by default in WAVE radio
- Brazil APN (OI/Claro/Vivo/TIM) provisioned by default in WAVE radio
- Italy APN provisioned by default in WAVE radio
- FOTA Upgrade in Stun Mode

#### Fixes in this release

- Upon network service disconnection and several failed re-login attempts, WAVE radio attempts re-login at longer intervals
- Improved WAVE radio synchronization with WOC portal when powering up, upon upgrading device
- Improved reliability in synchronizing scan state between radio and WAVE Portal configuration
- Location reporting corrected for 30 sec reporting interval configuration
- WAVE radios attempt server reconnection with IPV6 when IPV4 connection fails
- Changes included to improve PTT server connection when experiencing network connection loss/instability.
- Add protection for cache partition during FOTA upgrade.
- Accessing an emergency list during an active call hangtime, will drop an ongoing call so that a new emergency can be initiated.
- Update lengthy French menu strings to shorter strings to improve display UI legibility.
- Fix to avoid PTT failure upon improper device power off. Earlier the device would show Error 4701.
- Retry network time synchronization when the received network time packet is corrupted.

### **Supporting Release BASE\_R03.02.01\_APPS\_R03.02.03 (TLK100j)**

February 2021

#### Fixes in this release

- WAVE radios will retry server login if authentication fails due to congestion occurring during bulk revoke operations initiated from WOC portal
- WAVE radios will automatically restart Voice Announcement download if download failures occur during bulk edit operations initiated from WOC portal
- WAVE radios will automatically download Voice Announcements in the configured language in the rare event radio detects missing Voice Announcements
- Full charge green LED indicator now turns off when removed from the charger
- WAVE radio login procedure modified to cater for rare time synchronization issue preventing client authentication during power-up
- Power down alert tone is now played whenever radio powers off while in stun mode

## **Supporting Release BASE\_R03.02.01\_APPS\_R03.02.02 (TLK100i, TLK150)**

January 2021

### Features in this release

- TIGO WEB APN for Colombia is now provisioned by default by WAVE radio

### Fixes in this release

- WAVE radios automatically load Movistar APN whenever Movistar SIM card is installed and detected

## **Supporting Release BASE\_R03.02.01\_APPS\_R03.02.01 (TLK100, TLK100i, TLK100j, TLK150)**

November 2020

### Features in this release

- New FOTA UI improvements:
  - Periodic voice announcement & UI indicator are now generated every 3hrs after FOTA download to remind the end user to restart the radio to install new software
  - Radio restarts automatically after 3 days if FOTA package is downloaded but not installed

### Fixes in this release

- Improved network performance and reliability while on WiFi or 3G/4G networks
- Improved WiFi connectivity when roaming between WiFi APs
- TLK 150 Internal/external speaker selection is now saved across power cycle
- Radio cellular modem status (on/off) is now correctly synchronized to WAVE portal
- Scan on/off setting is remembered across power cycle
- Bluetooth status is now synchronized on radio power up with WAVE portal configuration

- LWM2M Device Management client now reports base software version
- DND and Scan can now be configured simultaneously through the WAVE portal
- Latest security patches integrated to resolve software vulnerabilities
- Private calls can now be started while in an ambient listening call
- Radio no longer generates volume feedback tone when changing volume while receiving a call
- WiFi & cellular modems will automatically turn on when entering Stun mode
- Radio will now use WiFi AP with open security in Stun mode, if so configured in the WAVE portal
- WiFi & Cellular modems return to previous configuration when exiting Stun mode

## **Supporting Release BASE\_R03.01.7\_APPS\_R03.01.10 (TLK100j)**

August 2020

Fixes in this release

- Improved connection stability while operating on cellular network
- Improved connection stability while roaming between WiFi APs

## **Supporting Release BASE\_R03.01.06\_APPS\_R03.01.09 (TLK100i)**

## **Supporting Release BASE\_R03.01.06\_APPS\_R03.01.08 (TLK100i)**

July 2020

Fixes in this release

- Maintenance Mode password is copied correctly during clone operation
- Inbound Quick Group Call aliases now scroll horizontally when needed
- Radio name is now retained when upgrading software version from R01.x to R03.x
- Fix defect that caused radio to intermittently disable PTT talkgroup calls until a talkgroup call is received.

## **Supporting Release BASE\_R03.01.05\_APPS\_R03.01.07 (TLK150)**

July 2020

Fixes in this release

- User can now initiate or reply to Area Based Talkgroup Calls when radio has no channels
- Bluetooth connection status icon fixed when connecting from one Bluetooth accessory to another accessory

- Fix intermittent issue which blocks contact list from being downloaded to radio
- Fix intermittent reboot issue caused when carrier offers radio an unsupported 3G band
- Fix to keep WiFi enabled following FOTA upgrade, if WiFi was enabled prior to upgrade
- Tune mic gain to ensure audio level from MAP and MMP microphones are equally balanced
- Higher priority blinking indicators can now be displayed simultaneously with low priority solid LED indicators
- Wrap tone played when wrapping around the received emergency alert list
- Mexico APNs provisioned in radio by default
- Improve Bluetooth audio quality when playing British Voice Announcements
- Bad tone instead of good tone played when Long Press Back/Home button on TLK 150 while in the contact list
- Radio name/MDN now completely scrolls horizontally when receiving Instant Personal Alert
- Good tone instead of bad tone played when sending an Instant Personal Alert
- Update fixed text strings (all languages) for improved readability on TLK 150
- Improve UI responsiveness when enabling WiFi from programmable button on TLK 150
- Power up animations now displayed when powering up into Maintenance, Stun, Recovery modes
- Radio can now receive private calls while fast scrolling talkgroup
- Scan now turns off after removing all channels (from portal), and then adding talkgroups back in
- Radio now uses same universal character for any non-displayable character on TLK 100
- South Korea APNs provisioned
- Improve performance during cellular site handovers
- Radio now starts private emergency call on PTT press -if emergency to private call started while receiving a talkgroup call
- If scan is disabled, then radio will keep scan disabled whenever DND is enabled
- Radio now displays broadcaster alias on receiving radio whenever broadcast call interrupts talkgroup call
- Radio hangs up on Private Call if Back/Home button long pressed
- Bad tone played instead of good tone if menu is disabled
- Radio no longer plays a bad tone when exiting Area Based Talkgroup
- TLK 150 now display Area Based Talkgroup name and Icon when entering Area Based Talkgroup
- IPA cleared from IPA list when calling corresponding contact from contact list or replying to corresponding contact's private call
- Radios will display location icon whenever emergency is entered
- Update Italian fixed text strings for improved readability for TLK 150

## **Supporting Release BASE\_R03.01.04\_APPS\_R03.01.05 (TLK100)**



July 2020

#### Fixes in this release

- Scan configuration is now cloned during radio clone operation
- Radio now ensures packets are assembled in correct order to fix intermittent errors during server login
- UI improvements when fast scrolling large channel list
- UI improvements when scrolling through Area Based Talkgroups
- Channel change while receiving Area Based Talkgroup (ABTG) call will now terminate the ABTG call
- UI improvements when entering/exiting menu while receiving a broadcast call
- UI Improvement so 1st rocker change shows contact name, 2nd rocker change hangs up private call and scrolls to next talkgroup
- FOTA will install correctly after low battery is replaced with charged battery
- Stun and Maintenance mode now announced when powering up in these modes
- Bad tone now played if power button momentarily pressed while holding PTT for call transmission

### **Supporting Release BASE: R03.01.03/APPS: R03.01.03 (TLK 100i)**

May 2020

#### Features in this release

- Serial number is displayed in the Info/Status feature when radio is stunned.

#### Fixes in this release

- FOTA will resume downloading software whenever Cellular modem is disabled and WiFi modem is enabled simultaneously through WOC portal while FOTA download is in progress.

### **Supporting Release BASE: R03.01.02/APPS: R03.01.02 (TLK 100j)**

May 2020

#### Features in this release

- Miscellaneous UI enhancement while fast scrolling the channel list:
  - Improve UI if fast scrolling a channel list that contains unassigned channel positions
  - Improve UI as user transitions from fast scrolling to normal scrolling
  - Fast scroll Area Based Talkgroups if present in the channel list
  - End of List wrap alert tone now played when fast scrolling through beginning/end of the channel list

#### Fixes in this release

- Miscellaneous Bluetooth defect corrections:
  - Improved Bluetooth link stability
  - Improved stability when Bluetooth turned off/on from radio and accessory simultaneously
  - WAVE radio will no longer incorrectly pair with an accessory that is in process of pairing with another WAVE radio
- Clear alert tone consistently played when clearing received emergency alerts
- Display correct talkgroup name when transmitting a talkgroup call when radio is removed from the talkgroup using WAVE Portal.
- WAVE radio will show contact name for 2 seconds before scrolling when starting a private call.
- WAVE radio will allow user to reply to scan received talkgroup call (while in hangtime), when radio is assigned to talkgroups but has no channel positions assigned.
- WAVE radios will unpair and disconnect Bluetooth accessory when that accessory is unpaired from WAVE Portal while it is connected to the WAVE radio.
- TLK 100 will allow user to change volume immediately while scrolling through the Info display
- Improved reliability in synchronizing scan state between radio and WAVE Portal configuration.

## Supporting Release BASE: R03.01.01/APPS: R03.01.01 (TLK 150)

April 2020

#### Features in this release

- New TLK 150 Mobile Radio with mobile accessories supporting wide band audio and all features available in TLK 100 R03.00.01 software version

#### Fixes in this release

- Low level noise removed from the very end of the French Voice Announcements for Channels 82 through 89.
- IPA no longer cleared when a corresponding Private Call from same contact is received
- Location reporting corrected so Dispatcher displays stale/old location as last known location and not as current location.
- IPA is automatically cleared when a corresponding Private Call to the same contact is initiated from the Contact List or when replying to a Private Call from the same contact.
- WAVE radios will now support fast scrolling from accessory button programmed for channel up/channel down
- WAVE radios will unpair and disconnect Bluetooth accessory when that accessory is unpaired from WOC portal while it is simultaneously connected to the WAVE radio.
- WAVE radios will show location reporting icon when emergency is entered.

## Supporting Release BASE: R03.00.01/APPS: R03.00.01 (TLK 100, TLK 100i, TLK 100j)

March 2020

### Features in this release

- Italian, French and Korean Language Support

### Fixes in this release

- None

## Supporting Release BASE: R03.00.01/APPS: R03.00.00 (TLK 100)

March 2020

### Features in this release

- Support Kodiak 9.0 features
  - Emergency Alert//Call
  - User Monitor/Check
  - User Enable/Disable
  - Ambient Listening
  - Discreet Listening
  - 96 Talkgroups
  - Location based talkgroups
- Instant Personal Alert (IPA)

### Fixes in this release

- Radio receives talkgroup calls from a non-priority talkgroup that was added to the scan list while the radio was scanning
- Radio receives talkgroup call from home channel during scan
- Intermittently missing Channel Voice Announcement no longer occurs when changing talkgroups.
- Show caller alias when a different device takes the floor during talkgroup call.
- Miscellaneous fixes to ensure reliability on scan start, scan initiation
- Number of contacts is now displayed when Contact List is entered. Previously, radio occasionally would not show contact.
- "Downloading Language Pack" voice announcement is now consistently generated when in the Info feature while language pack is downloaded. Previously, voice announcement was occasionally not generated during specific scenarios.
- Radio will generate a bad key tone when attempting to clear Bluetooth pairing from a Bluetooth accessory that is not paired.
- Ensure all menu items including the Contact List are removed when all Menu Items in "Menu Visibility" are cleared on WAVE Portal.

- TLK-100 no longer requires cellular reactivation on every power up while in specific radio configurations.
- WAVE radios will show private call initiator's name instead of intermittently showing talkgroup alias and/or channel number
- Clear occasional incorrect "Software Available" indication in radio Info feature following successful FOTA upgrade.

## **Supporting Release BASE: R02.02.01/APPS: R02.02.01 (TLK100, TLK100i, TLK100j)**

November 29, 2019

Fixes in this release

- Improve battery life performance

## **Supporting Release BASE: R02.02.00/APPS: R02.02.00 (TLK100i)**

November 20, 2019

Features in this Release

- Radios will no longer unconditionally advertise Bluetooth friendly name whenever Bluetooth is enabled.
- Radios will block users from storing WiFi AP in Maintenance Mode, if WiFi security field is not filled in.
- Radio now generates an invalid tone, whenever an unsupported button is pressed on an accessory connected to the radio
- Improve diagnostic data logging gathering

Fixes in this Release

- Improve time taken to return back to LTE whenever radio attaches to WiFi AP that has no internet connectivity
- Handle edge condition when PTT is pressed on Bluetooth accessory while Bluetooth accessory is deleted from WoC portal.
- Fix LTE connection failure following FOTA upgrade so a manual restart is not necessary.
- Fix charging LED indicator whenever radio is charging while in Maintenance Mode.
- Bluetooth accessory friendly name now scrolls whenever friendly names is too long to display statically

## **Supporting Release BASE: R02.01.01/APPS: R02.01.01 (TLK100, TLK100j, TLK100i)**

September 12, 2019

## Features in This Release

- Support for TLK100, TLK100j and TLK100i under a common baseline
- US English, UK English, Spanish, Portuguese, German, Hebrew, Japanese voice announcements language supported on TLK 100 model as well

## Supporting Release BASE: R02.01.01/APPS: R02.01.00 (TLK100)

September 12, 2019

## Features in This Release

- WiFi and BT MAC addresses now available in Maintenance Mode
- "Battery Low" voice announcements no longer generated every 5 minutes. Instead, radio generates "Battery Critically Low" voice announcement when critically low threshold is reached (less than ~30mins of life remaining)
- Time required to connect browser to radio's Maintenance Mode server improved. Maintenance Mode web page now loads in several seconds.
- UI improvements in Maintenance Mode web pages introduced:
  - Landing page takes you immediately to radio info.
  - Radio Info Page now shows WiFi and Bluetooth MAC Addresses
  - Login Prompt only appears if user attempts to download diagnostics or upload software
  - Open/No Authentication added as an option to configure WiFi

## Fixes in This Release

- Alert tone no longer continuously generated when radio powering up in a charger using non-MSI, 3rd party battery. In previous build, continuous tone persisted even after radio removed from charger, and only stopped after press/release PTT.
- Fix introduced to correct UI whenever charging is attempted when battery is too hot or too cold. In previous release, radios generated continuous tone when charging attempted with battery that is too hot or too cold. Now radio blinks red LED and if Info button pressed, radio shows invalid charging UI and generates "Charging Error" voice announcement.
- Changes included to improve network connection stability and avoid momentary, intermittent loss of service.
- Charging LED now remains enabled after all other LED indicators stop. Radios with previous release show charging LED indicator but when an inbound call came in, or when PTT pressed, the charging LED indicator would not resume after the call terminated.
- New security patches, and miscellaneous low level defect corrections, and optimizations included

## **Supporting Release BASE: R02.00.10/APPS: R02.00.08 (TLK100j, TLK100i)**

June 12, 2019

### Fixes in This Release

- Language voice announcement download now resumes and installs correctly following power off (or battery removal) during language pack download. In previous release, Wave radio would not resume the download and generate error 4601.
- Integrates a fix to handle PTT press while unmuted to a call. In previous release, a radio could start transmission when floor was released while generating a continuous tone. Receiving radio would enter call, with no audio.

## **Supporting Release BASE: R02.00.04/APPS: R02.00.05 (TLK100j)**

April 23, 2019

### Features in This Release

- Wave radios now provides configurable menu
  - Customer admin can select the menu options visible in the device
- Wave radios now support Talkgroup Priority Scan
  - Ability to monitor and respond to calls from multiple talkgroups. Three priority levels
- Wave radios now supports A-GNSS for more accurate and faster location reports
  - Support for GPS, GLONASS, Beidou and Galileo constellations
  - Additional assistance data for the GPS, GLONASS, Beidou constellations
- Wave radios includes new Icon-based UI and multi-language voice announcements
  - English, Spanish, Portuguese, German, Japanese, Hebrew
- Wave radios now delivers Wideband audio
  - Provides even better audio quality

## **Supporting Release BASE: R01.01.03/APPS: R01.01.05 (TLK100)**

May 31, 2019

### Fixes in This Release

- Accessory mic audio level increased to ensure transmit audio level from wired accessory is comparable with internal microphone level

## Supporting Release BASE: R01.01.02/APPS: R01.01.04 (TLK100)

May 23, 2019

### Fixes in This Release

- Radio's firewall configuration updated to provide improved device security
- Fix to prevent radio from dropping some audio at the end of the voice transmission. In the previous release, a syllable would occasionally be dropped immediately preceding PTT release.
- Battery gauge improvements introduced to more accurately track true battery life capacity. In particular, fixes issue where battery level low reached when battery capacity is still good (more than ~30%).