MZ Summary of Firmware Changes

This document summarizes the following firmware releases:

Firmware	Release Date	Page	Firmware	Release Date	Page
SHSMZ11z52	03 April 2013	1	*11m8*	8 April 2008	5
11z50	12 March 2012	2	*10t*	14 August 2007	6
11z48	4 October 2011	2	*04u023*	26 February 2007	7
11z29	28 July 2010	3	*04u019*	4 December 2006	7
11q4	9 May 2008	4	*04u16*	10 October 2006	7

Hardware Requirements

This firmware requires one of the following Zebra Mobile Printers (where "X" means the value is not important):

- MZ 320   (M3E-XXXXXXXX-XX) or (M3F-XXXXXXXX-XX)
- MZ 220   (M2E-XXXXXXXX-XX) or (M2F-XXXXXXXX-XX)

Note • Firmware releases prior to 11z48 will not run on the M2F-XXXXXXXX-XX or M3F-XXXXXXXX-XX platforms.

SHSMZ11z52

Release Date: 03 April 2013

Enhancements

- Implemented `bluetooth.connected_security_mode` SGD

Note • The security mode that will be used during communication Is controlled by the terminal. During the pairing process, the printer and terminal will negotiate to the highest security level supported by both units. To confirm the security mode during operation, use the

```
! U1 getvar  "bluetooth.connected.security_mode"
```

command.

Issues fixed

- Cyrillic characters in the Swiss721 font now supported.

- Mirror processing time has been improved.

- Pairing in Bluetooth Security Mode 3 is now functioning correctly.

- Line mode support for .FNT fonts has been improved.

11z50

Release Date: 12 March 2012

Enhancements

- WLAN: Update 802.11 radio firmware [8767]

Issues Corrected

- Avalanche: does not list "G" radio as WPA2-compatible

- PRINT: I2 of 5 barcode calculates incorrect checksum if using field justification

- PRINT: Dropped characters followed by the '!' character in line-print mode

- PRINT: MZ feed length not compatible with 11z29 and earlier applications

- PRINT: I2of5 barcode text prints extra check digit when provided by the host

- PRINT: printing is noisy with positive TONE values

- USB: SGD parameter usb.device.device_unique_id should default to off

- WLAN: Certificates with version 1 and 2 are rejected

11z48

Release Date: 4 October 2011

Enhancements

- Add support for the M2F and M3F platforms

- Add support for datamatrix barcodes to MZ printers

- WLAN: Added SHA2 support for PEAP authentication

- WLAN: Removed VPN firmware

- WLAN: Add EAP session resumption (see below for description)

Issues Corrected

- Multiple enabled Avalanche auto-run packages will not update correctly
- Avalanche custom properties not working correctly
- MZ's improperly printing text messages from the Avalanche server
- Print.tone SGD parameter does not handle values about 127
- WLAN: PEAP auth unsuccessful due to unsupported certificate fields
- WLAN: EAP-FAST failing on ACS 5.1
- WLAN; User was allowed to turn the unsupported 802.11d feature on which resulted in wireless communication interruptions
- Incorrect Top-Of-Form registration on the MZ

EAP Session Resumption

Benefit

Enables faster roaming when using EAP-based protocols.

Summary

After a printer and the network have previously negotiated an EAP session, and due to roaming or falling out of range and returning into range, begin a new EAP negotiation, they can agree to resume the previous session. This significantly reduces the time required to establish the new session from tens of seconds to seconds. In order for this to work, EAP Session Resumption must be enabled in the network infrastructure equipment by the network administrator. EAP Session Resumption is automatically supported in the printer when using any EAP-based protocols such as PEAP, LEAP, EAP-TLS, EAP-TTLS, or EAP-FAST. No printer configuration changes are required.

11z29

Release Date: 28 July 2010

Enhancements

- None

Issues Corrected

- CPCL: resident font corruption after print line using scaleable font
- CPCL: Change default media mode to journal
- CPCL: Vietnamese fonts not printing correctly

- BT: Encryption not indicated properly in 2-key report when Bluetooth authentication is enabled
- BT: problems printing from Cipher Labs terminal
- BT: Partial print failures using Bluetooth
- BT: Not responding to query over Bluetooth
- 802.11: Change default wlan.keep_alive value to "on"
- 802.11: Unable to perform EAP-FAST authentication with Cisco 2106
- 802.11: Not properly responding to duplicate SYNs
- 802.11: Radio can occasionally lock up
- 802.11: Improper TCP handshake, occasionally not setting SYN flag in acknowledgement packets
- 802.11: Authentication failed with PEAP on IAS2008 server
- 802.11: Change default roam packet setting to "on"

11q4

Release Date: 9 May 2008

Enhancements

- Update to handle 2048 byte keys and to check for duplicate EAP identifier numbers

Issues Corrected

- Enhanced signal strength, roaming support, and power save responsiveness for the Zebra 802.11g radio
- Fixed conflict with IrDA and Bluetooth residing in the same printer

Additional information regarding the improvements to the Zebra 802.11g radio:

This software release improves the internal signal strength reporting for the Zebra 802.11g radio. These enhancements improve the printer's operation in areas with weak signals. As a result of these changes the printer should roam less frequently.

Additionally, changes to the radio's power-save algorithm have been made which will also result in improved performance. Note that the power-save behavior is affected by settings on both the access point and the printer. In particular, it should be noted that access point settings have a direct relationship on wireless device sleep periods.

11m8

Release Date: 8 April 2008

Enhancements

- Added paper sensor support

- Added roam logging for G radio.

- Added event logging

- Added roam logging when failed to query radio for signal strength

  - Added Bluetooth connection shutdown when "device.reset" is issued

  - (EAP-TLS): Update for determining TLV PEAP package in tunnel

  - Added sync function to the Bluetooth Stack. This function sends a known command to the Bluetooth radio and waits for a proper response. It will try 10 times (1 second) in order to identify when the radio is in a ready state

  - Enable bar sensor information on the two-key report

  - Support common motor driver

  - (Avalanche) AMC 4.4 support added

Issues Corrected

- (Bluetooth 2.0): Update for display of "auto" in bluetooth.radio_auto_baud field and setting of 57 baud in NVM, BT app download now works with 2.0 radios

- (Bluetooth 2.0): removed credit limit

- Reset BT priority and setup hardware handshaking if BT hardware is present

- (WPA2): Fixed issue with connecting to Cisco WLAN Controller Network.

- Addressed noisy printing with new sensors

- Fixed line printing for receipt exceeding 161 inches

- Removed forced printing of the line print buffer when the printer receives a Bluetooth disconnect complete event

10t

Release Date: 14 August 2007

Enhancements

- (EAP-TLS): Added logic to prevent repeated PAP challenge responses
- (EAP-TLS): Update to work with SBR server. The SBR was suggesting TTLS for inner authentication, this is now NAK'd.   The update will now NAK all inner requests besides MSCHAPv2
- (Avalanche): Changes made to _devprop.prf file e.const part. for each property starts on the new line.
- Added support for turning on the option for sending an IP packet when roaming
- Changed TCP socket behavior so a duplication connection does not immediately disconnect the previous connection. It will only happen after 30 seconds
- (WPA): EAPOL START is sent if AP does not start EAP handshake within 5 seconds after association
- WPA2 Broadcast key rotation for both AES and TKIP
- Added support for wlan.wpa.wpa_version, wlan.wpa.groupkey_ciphersuite, and wlan.wpa.pairwise_ciphersuite.
- Changed the interrupt priority of the Bluetooth port.
- New chip replacing an obsoleted chip on the IrDA module board, required software changes.
- Made required changes for the new IrDA chip
- Added IrDA input source which fixes line print mode behavior when using IrDA. Fixed font numbering issue which was causing font 2 to not print.
- (Avalanche): Increased number of allowable properties to 128
- Now ignores the inactivity timeout when charging
- Now allows printing when in charging bay
- (Bluetooth 2.0): Added ability to download the printer application via Bluetooth
- New G radio firmware: FW image 5.02.14

Issues Corrected

- (Avalanche): Fixing buffer overflow, that will prevent unit from resetting
- (Avalanche): Corrected UDP malformed packets.

04u023

Release Date: 26 February 2007

Enhancements

- Added. Changed roaming scan behavior for G radio so only one channel is scanned per 100ms interval. This allows the radio to be more responsive to normal traffic while in a roaming state
- (G radio): Added user configurable parameter for roam signal and interval.
- Changed the default print speed to 3
- Enable Vietnamese Encoding

Issues Corrected

- Corrected problem with G radio when losing association while roaming. Radio would not re-associate

04u019

Release Date: 4 December 2006

Enhancements

- Improved power save and roaming behavior with the Samsung radio.
- Added function to select strongest Unicast cipher for WPA2 if AP has more than one Unicast cipher enabled
- POP3 enhancements to handle out-of-paper and HTML text-encoding not being printed

Issues Corrected

- n/a

04u16

Release Date: 10 October 2006

Enhancements

- Original Release

Issues Corrected

- n/a