Disabling the Visibility Agent

Zebra Customer Application Notes

This document covers how to disable the Visibility Agent on a printer running Link-OS v4 or later. (To find your current Link-OS version, see *Identifying the Link-OS version* on page 7.)

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 Asset Visibility Service supports both Zebra's Link-OS printers and mobile computers.

Link-OS v4 or later networked printers will, by default, connect to Zebra's Asset Visibility Service via the Cloud-based Zebra Printer Connector (ZPC). The printer feature that controls this capability is called the 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 the Visibility Agent. Printers that have the Visibility Agent disabled cannot connect to the ZPC and Asset Visibility Service.

Supported printers

At the time of writing, the following printers, when running Link-OS v4 or later, support the Visibility Agent:

 ZT500/600 Series	 ZT400 Series	 ZT200 Series	 ZD600 Series
 ZD500 Series	 ZD400 Series	 QLn Series	 ZQ500 Series
	 ZQ300 Series	 iMZ Series	

Use cases

When Link-OS v4, or later printers are connected to a wired or wireless network, they will, by default, attempt to connect to the Asset Visibility Service via the ZPC. 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 is ***not*** transmitted to the ZPC or Asset Visibility Service.

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

Discovery Data

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

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
odometer.media_marker_count2	ip.telnet.enable
label_queue.batch_label_cnt	
label_queue.format_counter	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	Printer Settings
At connection:	**Every 6 Hours:**
weblink.zebra_connector.version	print.tone
device.product_name	print.tone_zpl
print.tone_format	media.speed
power.percent_full	zpl.label_length
power.serial_number_string	
power.manufacture_date	**Once A Day:**
power.cycle_count	power.cycle_count
power.device_name	power.device_name
power.full_charge_capacity	power.full_charge_capacity
power.date_first_used	odometer.total_label_count
interface.network.active.ip_addr	odometer.rfid.valid_resettable
wlan.signal_strength	odometer.rfid.void_resettable
odometer.total_print_length	memory.flash_free

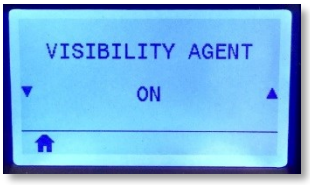
odometer.rfid.valid_resettable	odometer.media_marker_count
odometer.rfid.void_resettable	media.type
memory.flash_size	ezpl.media_type
memory.flash_free	device.location
device.ltu_installed	**When the Alert occurs:**
device.cutter_installed	PAPER OUT
device.rewinder_installed	RIBBON OUT
device.bluetooth_installed	HEAD ELEMENT BAD
odometer.media_marker_count	SUPPLY TOO HOT
media.type, ezpl.media_type	HEAD OPEN
head.serial_number	HEAD COLD
wlan.bssid	HEAD TOO HOT
Every Hour:	CUTTER JAMMED
power.percent_full	COLD START
wlan.signal_strength	MEDIA CALIBRATING
odometer.total_print_length	
wlan.bssid	

Disabling

A printer may be configured to stop reporting data to the ZPC and Asset Visibility Service 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.

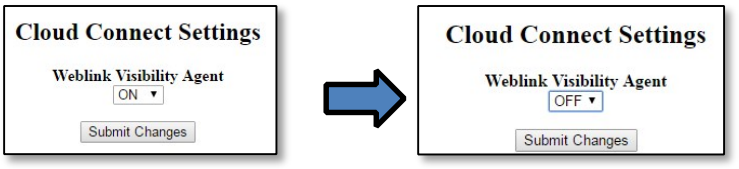


3. Press the up or down keys to change the setting to **OFF**.
   If the password system is active, you will need to enter the Front Panel Password to be able to alter this setting.

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 (i.e., 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**. Press the **Submit Changes** button to accept the change.



6. After submitting your changes, click the **View and Modify Printer Settings link**. Click the **Save Current Configuration** button 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 detailed 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 the Asset Visibility Service):

   ! 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.

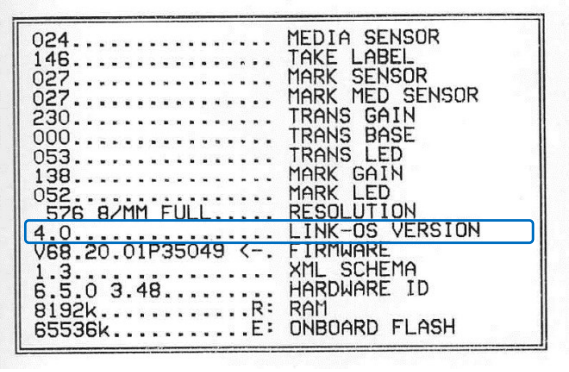
To print a printer configuration label:

Using your preferred software or Zebra Setup Utilities, send the following ZPL command:

~WC

NOTE: Be sure 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.

Document Control

Version	Date	Description
1	September, 2016	Initial release of Disabling of Zebra Printer Connector and Visibility Agent Application Note
2	June, 2016	Update to clarify text
3	January 2018	Updated to include new printers, later Link-OS versions and ini file updates.

Disclaimer

All links and information provided within this document are correct at time of writing.