

Zebra Visibility Agent



ZEBRA

Application Notes

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corporation, registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners.
© 2023 Zebra Technologies Corporation and/or its affiliates. All rights reserved.

Information in this document is subject to change without notice. The software described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of those agreements.

For further information regarding legal and proprietary statements, please go to:

SOFTWARE: zebra.com/informationpolicy

COPYRIGHTS: zebra.com/copyright

PATENTS: ip.zebra.com

WARRANTY: zebra.com/warranty

END USER LICENSE AGREEMENT: zebra.com/eula

Terms of Use

Proprietary Statement

This manual contains proprietary information of Zebra Technologies Corporation and its subsidiaries (“Zebra Technologies”). It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the express, written permission of Zebra Technologies.

Product Improvements

Continuous improvement of products is a policy of Zebra Technologies. All specifications and designs are subject to change without notice.

Liability Disclaimer

Zebra Technologies takes steps to ensure that its published Engineering specifications and manuals are correct; however, errors do occur. Zebra Technologies reserves the right to correct any such errors and disclaims liability resulting therefrom.

Limitation of Liability

In no event shall Zebra Technologies or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, consequential damages including loss of business profits, business interruption, or loss of business information) arising out of the use of, the results of use of, or inability to use such product, even if Zebra Technologies has been advised of the possibility of such damages. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Publication Date

July 25, 2023

About this Document

This document explains how to disable Visibility Agent on a printer running Link-OS v4.0 or later. (To find your current Link-OS version, see [Identifying the Link-OS Version on page 8.](#))

Overview

Zebra's Asset Visibility Service (AVS), 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. The AVS supports both Zebra's Link-OS printers and mobile computers.

By default, Link-OS v4.0 or later networked printers will connect to AVS via the Cloud-based Zebra Printer Connector (ZPC). The printer feature that controls this capability is called Visibility Agent. The printer uses an encrypted certificate authenticated web socket connection to connect to the ZPC. (This is the same connection type that is typically used when you connect to an e-commerce or banking site.)

This document details how to disable the printer's connection to the ZPC by configuring Visibility Agent. Printers that have Visibility Agent disabled, cannot connect to ZPC and AVS.

Supported Printers

Currently, the following printers when running Link-OS v4.0 or later, supports Visibility Agent:

 <p>ZT500/600 Series</p>	 <p>ZT400 Series</p>	 <p>ZT200 Series</p>
 <p>ZD600 Series</p>	 <p>ZD500 Series</p>	 <p>ZD400 Series</p>
 <p>ZQ500 Series</p>	 <p>ZQ300 Series</p>	 <p>ZE5x1 Series</p>



Use Cases

When Link-OS v4.0 or later printers are connected to a wired or wireless network, they will, by default, attempt to connect to AVS via ZPC. When successfully connected, the printer sends approximately 5 kB of data per day (depending on how many alert events happen per day).

Data printed on any labels, tags, or receipts is **not** transmitted to the ZPC or AVS.

The printers communicate predefined settings on a scheduled basis. The printer sends **Discovery Data** and **Settings and Alerts Data**. These are listed in the tables below in the form of Set-Get-Do commands, which are detailed in the Zebra Programming Guide.

Discovery Data

The following printer settings are transmitted when the printer connects to ZPC.

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

Printer Settings	Printer Settings
odometer.media_marker_count2	ip.telnet.enable
label_queue.batch_label_cnt	weblink.enable
label_queue.format_counter	

Settings and Alerts Data

The following printer settings or alerts are transmitted by the printer at the schedule listed in the table below.

Printer Settings	Printer Settings
At Connection	Once a Day
metrics.calibration.last_entry	power.cycle_count
device.product_name	power.device_name
print.tone_format	power.full_charge_capacity
power.percent_full	power.inactivity_timeout
power.serial_number_string	odometer.rfid.valid_resettable
power.manufacture_date	odometer.rfid.void_resettable
power.cycle_count	memory.flash_free
power.device_name	odometer.media_marker_count
power.full_charge_capacity	media.type
power.date_first_used	ezpl.media_type
interface.network.active.ip_addr	power.design_capacity
wlan.signal_strength	ezpl.print_method
odometer.total_print_length	device.location
odometer.rfid.valid_resettable	ribbon.cartridge.part_number
odometer.rfid.void_resettable	ribbon.cartridge.serial_number
memory.flash_size	ribbon.cartridge.length_remaining
memory.flash_free	ribbon.cartridge.length
device.ltu_installed	odometer.net_media_length
device.cutter_installed	odometer.net_ribbon_length
device.rewinder_installed	display.screen_info
device.bluetooth_installed	power.percent_health
odometer.media_marker_count	power.temp_high
media.type	power.temp_low
ezpl.media_type	wlan.roam_trigger
power.design_capacity	wlan.nf_dbm
ezpl.print_method	
wlan.bssid	
head.serial_number	
odometer.net_media_length	
odometer.net_ribbon_length	

Zebra Visibility Agent Application Notes

Printer Settings	Printer Settings
display.screen_info power.percent_health power.temperature power.chgr_status power.temp_high power.temp_low power.battery_type device.uptime power.decom_thold_perc apl.enable zbi.enable device.protected_mode ip.http.enable ip.snmp.enable rtc.unix_timestam weblink.enable wlan.enable zbi.key mqtt.enable	
Every 6 Hours	Every 1 Hour
print.tone print.tone_zpl media.speed zpl.label_length	power.percent_full wlan.signal_strength odometer.total_print_length odometer.total_label_count wlan.bssid power.temperature power.chgr_status sensor.ambient_temperature.current_reading sensor.ambient_humidity.current_reading sensor.ambient_light.current_reading sensor.magnetometer.current_reading sensor.object_temperature.current_reading sensor.proximity.current_reading sensor.air_pressure.current_readin

Printer Settings	Printer Settings
Alerts	Events
PAPER OUT	MediaCalibrating:Clear
RIBBON OUT	metrics.calibration.last_entry
HEAD ELEMENT BAD	CartridgeUnloaded:Clear
SUPPLY TOO HOT	media.cartridge.part_number
HEAD OPEN	media.cartridge.serial_number
HEAD COLD	media.cartridge.total_label_cnt
HEAD TOO HOT	media.cartridge.labels_remaining
CUTTER JAMMED	



NOTE: Alerts and Events are sent by the printer whenever they happen and do not wait for a set time interval.

Disabling

You can configure a printer to stop reporting data to ZPC and AVS using one of the methods described below. This setting will persist across power cycles and factory defaults.

Using the Printer's Front Panel

1. On printers with an LCD front panel, navigate to the **NETWORK** menu.
2. Scroll to the **Visibility Agent** setting.



3. Press the up or down keys to change the setting to **OFF**. If the password system is active, you must enter the Front Panel Password to be able to alter this setting.

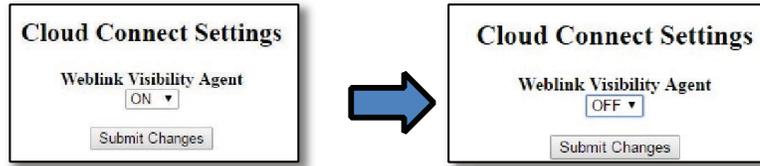


NOTE: The QLn320 does not offer the Visibility Agent setting on its front panel.

Using the Printer's Web Pages

1. On printers that support changing settings via their internal web pages, enter the printer's **IP address** into your browser address bar (for example, 10.5.6.15) and press **Enter**.
2. Once the printer's home page is displayed, navigate to the **Network Settings** page.
3. Select **View and Modify Printer Settings**, and enter the printer's password.
4. Select **Network Configuration** and **Cloud Connect** Settings.

5. On the Cloud Connect Settings page, change the Visibility Agent setting to **OFF**. Click **Submit Changes** to accept the change.



6. After submitting your changes, click the **View and Modify Printer Settings** link. Click **Save Current Configuration** to save your new settings.



NOTE: For mobile printers that do not support changing the setting from the web page or front panel, use the “Set-Get-Do Command” method explained in the next section.

Using a SET-GET-DO Command

Using your preferred software or [Zebra Setup Utilities](#), send the commands below to configure and validate the **Visibility Agent** settings. (Click the link if you need to download a copy.)

Set-Get-Do Command Description

Command name: “weblink.zebra_connector.enable”

Purpose: Turns the Visibility Agent on or off.

Values: “on” or “off”

Default: “on”

To send the commands:

1. Send the following command to Disable (disable the connection to ZPC and AVS):

```
! U1 setvar “weblink.zebra_connector.enable” “off”
```



NOTE: Be sure to include a carriage return/line feed after sending the command.

2. Send the following command to validate you've disabled the [NAME]:

```
! U1 getvar “weblink.zebra_connector.enable” The printer should respond with “off”.
```



NOTE: Be sure to include a carriage return/line feed after sending the command.

Identifying the Link-OS Version

The Link-OS version running on your printer may be identified on a printer configuration label generated with ZPL.

To print a printer configuration label:

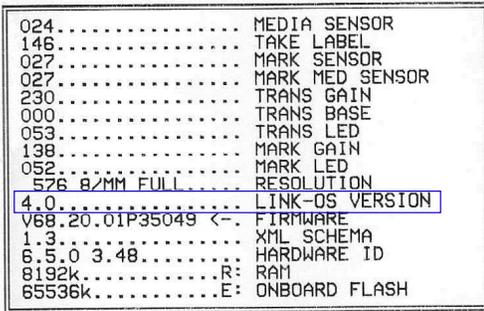
Using your preferred software or [Zebra Setup Utilities](#), send the following ZPL command:

```
~WC
```



NOTE: Ensure to include a carriage return/line feed after sending the command.

The printer configuration label prints.



 **NOTE:** This figure only shows a section of the printer configuration label displaying the Link-OS version.

Revision History

Version	Date	Description
1	September 2016	Initial release of Disabling of Zebra Printer Connector and Visibility Agent Application Notes
2	June 2016	Updated to clarify text
3	January 2018	Updated to include new printers, later Link-OS versions and ini file updates.
4	July 2023	Updated document name Updated the Settings and Alerts Data table Added ZE5x1 series to the Supported Printers section

Disclaimer

All links and information provided within this document are correct at the time this document was created.

