



V79.20.xxZ

Summary of Firmware Release Notes

This document summarizes the following firmware releases:

Firmware Release Number	Release Date	See Page
V79.20.01Z	10 January 2017	page 1
V79.19.15Z	14 January 2016	page 6
V79.19.12Z	30 June 2015	page 6

For support, please visit www.zebra.com/support.

V79.20.01Z

Release Date: 10 January 2017

This firmware includes all features of the previous [V79.19.15Z](#) release, except where noted otherwise. It is for use with the following printer models:

- ZR628™
- ZR638™

Changes

- Link-OS version updated to v4.0.
- Support has been added for a Visibility Agent. This new feature can connect a networked Link-OS printer to Zebra's Asset Visibility Service (AVS). The Asset Visibility Service is a Zebra-managed service offering that provides Zebra partners and customers 'at-a-glance' visibility to analytical insights about their device health, utilization, and performance. When Link-OS v4 printers are connected to a wired or wireless network, they will attempt to connect to the Asset Visibility Service by default. When successfully connected, the printer sends approximately 5 Kbytes of data per day (depending on how many alert events happen per day).
 - Data printed on any labels, tags or receipts are not transmitted to the Asset Visibility Service. The printers only communicate predefined settings on a scheduled basis. The printer sends Discovery Data and Settings and Alerts Data. The settings that are transmitted are listed below in the form of Set-Get-Do commands and are detailed in the Zebra Programming Guide.
 - The printer uses an encrypted, certificate-authenticated web socket connection to connect to the ZPC. **NOTE:** This is the same connection type that is typically used when you connect to an e-commerce or banking site.
 - The Visibility Agent can be turned off using a Set-Get-Do Command. Using your preferred software or Zebra Setup Utilities, send the commands below to configure and validate the Asset Visibility Agent settings. You can download Zebra Setup utilities at <https://www.zebra.com/setup>.

weblink.zebra_connector.enable

Turns the Asset Visibility Agent on or off. Additional information can be found in the App Note. See <https://www.zebra.com/us/en/products/software/barcode-printers/link-os/application-notes.html>.

Values: "on" or "off"
Default Value: "on"

To send the commands:

1. Send the following command to Opt Out (disable the connection to ZPC and the Asset Visibility Service):

```
! U1 setvar "weblink.zebra_connector.enable" "off"
```

2. Send the following command to validate that you have opted out:

```
! U1 getvar "weblink.zebra_connector.enable"
```

The printer should respond with "off".



Important • Be sure to include a carriage return/line feed after sending a command to the printer.

If the Visibility Agent is on, there are two data types that the printer can send to the AVS platform – **Discovery Data** and **Setting/Alert Data**.

Discovery Data

This information is sent when the printer connects to the ZPC. The following printer settings are transmitted:

Printer Settings		
device.unique_id	media.type	device.oem.model_name
ip.dns.domain	media.thermal_mode	appl.name
ip.active_network	media.printmode	device.location
mac_raw	odometer.total_label_count	zpl.system_status
ip.protocol	odometer.media_marker_count1	ip.addr
ip.netmask	odometer.media_marker_count2	ip.ftp.enable
ip.gateway	label_queue.batch_label_cnt	ip.lpd.enable
ip.port	label_queue.format_counter	ip.tcp.enable
device.pnp_option	zbi.enabled	ip.udp.enable
device.languages	zbi.state	ip.http.enable
device.cpcl_formatting_commands_disable	zbi.revision	ip.smtp.enable
head.resolution.in_dpmm	head.width.in_dots	ip.pop3.enable
zpl.label_length	ip.port_json_config	ip.snmp.enable
ezpl.print_width	appl.link_os_version	ip.telnet.enable
media.darkness.mode	device.friendly_name	weblink.enable

Settings and Alerts Data

This information is sent by the printer at the schedule listed in the table below. The following printer settings or alerts are transmitted:

Printer Settings		
At connection:	At connection:	When the Alert occurs:
weblink.zebra_connector.version	device.bluetooth_installed	PAPER OUT
device.product_name	odometer.media_marker_count	RIBBON OUT
print.tone_format	media.type, ezpl.media_type	HEAD ELEMENT BAD
power.percent_full	interface.network.active.speed	SUPPLY TOO HOT
power.serial_number_string		HEAD OPEN
power.manufacture_date		HEAD COLD
power.cycle_count	Every Hour:	HEAD TOO HOT
power.device_name	power.percent_full	CUTTER JAMMED
power.full_charge_capacity	wlan.signal_strength	COLD START
power.date_first_used	odometer.total_print_length	
interface.network.active.ip_addr	interface.network.active.speed	
wlan.signal_strength		Once A Day:
odometer.total_print_length		power.cycle_count
odometer.rfid.valid_resetable	Every 6 Hours:	power.device_name
odometer.rfid.void_resetable	print.tone	power.full_charge_capacity
memory.flash_size	print.tone_zpl	odometer.total_label_count
memory.flash_free	media.speed	odometer.rfid.valid_resetable
device.ltu_installed	zpl.label_length	odometer.rfid.void_resetable
device.cutter_installed		memory.flash_free
device.rewinder_installed		odometer.media_marker_count
		media.type
		ezpl.media_type

Changes (continued)

- Front Panel Batch Counters have been made available. They can be turned on by using the SGD command `display.batch_counter`.
- Web sockets connections now support SHA2 certificates. The printers will continue to support SHA1 certificates until Link-OS v5 is released (in 2017). At that time, the printers will no longer support SHA1 certificates, in accordance with privacy best practices.
- Alerts are no longer displayed over the Home menu to enhance readability.
- New Set-Get-Do Commands were implemented. Refer to the Zebra Programming Guide for details on each command.
 - head.resolution.in_dpi
 - file.capture_response.begin
 - file.capture_response.end

- file.capture_response.destination
- device.command_override.add
- device.command_override.clear
- device.command_override.list
- device.command_override.active
- weblink.zebra_connector.version
- weblink.zebra_connector.enable
- weblink.zebra_connector.proxy
- weblink.zebra_connector.authentication
- weblink.zebra_connector.authentication.add
- weblink.zebra_connector.authentication.remove
- weblink.zebra_connector.authentication.entries
- wlan.wpa.timecheck
- wlan.rts_cts_enabled
- display.batch_counter
- device.set_clock_to_build_date

Issues Corrected

- The SGD command `power.low_battery_timeout_alt` is now read/write.
- Bluetooth connectivity has been improved so that it will not disconnect during a network reset (~WR).
- When using the Dual Radio, the Bluetooth radio will remain active even if the WLAN radio is not.
- The SNMP `zbraOptUnsAlertCondition` and `zbrOptUnsAlertsEntry` response strings have been extended to include 1023 characters.
- The Japanese and Korean front panel menus have been adjusted to eliminate character overlaps.
- SNMP Print Job Completed reporting has been enhanced when using the Pause Alert.
- The ZBI `WRITE` command has been corrected to count all data written to the system.
- The EPL `URH` and `URL` commands will now return a value in meters.
- The Mirror system timing has been altered to include a retry, so as to improve file writing performance.
- EPL has been enhanced to handle images larger than the label size.
- The command `zpl.zpl_override` has been eliminated; use the `device.command_override` commands instead.
- The printer will now come back on-line after being rebooted while in the cradle when the battery is fully charged.
- The printer will now feed to the `SET-TOF` defined position when that setting has been set, and the FEED button is pressed.

- The Mirror system will now accept the return code `125` in addition to the return code `150`, in order to support IIS7 and FileZilla servers.
- The Mirror system now supports time and date stamping used by IIS7 and FileZilla servers.
- Firmware updating when using both Profile Manager and either IIS7 or FileZilla has been optimized to avoid conflicts.
- Wi-Fi roaming and Protected Management Frames (PMF) support have been improved.
- Charging while the printer is turned on has been optimized to eliminate unneeded charge cycles.
- Memory management during printing has been optimized for cases where a `.TTF` font, graphics, and inverted orientation printing are being used.
- The JSON implementation of the `usb.mirror.feedback.odometer` and `ip.mirror.feedback.odometer` commands now have values of `READ_WRITE_ACCESS`.
- The JSON implementation of the `zbi.state` command has been changed from a string type to an enum type.
- The EPL command `oR0,0` is now supported..
- The Czech menu will now use the word `INCHES`.
- Socket connections on ZBI have been optimized to avoid a connection not ending when it should.
- The `CHARGING TEMP FAULT` message system has been optimized to be more accurate.
- The JSON implementation of `interface.network.active.speed` is now treated as an integer.
- APPLICATOR mode will be offered and selectable, and the printer will use APPLICATOR paper movement behavior while in the mode; however since the printer does not have an applicator option, the printer will not wait for applicator signals.
- The label feed length after a calibration will now be updated to use the newly calibrated length.
- The range for `ip.discovery.port` is now 1 - 65535.
- The range for `zpl.label_length` has been corrected in the allconfig.

V79.19.15Z

Release Date: 14 January 2016

This firmware includes all features of the previous [V79.19.12Z](#) release, except where noted otherwise. It is for use with the following printer models:

- ZR628™
- ZR638™

Changes

- The wireless settings commands only support non-control ASCII characters.
- FTP PORT commands are supported when the port number requested is above 1023 and the IP address being requested is the same as that of the device initiating the connection.

Issues Corrected

- Network Time Protocol settings syntax checking has been enhanced.

V79.19.12Z

Release Date: 30 June 2015

This is the initial release of this firmware. It is for use with the following printer models:

- ZR628™
- ZR638™

Changes / Issues Corrected

None.