



Bluetooth Printer Management

Demonstrate it with SOTI MobiControl and Printer Profile Manager Enterprise

Revision 5

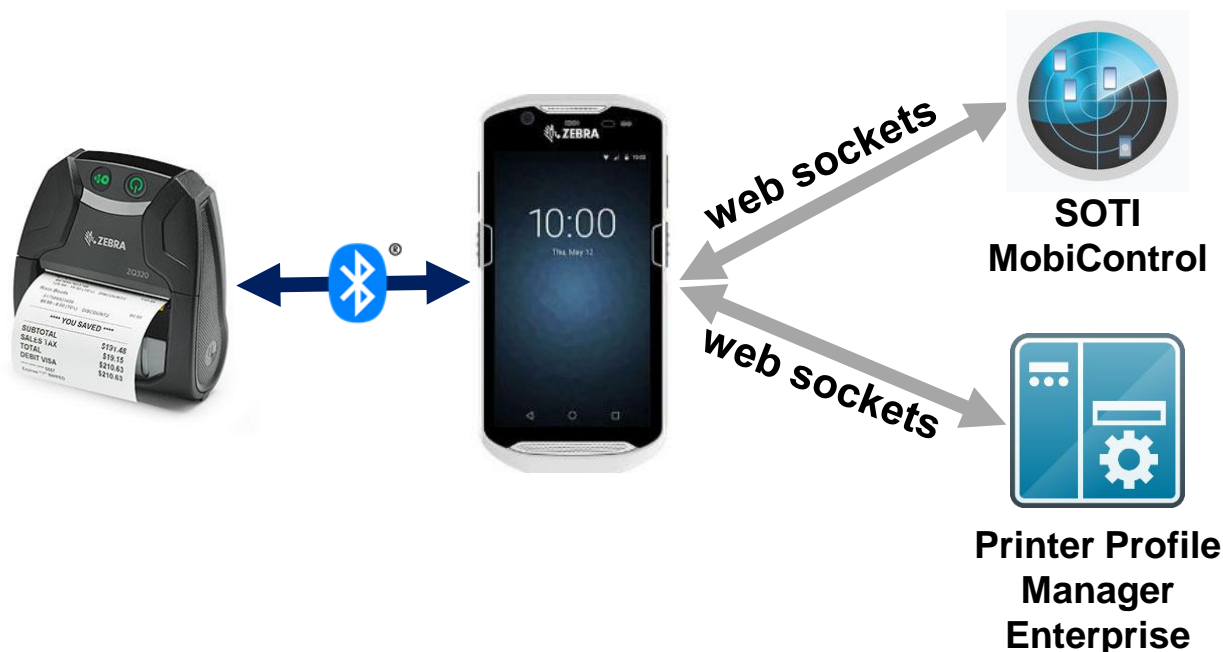
AGILITY
VISIBILITY
SECURITY



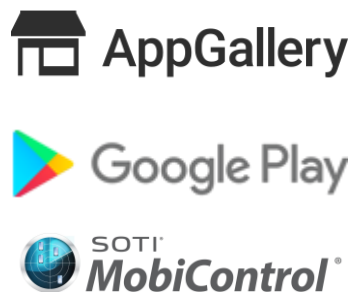
Why Bluetooth Printer Management

Project Goals

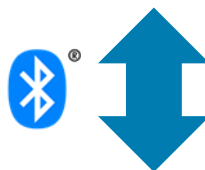
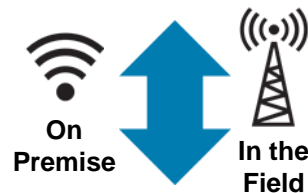
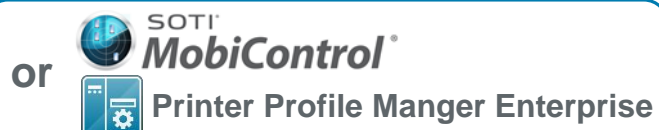
- Create an industry first solution that allows printers to be managed via Bluetooth, in or outside 4 walls.
- Enable management of the 40% of our Mobile printers that are connected to a handheld via Bluetooth (**Visibility, Management**).
- Users can view real-time printer status, download objects, retrieve content from printer, update printer OS as needed with Bluetooth connected Link-OS printers.
- Ability for IT staff to manage Bluetooth printers from SOTI MobiControl or Printer Profile Manager Enterprise by using an Android device as a gateway.
- Enhance the ZQ300 series printer release, by timing Bluetooth Printer Management to release in association with ZQ300 series.



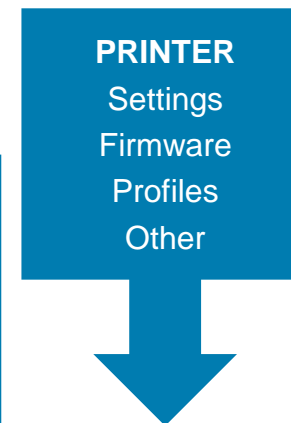
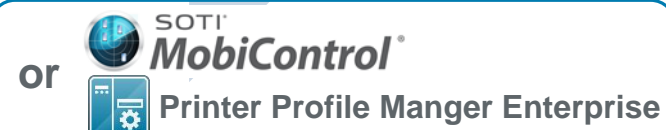
Install Applications



Connect Printer → Android → MDM



Manage Printer settings, status, OS



Before you start ...

- Our Cloud based demo instances of **SOTI MobiControl** and **Printer Profile Manager Enterprise (PPME)** will be used in this demo.
 - Rules and profiles have been prepared in MobiControl for this demo.
 - Resources have been added to Printer Profile Manager Enterprise for this demo.
 - Demos on customer specific instances require the customer's weblink URL to be set in Bluetooth Connector and configuration of any specific network access requirements.
- It's recommended that firmware or large file downloads are not performed during the demo as they can take 15 minutes or longer.
- In Android 6.0 and later, you are requested to allow permissions at runtime rather than during installation as in previous versions of Android.
- Detailed usage of the SOTI MobiControl and Printer Profile Manager Enterprise features are beyond the scope of this demo.

Requirements for this demo

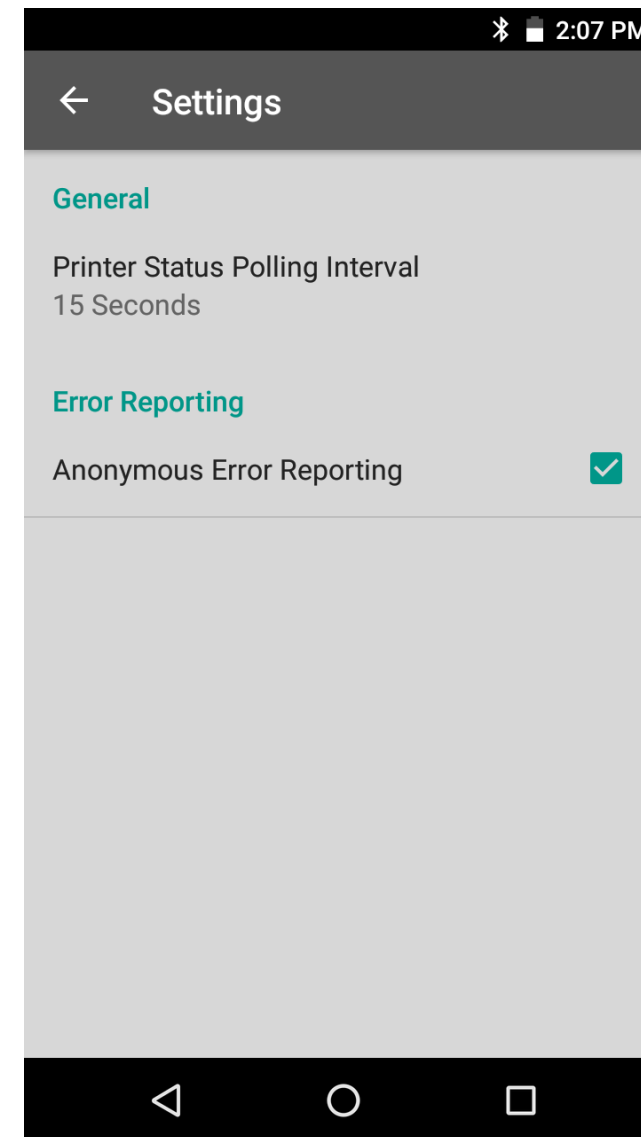
- Android device running Android 4.4 – 7.1
- Bluetooth capable Link-OS printer with firmware version x.19.13z or later.
 - Version **x.20.01z** or later is recommended.
- A WiFi or cellular data connection from the Android device to the MDM.
- Browser capable device to login to the MDM console.

Prepare your Android device

- ✓ Install both the **Bluetooth Connector** and **Connection Manager** applications.
 - After release, both applications will be available from the following sources:
 - On Google Play
 - Zebra Technologies AppGallery
 - Zebra Technologies website: www.zebra.com/bluetoothprintermanagement
- ✓ Install Zebra's **Printer Setup** app (available on Google Play or AppGallery).
- ✓ On your Android device, ensure Bluetooth is turned on.
- ✓ On your Android device, ensure NFC is enabled if your device supports it.
- ✓ On your Android device, ensure you have an active internet connection via WiFi or cellular data.
- ✓ On your printer, ensure Bluetooth is enabled.

Configure Connection Manager

- Launch Connection Manager.
- If prompted, allow all required permissions.
- Open Settings and change the **Printer Status Polling Interval** to the minimum 15 seconds.



Configure Bluetooth Connector

- Launch Bluetooth Connector
- Open Settings and tap **Server URL**. Tap **Scan a Server QR Code**.
- Choose your demo:
 - Scan a QR code below for either SOTI MobiControl or PPME.

SOTI MobiControl

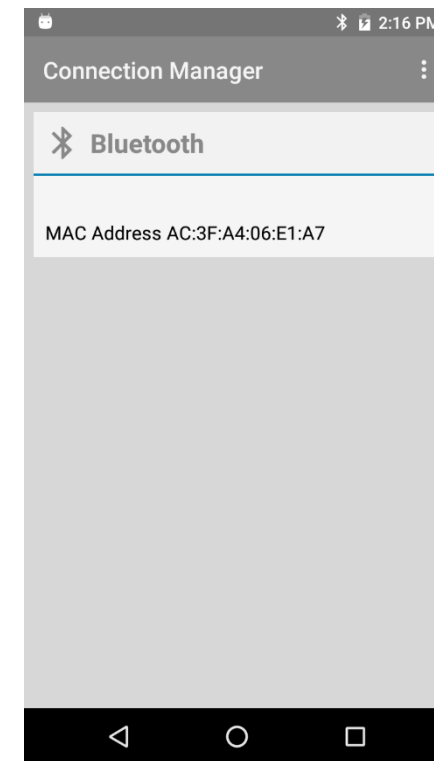
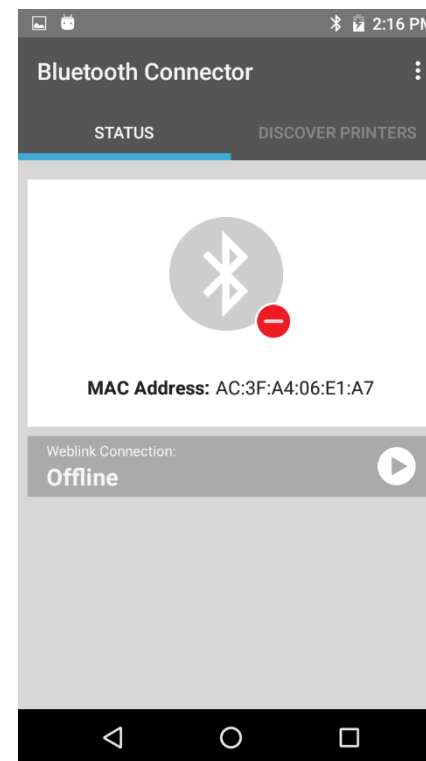
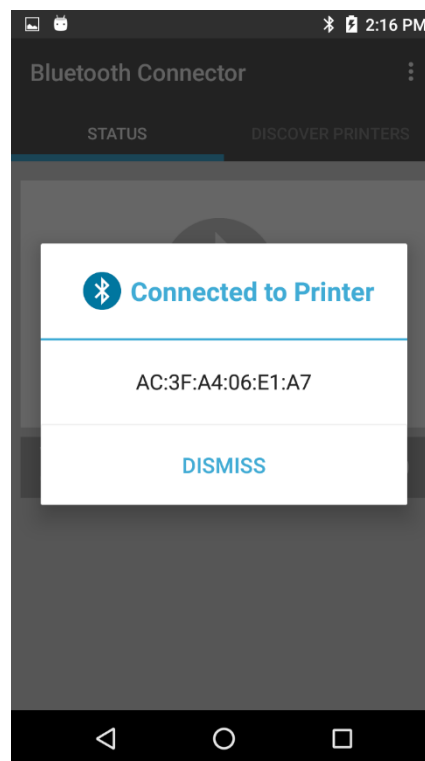
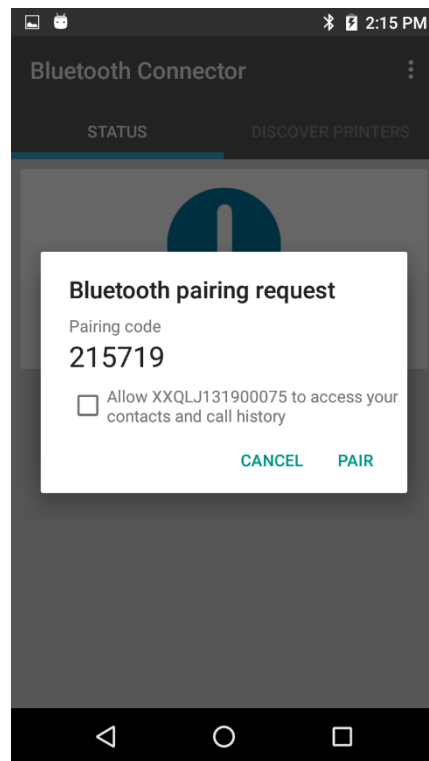
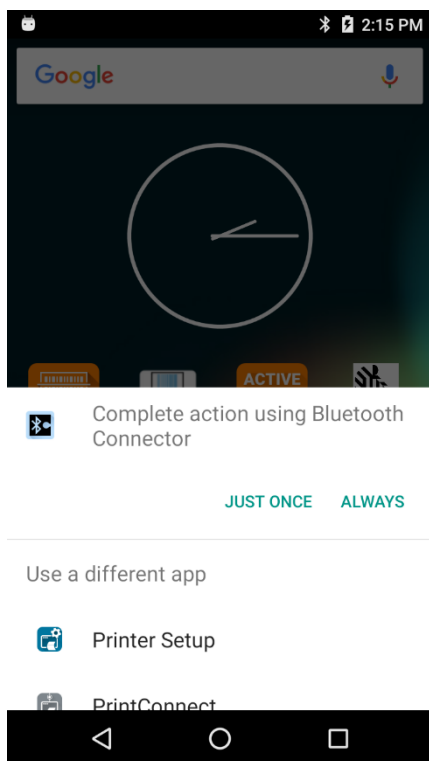


PPME



Connect the printer to the Android device

- Use the NFC Bump 'n' Pair method (aka Print Touch) to connect the printer to the Android device. If prompted, select **Bluetooth Connector** from the 'Complete action using ...' dialog.
- The printer's Bluetooth MAC address should be visible in both applications after successful pairing.

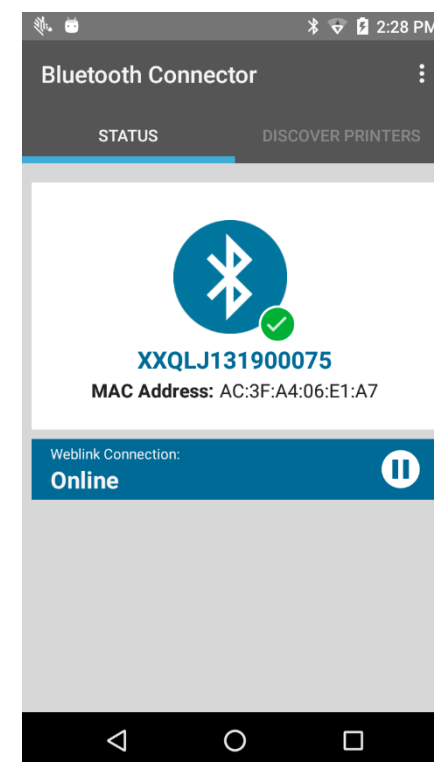
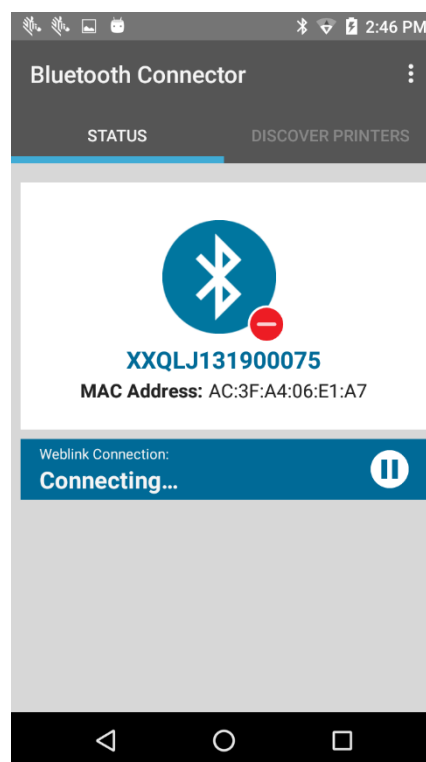
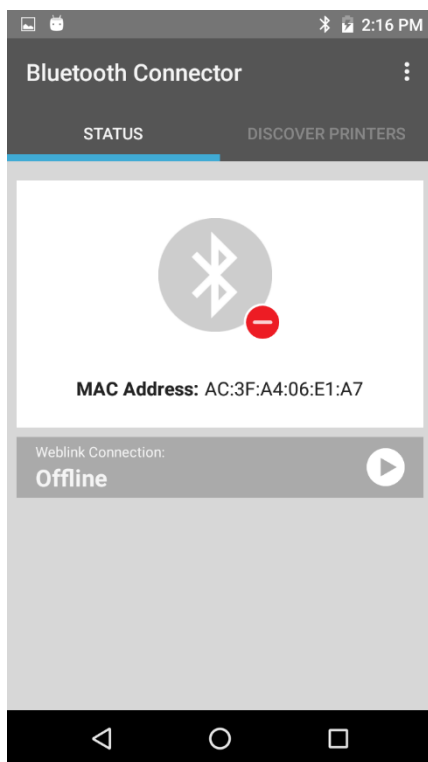


Connect the printer to the Android device

- Use one of the methods below when the NFC Bump 'n' Pair method is not available:
 - Discover printer
 - In Bluetooth Connector, tap the DISCOVER PRINTERS tab and select your printer from the list.
 - Manually add a printer
 - Open Bluetooth Connector settings and tap Selected Printer.
 - Enter the printer Bluetooth MAC address in the format AA:BB:CC:11:22:33

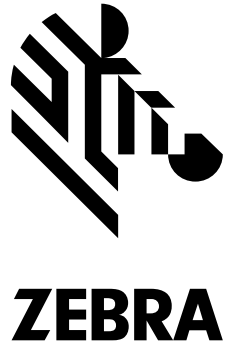
Connect to the MDM application

- If the connection is not made automatically, tap the  icon on the **Bluetooth Connector** status tab to initiate the connection to the MDM.



Choose your demo

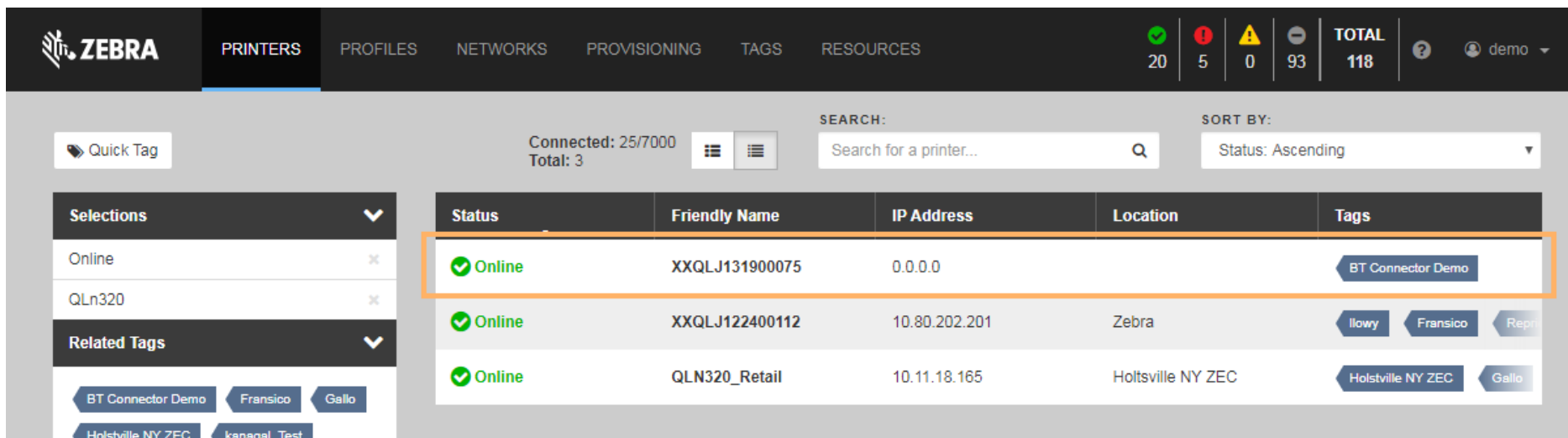
- [Demo with Printer Profile Manager Enterprise](#)
- [Demo with SOTI MobiControl](#)



DEMO WITH PRINTER PROFILE MANAGER ENTERPRISE

Demo with Printer Profile Manager Enterprise

- Log in to the Printer Profile Manager Enterprise console:
 - <https://demo-zebra.link-os.com/linkos/>
 - Username: demo Password: Password1&
- Your printer should be visible and online in the console.

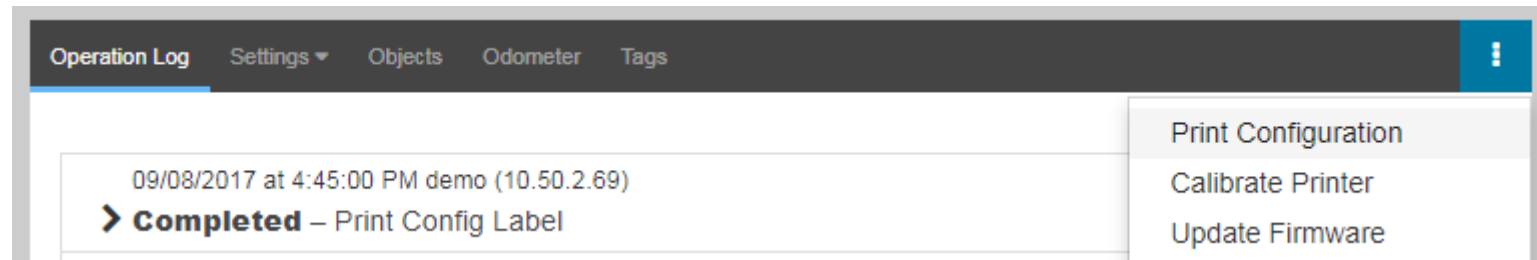


The screenshot displays the Zebra Printer Profile Manager Enterprise console interface. The top navigation bar includes the ZEBRA logo and tabs for PRINTERS, PROFILES, NETWORKS, PROVISIONING, TAGS, and RESOURCES. The PRINTERS tab is active. On the right, a status summary shows 20 green checkmarks, 5 red exclamation marks, 0 yellow warning triangles, and 93 grey minus signs, with a TOTAL of 118. Below this, a search bar and a 'SORT BY' dropdown (set to 'Status: Ascending') are visible. The main area shows a list of printers with columns for Status, Friendly Name, IP Address, Location, and Tags. Three printers are listed, all with a green checkmark and 'Online' status. The first printer, XXQLJ131900075, is highlighted with an orange border. The left sidebar contains a 'Quick Tag' button and a 'Selections' dropdown menu with 'Online' and 'QLn320' options. Below this is a 'Related Tags' section with buttons for 'BT Connector Demo', 'Fransico', 'Gallo', 'Holstville NY ZEC', and 'kanagal Test'.

Status	Friendly Name	IP Address	Location	Tags
✓ Online	XXQLJ131900075	0.0.0.0		BT Connector Demo
✓ Online	XXQLJ122400112	10.80.202.201	Zebra	llowy Fransico Rep
✓ Online	QLN320_Retail	10.11.18.165	Holstville NY ZEC	Holstville NY ZEC Gallo

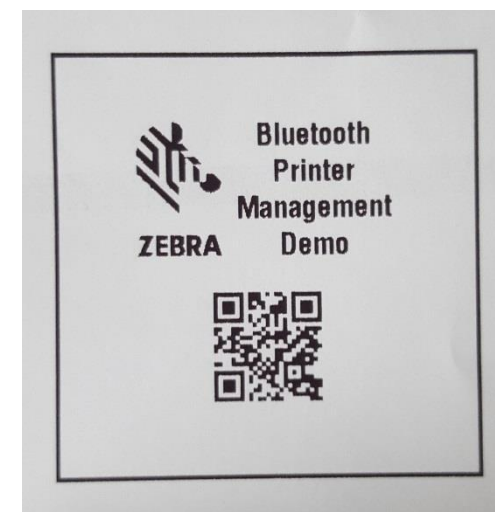
Quick test

- To confirm the connection, use the 'Print Configuration' option on the printer landing page.
 - The printer configuration page should print.



Send a resource

- Select the RESOURCES tab.
- Click the resource named **bt-management-demo-label.zpl**.
- Send the resource to your printer.
- The demo label will print.



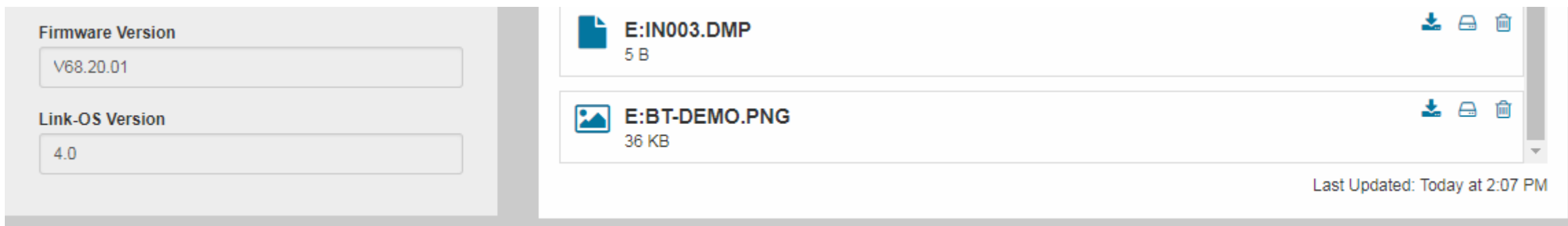
Store & remove an object

- Select the RESOURCES tab.
- Click the resource named **bt-management-demo-object.zpl**.
- Store the resource on your printer.











Store & remove an object

- Go to the **Objects** tab on the printer's landing page.
- Click Refresh Objects.
- Verify the BT-DEMO.PNG file is listed.
- From the objects listing, remove the object from the printer.
 - The object listing will be refreshed automatically.
 - Verify the BT-DEMO.PNG has been removed from the printer.



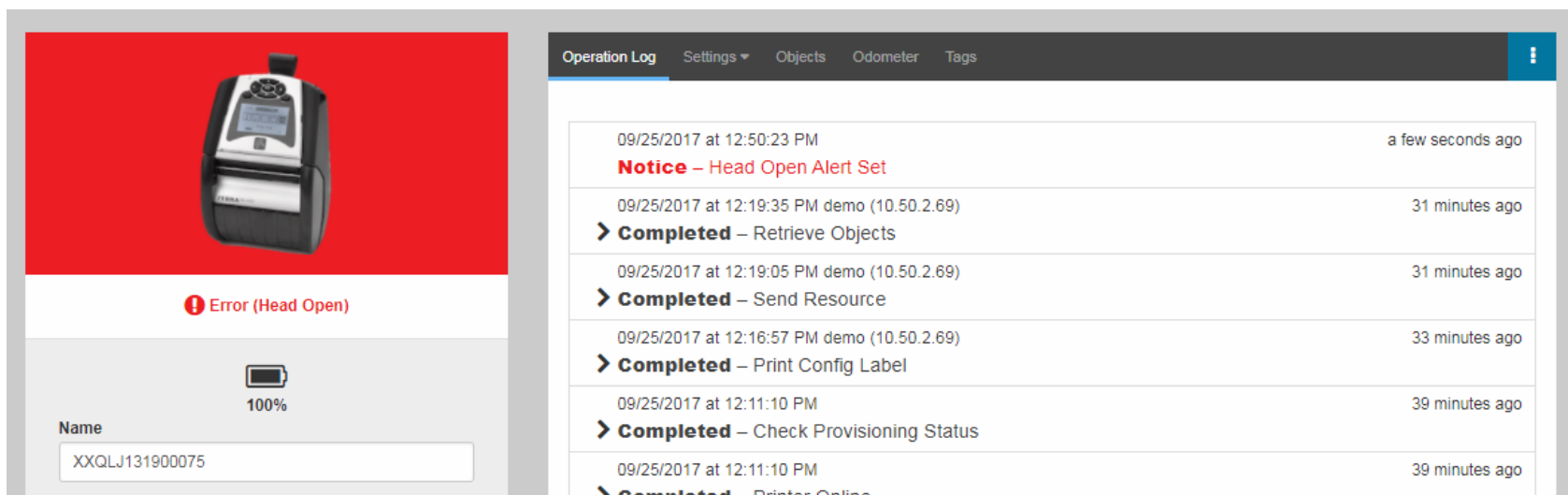
The screenshot displays the printer's management interface. On the left, there are two input fields: 'Firmware Version' with the value 'V68.20.01' and 'Link-OS Version' with the value '4.0'. On the right, a table lists stored objects. The first row shows a file icon, the name 'E:IN003.DMP', the size '5 B', and three action icons (download, print, delete). The second row shows a picture icon, the name 'E:BT-DEMO.PNG', the size '36 KB', and the same three action icons. A vertical scrollbar is visible on the right side of the table. At the bottom right, a status message reads 'Last Updated: Today at 2:07 PM'.

Icon	Object Name	Size	Actions
	E:IN003.DMP	5 B	  
	E:BT-DEMO.PNG	36 KB	  

Last Updated: Today at 2:07 PM

Show an alert

- Go to the printer landing page.
- Open the printhead and/or create an out of media condition.
- The status will change in the console within the 15 second polling interval.

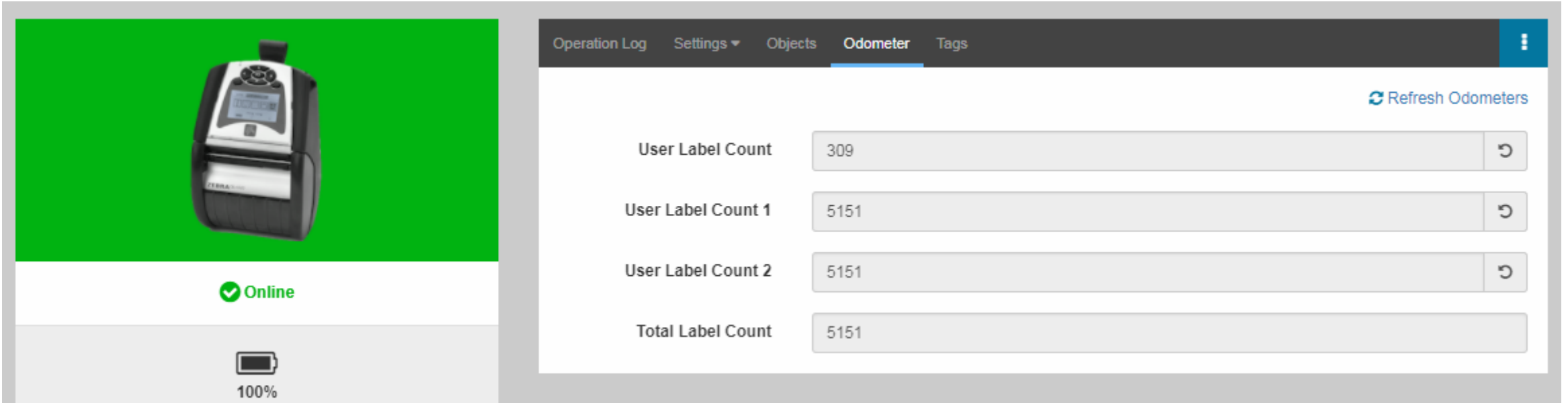


The screenshot displays the Zebra printer management interface. On the left, a printer card for 'XXQLJ131900075' shows a red background with a printer icon and a red error message: 'Error (Head Open)'. Below the printer icon, a battery status indicator shows '100%'. On the right, the 'Operation Log' tab is active, displaying a list of recent operations:

Timestamp	Operation	Time Ago
09/25/2017 at 12:50:23 PM	Notice – Head Open Alert Set	a few seconds ago
09/25/2017 at 12:19:35 PM demo (10.50.2.69)	Completed – Retrieve Objects	31 minutes ago
09/25/2017 at 12:19:05 PM demo (10.50.2.69)	Completed – Send Resource	31 minutes ago
09/25/2017 at 12:16:57 PM demo (10.50.2.69)	Completed – Print Config Label	33 minutes ago
09/25/2017 at 12:11:10 PM	Completed – Check Provisioning Status	39 minutes ago
09/25/2017 at 12:11:10 PM	Completed – Printer Online	39 minutes ago

View printer information – Part 1

- Click the Odometer tab on the printer landing page.
- Observe and note the Odometer values.
- You'll revisit this later.

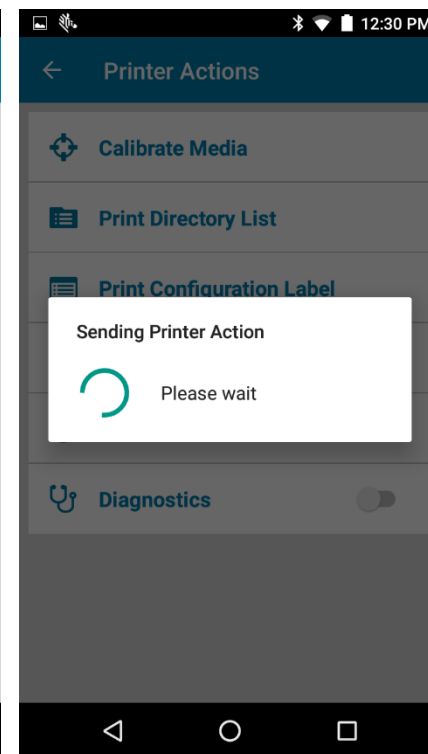
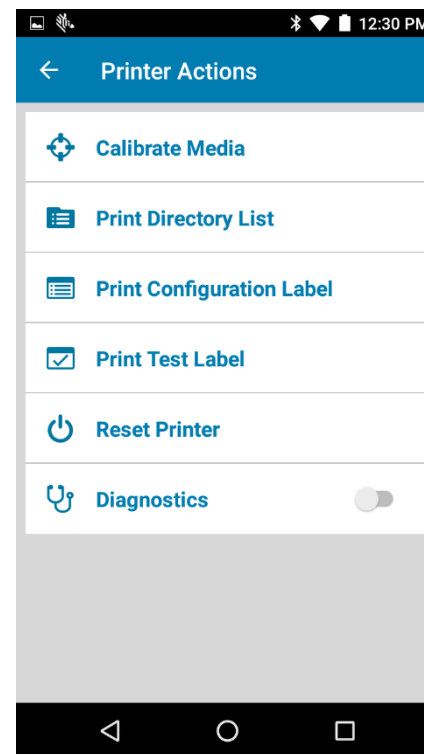
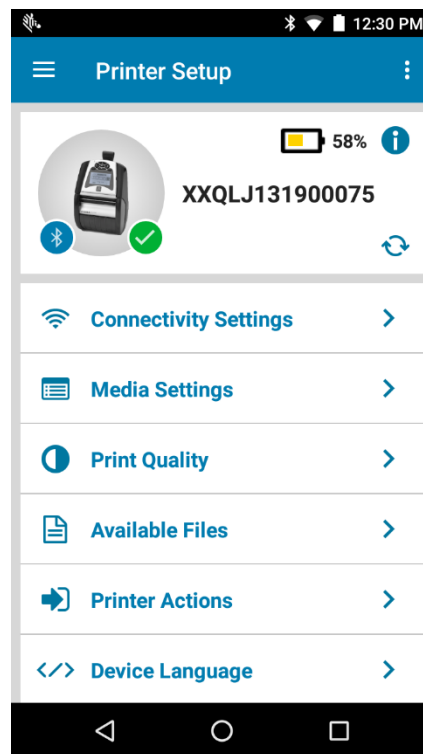


The screenshot displays the Zebra printer management interface. On the left, a printer image is shown against a green background, with a green checkmark and the text "Online" below it. At the bottom left, a battery icon indicates "100%" charge. The main panel on the right has a dark header with tabs: "Operation Log", "Settings", "Objects", "Odometer" (selected), and "Tags". A "Refresh Odometers" button is in the top right of the main panel. Below the header, four rows of data are displayed, each with a label and a value in a light gray box, followed by a circular refresh icon:

Label	Value
User Label Count	309
User Label Count 1	5151
User Label Count 2	5151
Total Label Count	5151

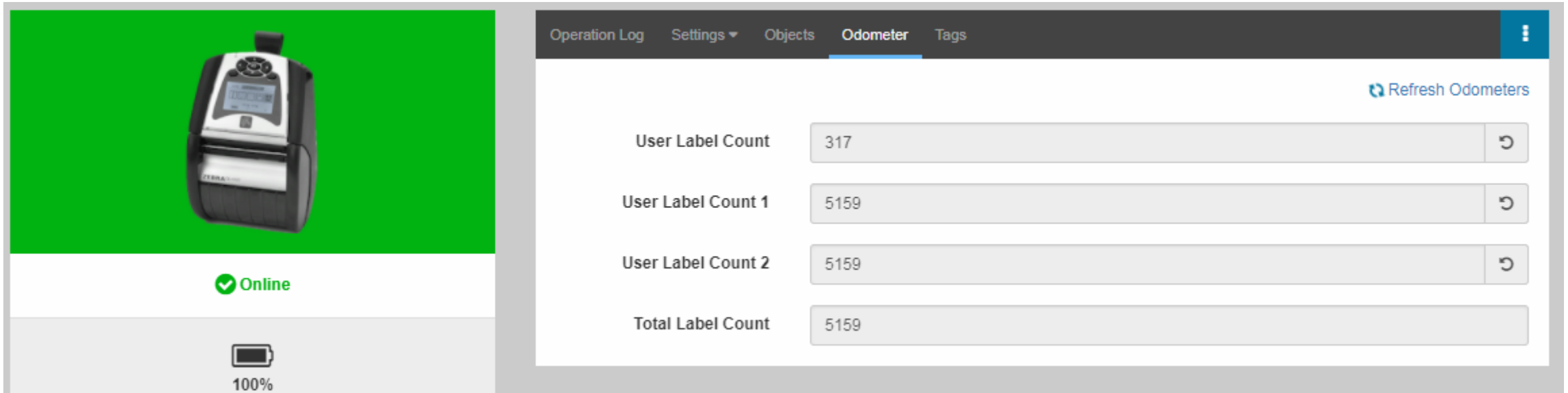
Print from an application

- Use **Printer Setup** to simulate a printing app and to increase the printer's Odometer values which can then be viewed in the console.
- Launch **Printer Setup** and use the NFC Bump 'n' Pair method to connect to the printer. If prompted, select **Printer Setup** from the 'Complete action using ...' dialog.
- Tap **Printer Actions** and then **Print Test Label**. A label should print.
 - Repeat if you wish to print multiple labels.
- De-select the printer when finished.



View printer information – Part 2



- Click Refresh Odometers.
- Observe the label count values have increased.

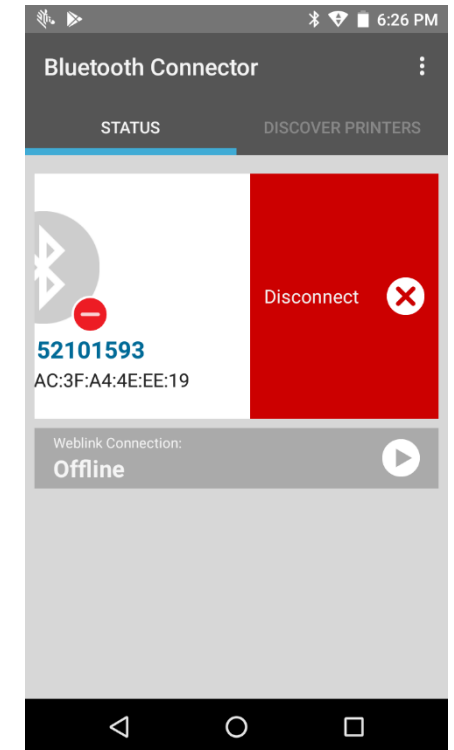


The screenshot displays the Zebra printer management interface. On the left, a Zebra printer is shown with a green background, indicating it is online. Below the printer image, a green checkmark and the word "Online" are visible, along with a battery icon showing 100% charge. On the right, the "Odometer" tab is selected in the top navigation bar. The main content area shows four odometer readings: "User Label Count" (317), "User Label Count 1" (5159), "User Label Count 2" (5159), and "Total Label Count" (5159). Each reading has a refresh button (circular arrow icon) to its right. A "Refresh Odometers" button is also present in the top right corner of the main content area.

Label Count Type	Value
User Label Count	317
User Label Count 1	5159
User Label Count 2	5159
Total Label Count	5159

You're almost done!

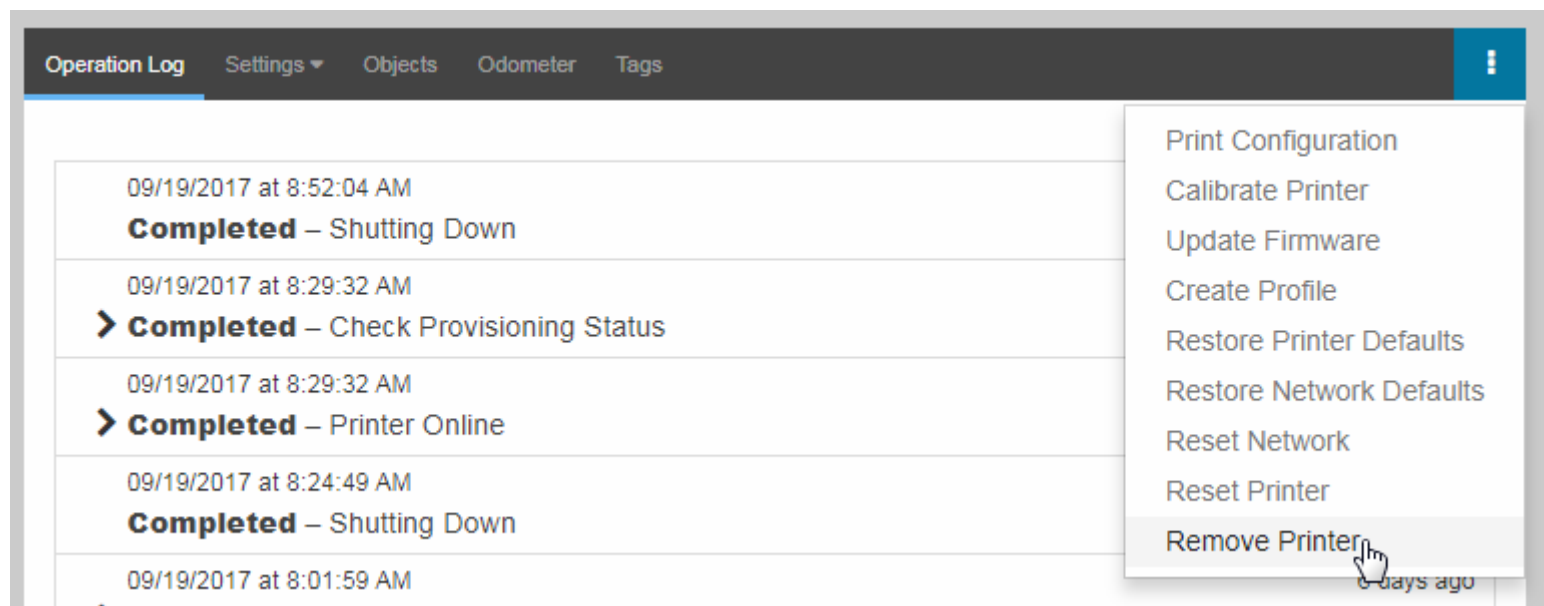
- The feature demonstration is complete.
- Disconnect the printer from PPME by tapping the  icon on the Bluetooth Connector STATUS tab.
- Disconnect the printer from the Android device by swiping the Bluetooth icon and tapping the  icon.
- Continue to the next step - 'housekeeping'.

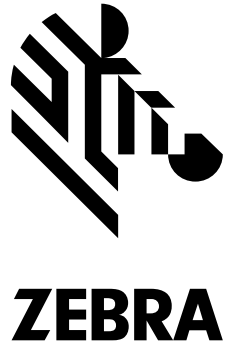


Some housekeeping ...

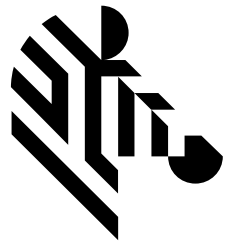
- We ask that you now remove your printer from PPME.
 - Use the remove printer option from the printer's landing page.

Thank You!





**YOU HAVE COMPLETED
THE DEMO WITH PRINTER
PROFILE MANAGER
ENTERPRISE**











ZEBRA

DEMO WITH SOTI MOBICONTROL

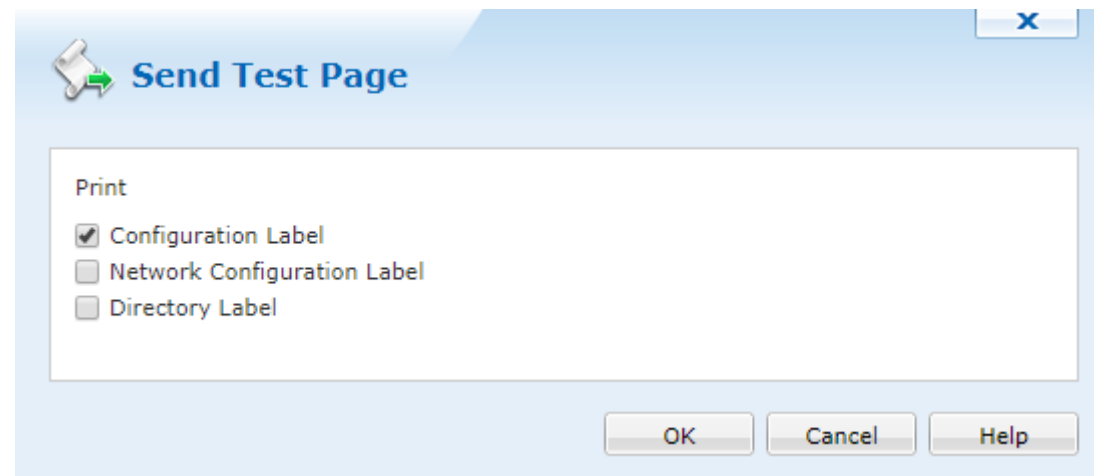
Demo with SOTI MobiControl

- Log in to the MobiControl console:
 - <https://zebratest2.mobicontrolcloud.com/MobiControl/WebConsole/Home>
 - Username: zebra Password: SOTIZEBRA
- Your printer should be visible and online under the Zebra section in the console.

	Icon	Device Name ▲	Available Memory	Persistent Storage	Device ID	WiFi Network (SSID)
Clean		iMZ220 -XXXXXJ132201688	22 KB / 4 MB	16 KB / 16 MB	XXXXXJ132201688	ZGuest
Kevin		Printer 9	29 KB / 32 MB	23 / 512 MB	76J162700890	WLC-SCAN
My Company		QLn220 -XXQPJ124800513	23 KB / 8 MB	0 bytes / 64 MB	XXQPJ124800513	125
Nikolaj Test		QLn320 -XXQLJ124800014 -192.168.1.5	23 KB / 8 MB	272 KB / 64 MB	XXQLJ124800014	gowhitesox
PaccarDemo		QLn320 -XXQLJ131900075	23 KB / 8 MB	9 / 64 MB	XXQLJ131900075	201
Paris		QLn320 -XXQLJ142701807 -172.16.10...	24 KB / 8 MB	172 KB / 64 MB	XXQLJ142701807	888
Poland TD		QLn320 -XXQLJ143003533	23 KB / 8 MB	166 KB / 64 MB	XXQLJ143003533	201
Test Android Devices		QLn420 -XXQVJ125000065	23 KB / 8 MB	15 / 64 MB	XXQVJ125000065	PF-ZONE WPA-PSK
Zebra						
Firmware						
SolutionCenter						
ZebraPrinters						
ZSolutionCenter						

Quick test

- To confirm the connection, use the 'Send Test Page' option in MobiControl
 - The printer configuration page should print within 15 seconds.



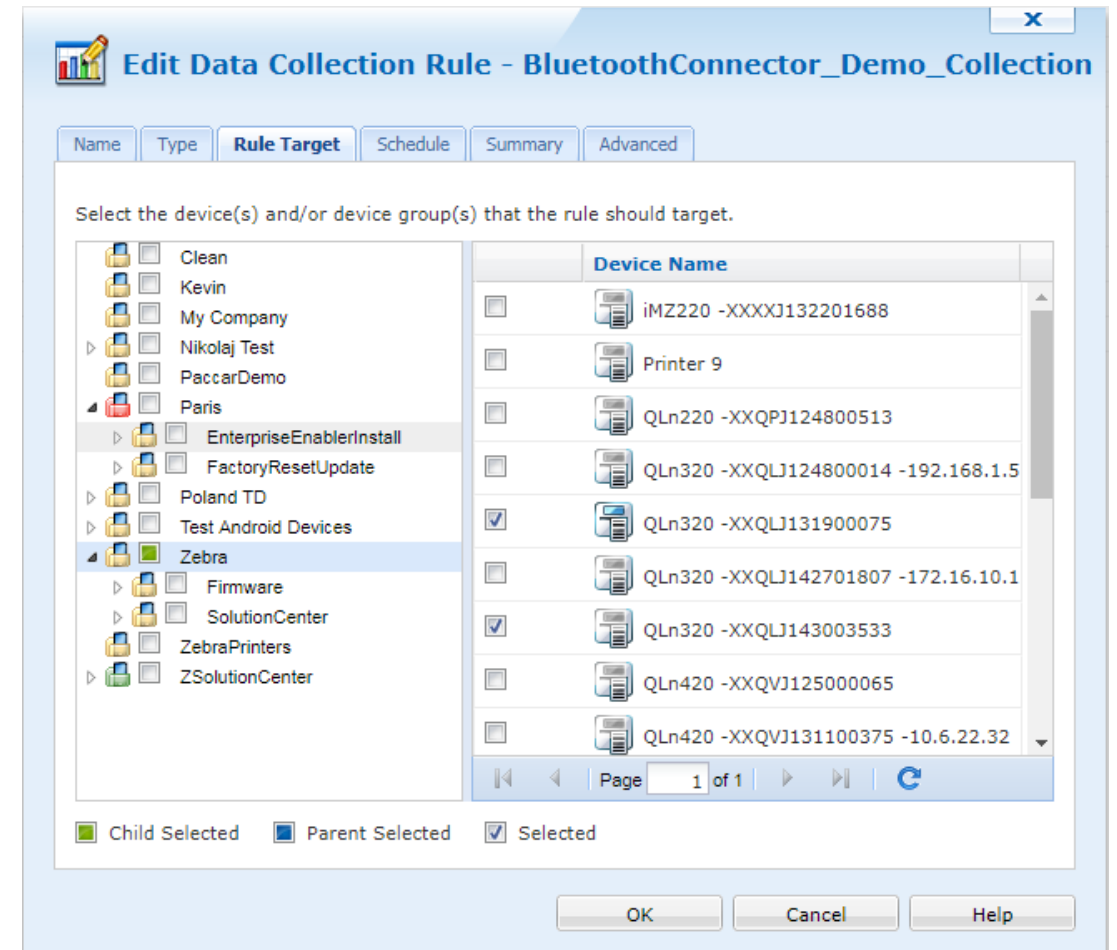
Data collection – Part 1

- In MobiControl, assign your printer to the rule named BluetoothConnector_Demo_Collection
- MobiControl will start collecting the following data from the printer every 2 minutes.

Collected Items

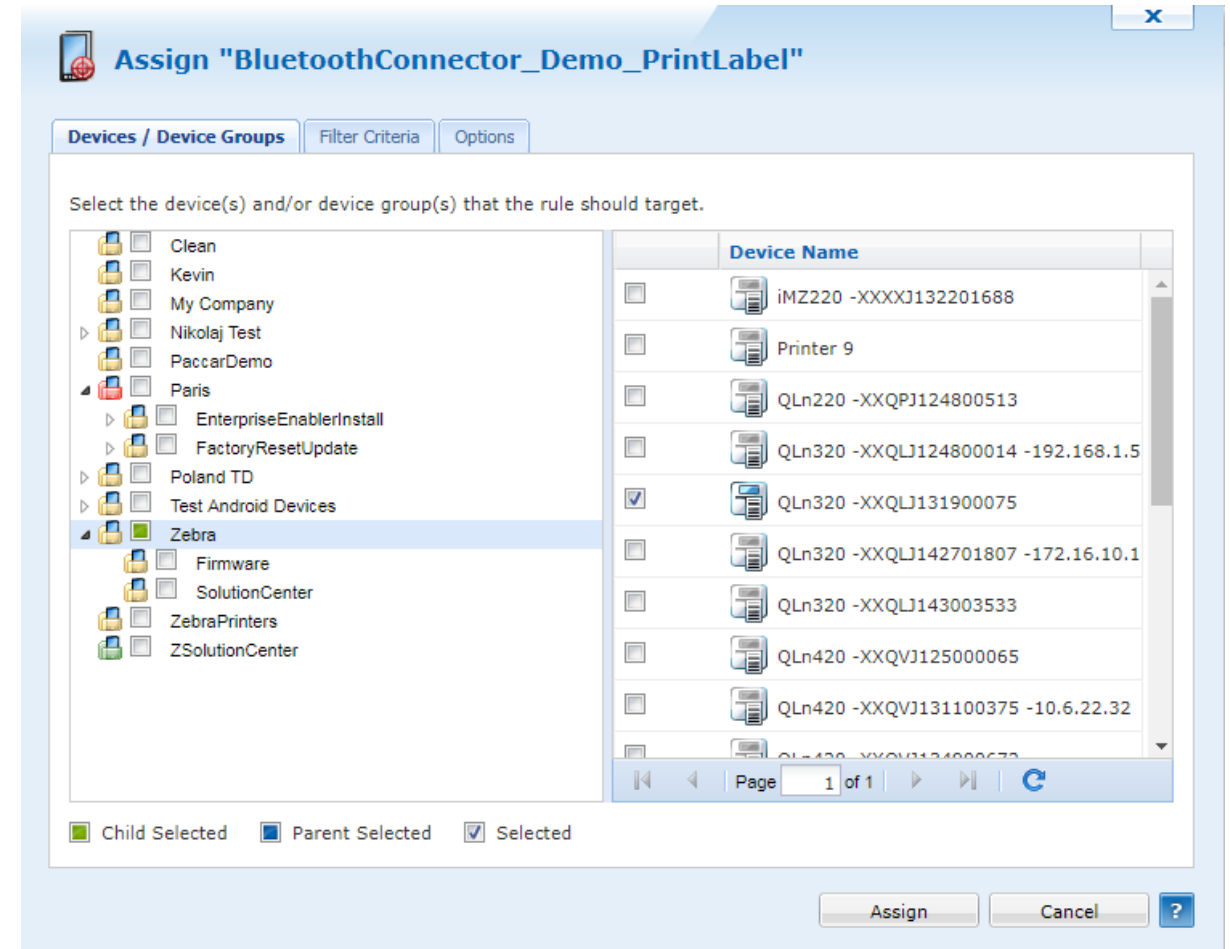
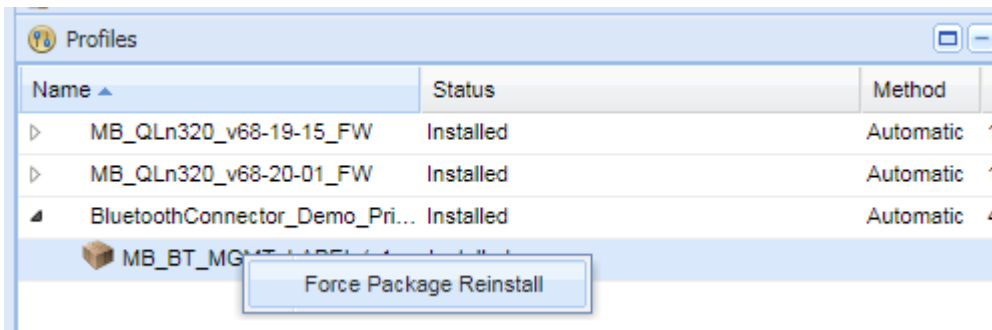
Name
Printer Battery Status
Number of Labels Printed
Battery Voltage
Battery serial no
Battery Health

- You'll revisit this later.



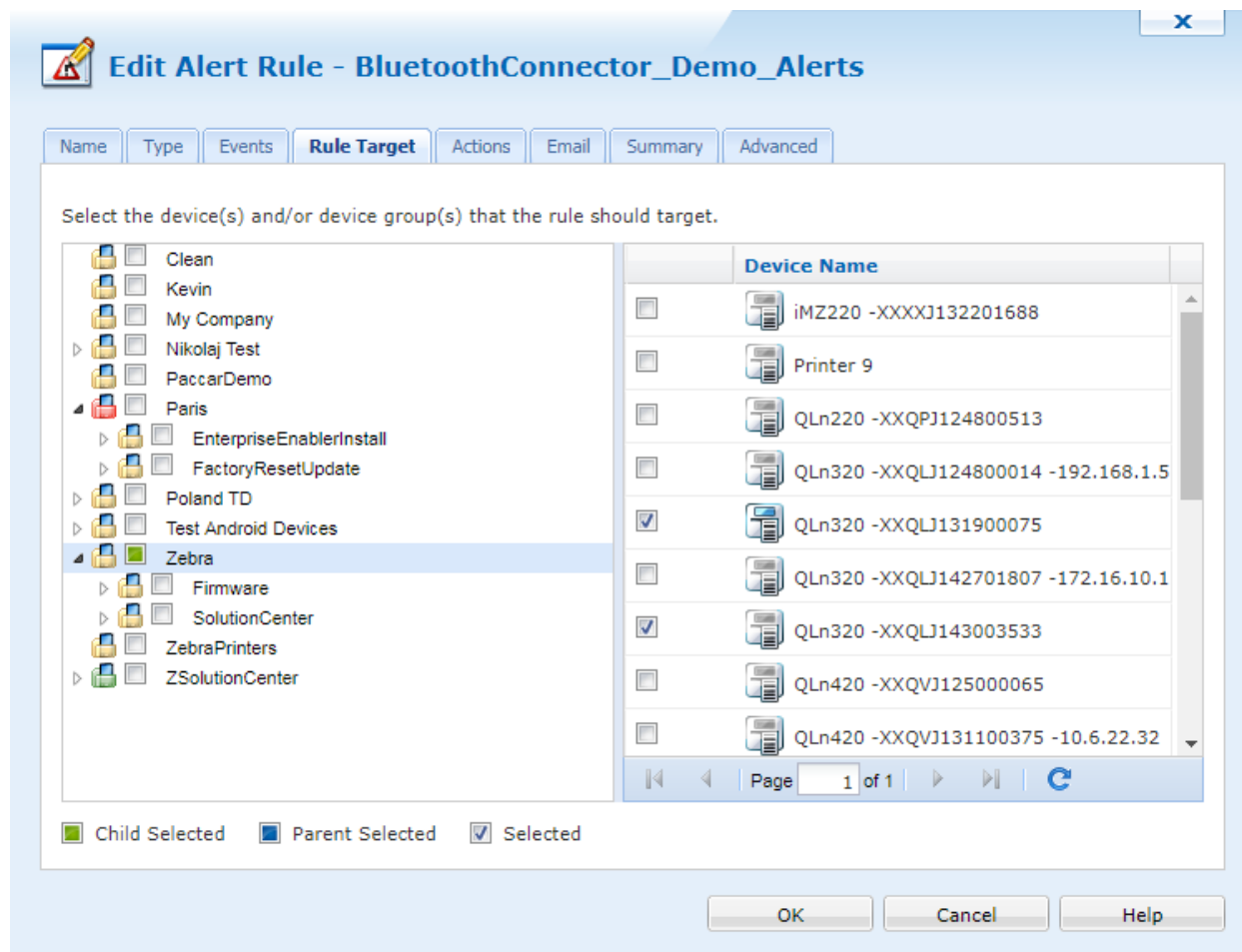
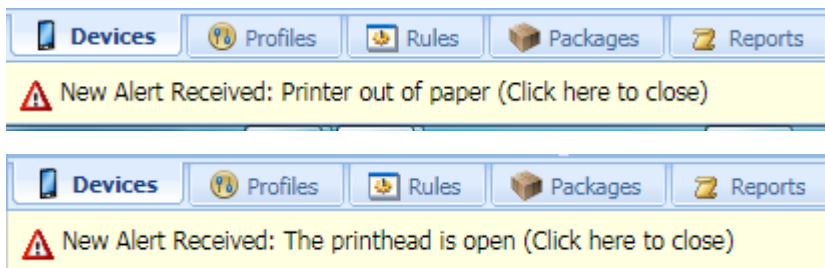
Send a resource

- In MobiControl, assign your printer to the profile named BluetoothConnector_Demo_PrintLabel
- The profile will be sent to your printer and a label should print.
- You can resend it using the 'Force Package Reinstall' option.



Show an alert

- In MobiControl, assign your printer to the rule named BluetoothConnector_Demo_Alerts
- Open the printhead and/or create an out of media condition.
- The alert will appear at the bottom of the console within the 15 second polling interval.



Data collection – Part 2

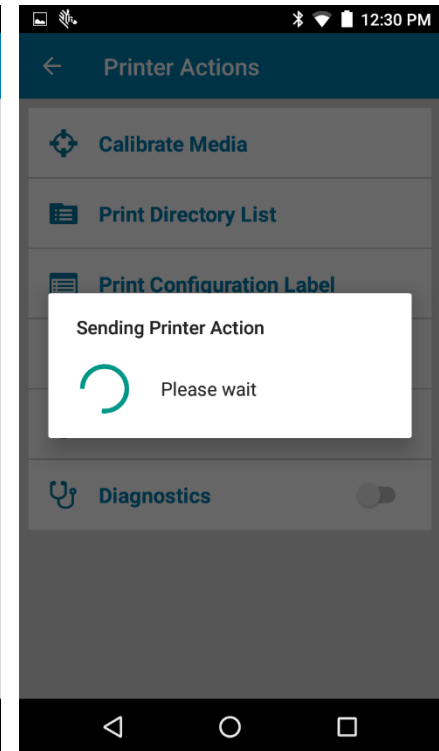
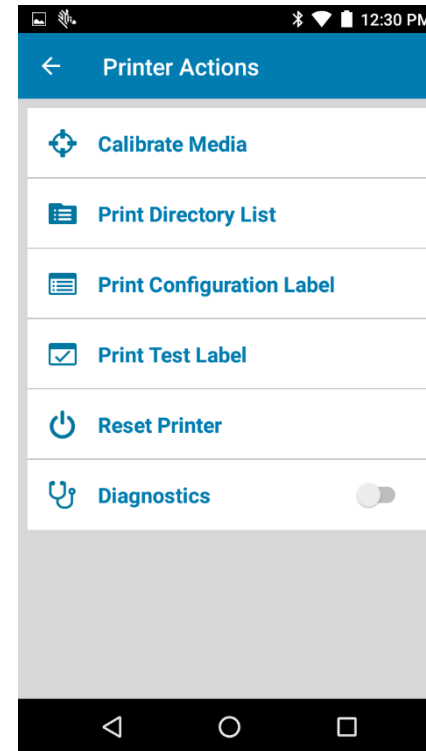
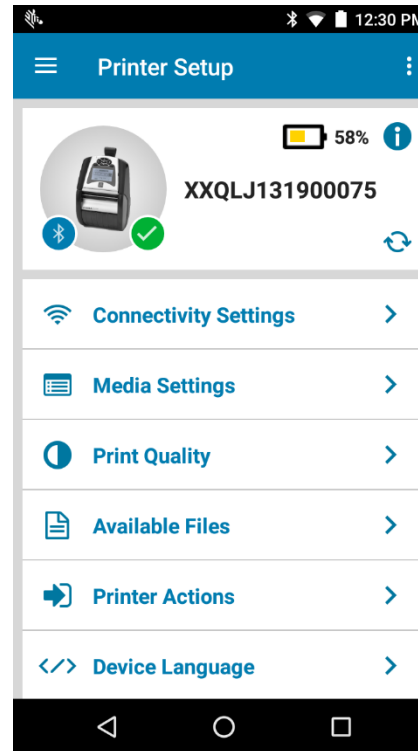
- In MobiControl, select your printer and view the ‘number of labels printed’ in the data collected area. Some data should have been collected.

Number of Labels Printed		Start: 08/31/2017	End: 09/02/2017	
Date	Value			
2017-09-01 12:21:48 PM	5028			
2017-09-01 12:19:48 PM	5028			
2017-09-01 12:17:47 PM	5028			

- You'll revisit this again later.

Print from an application

- Use **Printer Setup** to simulate a printing app and also to see the 'number of labels printed' value change in the collected data.
- Launch **Printer Setup** and use the NFC Bump 'n' Pair method to connect to the printer. If prompted, select **Printer Setup** from the 'Complete action using ...' dialog.
- Tap **Printer Actions** and then **Print Test Label**. A label should print.
 - Repeat if you wish to print multiple labels.
- De-select the printer when finished.





Data collection – Part 3

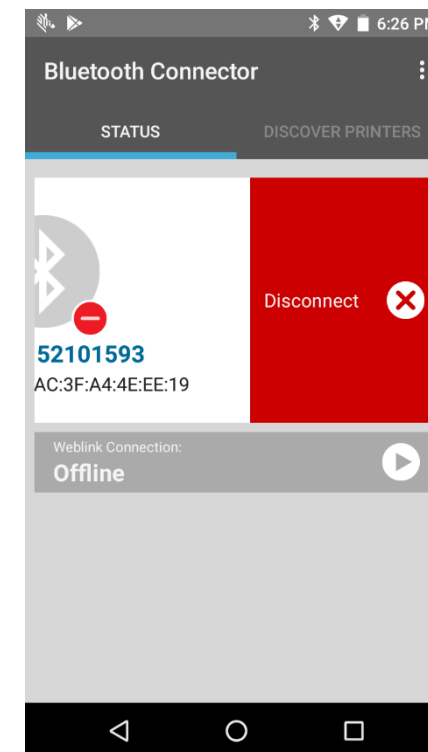
- Review the collected data again. The ‘number of labels printed’ value should have increased.
 - Review the time and ensure 2+ minutes have past since printing the label. Click refresh if necessary.
 - Values of all collected data may not change due to the short time taken to perform the demo.
 - Not all collected data items are supported on all printers.

Number of Labels Printed ▼		Start: 08/31/2017	End: 09/02/2017	↻
Date	Value			
2017-09-01 12:21:48 PM	5028			
2017-09-01 12:19:48 PM	5028			
2017-09-01 12:17:47 PM	5028			

Number of Labels Printed ▼		Start: 08/31/2017	End: 09/02/2017	↻
Date	Value			
2017-09-01 12:33:55 PM	5029			
2017-09-01 12:31:54 PM	5029			
2017-09-01 12:29:53 PM	5028			
2017-09-01 12:27:51 PM	5028			
2017-09-01 12:25:50 PM	5028			


You're almost done!

- The feature demonstration is complete.
- Disconnect the printer from MobiControl by tapping the  icon on the Bluetooth Connector STATUS tab.
- Disconnect the printer from the Android device by swiping the Bluetooth icon and tapping the  icon.
- Continue to the next step - 'housekeeping'.



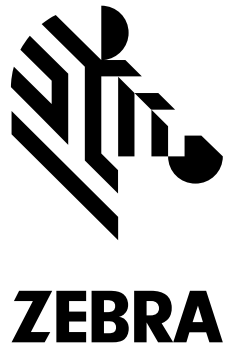
Some housekeeping ...

- This cloud instance of SOTI MobiControl has a limited number of device licenses.
- The maximum number of licenses will eventually be reached if devices are not removed.
 - This prevents other users connecting their devices to perform demos.

 Error 2017-08-30 03:01:22 PM Number of configured device has reached the licensed number (Cannot add a new device '71J172300008' (model 'ZT610') since there are no more Printer licenses available.)

- We ask that you now remove your printer to ensure other users can continue to use this demo.
 - Please remove your printer assignments from the rules and profiles.
 - Please remove your printer from the list of devices.

Thank You!



**YOU HAVE COMPLETED
THE DEMO WITH SOTI
MOBICONTROL**