



Browser Print Android User Guide

Overview

Zebra Browser Print is a set of scripts and an end-user application that allows web pages to communicate with Zebra Printers. The application lets a web page communicate with Zebra devices accessible to the client computer.

Currently, Zebra Browser Print for Android supports Android 7.0 and newer, and supports the Google Chrome browser. It can communicate to Zebra printers connected via Network and Bluetooth. For a more complete list of supported features, see the [Supported Features](#).

This document outlines the basics for installing and using Browser Print for Android:

[Features](#)

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Features

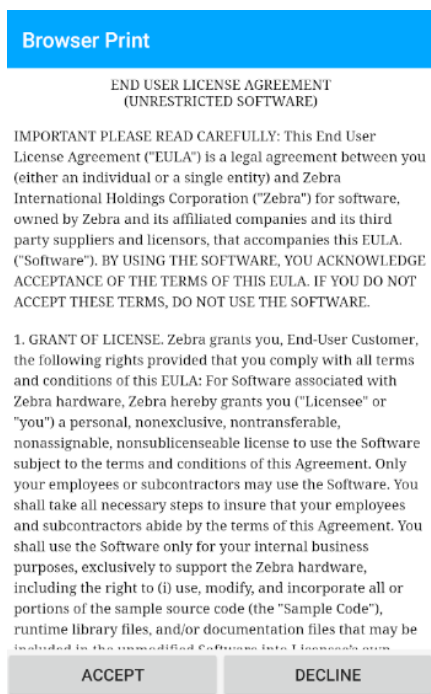
- Allows web page to communicate with Zebra Printers directly through the client device's connection.
- Auto-discovers network and Bluetooth connected Zebra Printers.
- Allows two-way communication to devices.
- Has ability to set a default Printer for the end-user application, independent of the default printer used by the operating system.
- Has ability to print a PNG, JPG or Bitmap image from a URL or Blob

Pre-Installation

1. Please read the section on [Incompatibilities](#) for issues installing or running this program.
2. Enable installing applications from unknown sources on your device. This can be done by going to Settings -> Apps & notifications -> Special app access -> Install unknown apps

Installation

1. Download and install the APK file.
2. Run the application by opening the App Drawer and clicking on the Browser Print icon.
3. When the program runs for the first time, the End User License Agreement will pop-up. Select "Accept".

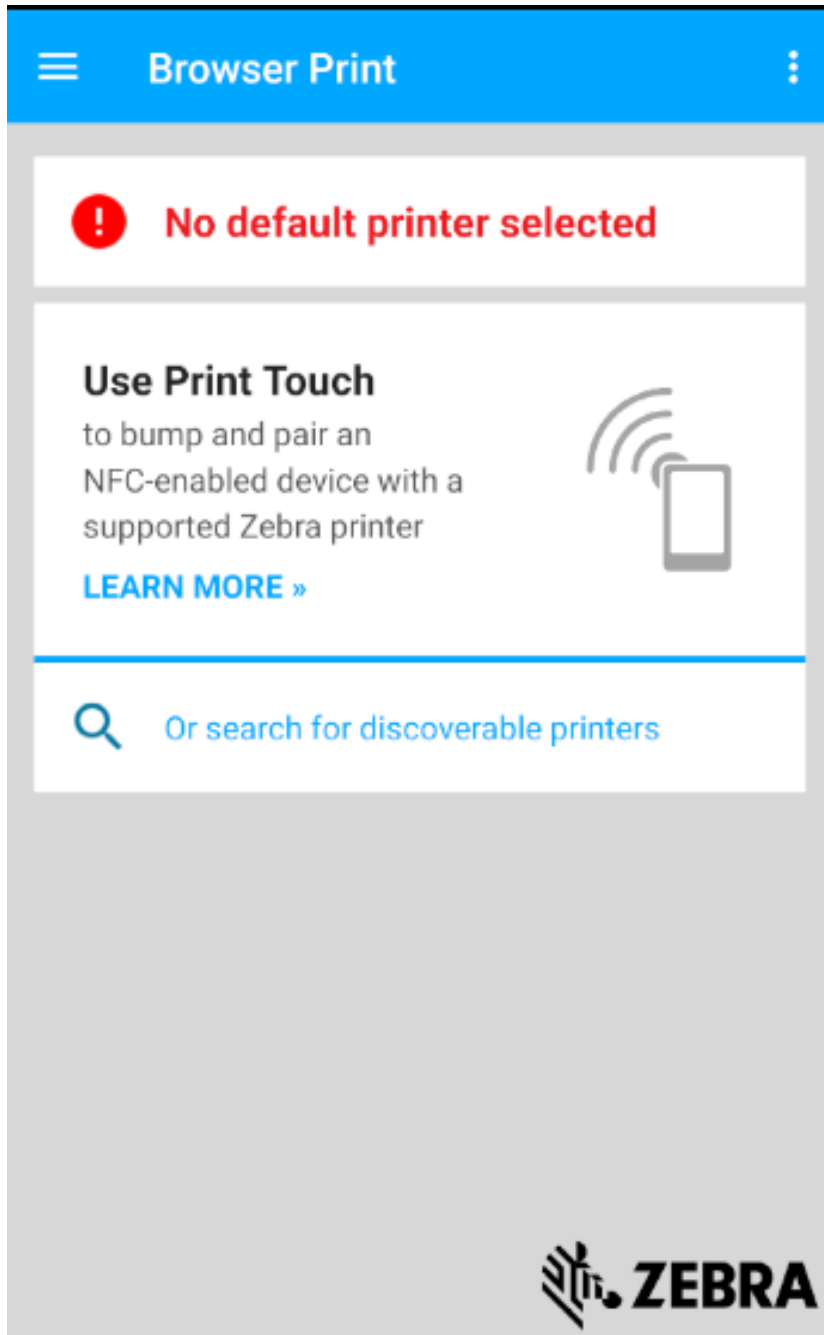


4. The Browser Print service should start once the application has been opened. The Browser Print icon will appear in the notification tray.

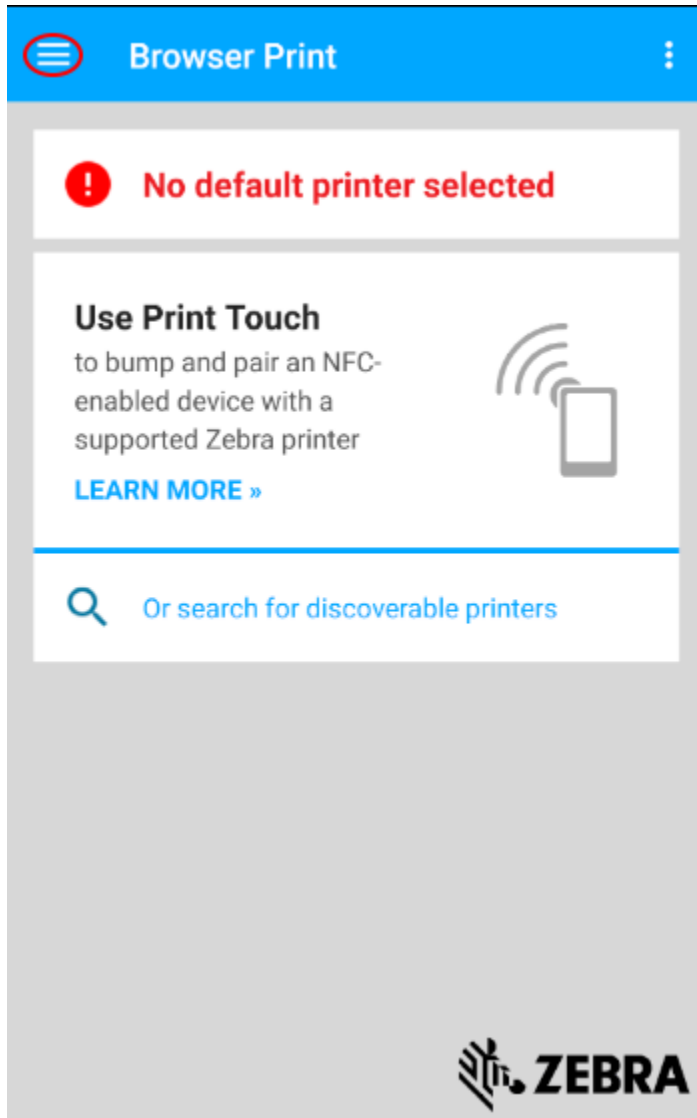


Running Browser Print

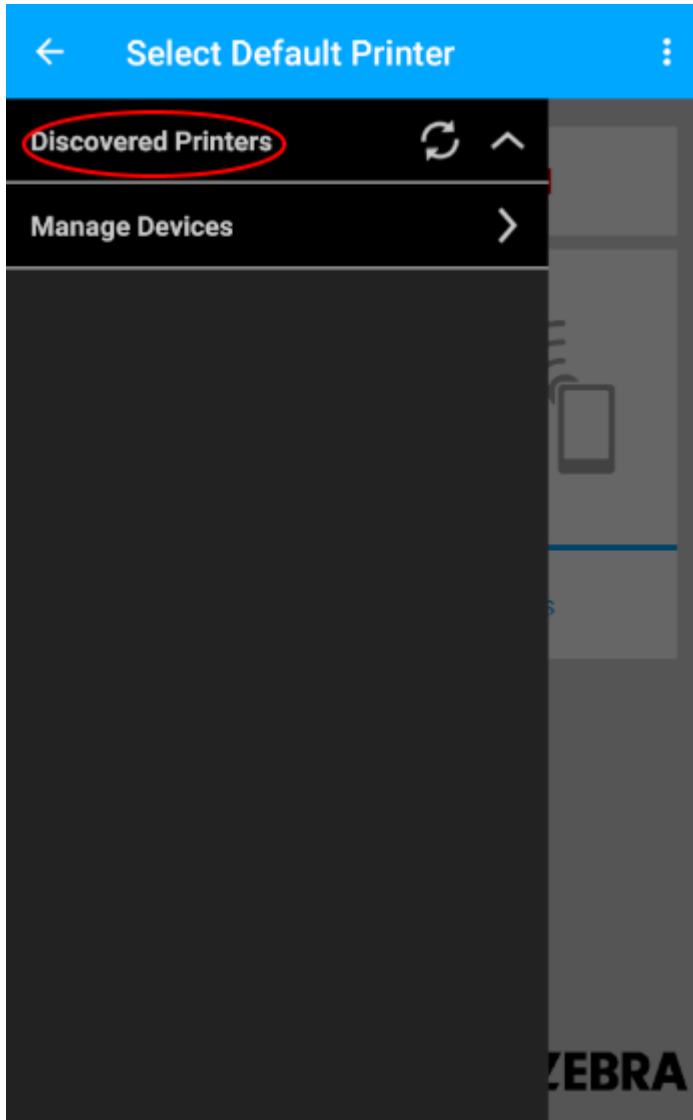
1. Open the app drawer and click on the Browser Print icon. Once Browser Print has been started manually, it will continue to run in the background and automatically start when the device boots.



2. Set a "default printer". Click on the hamburger menu in the upper left corner.

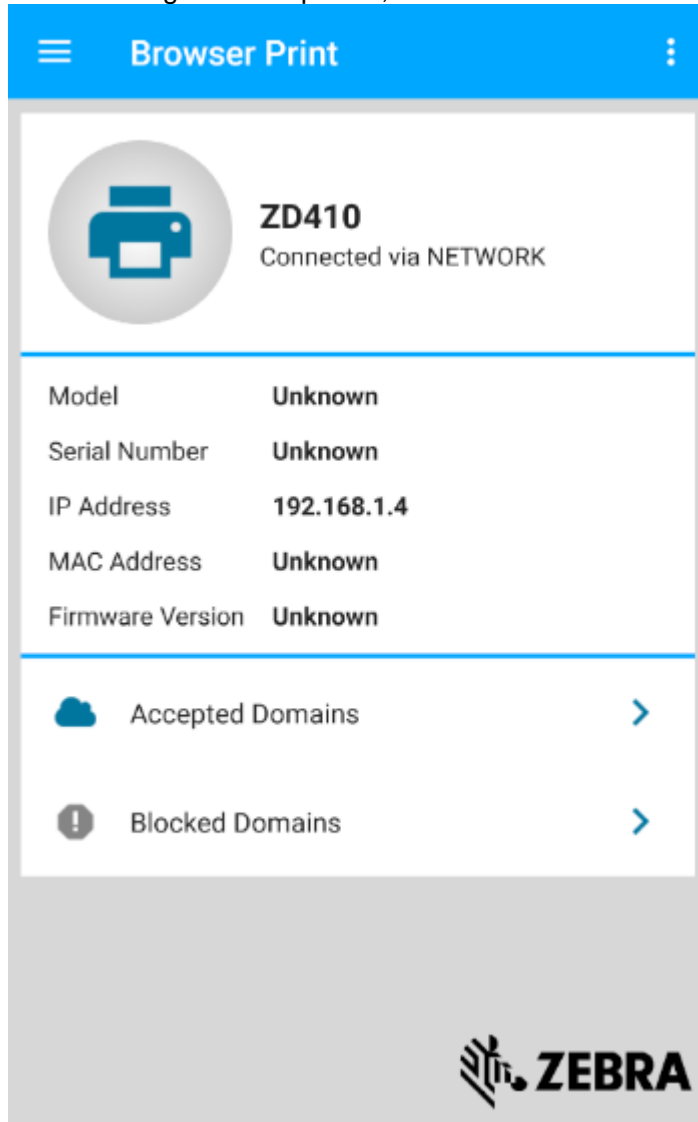


3. Click on "Discover Printers"



4. The "Discover Printers" section should expand with a list of all printers found. Clicking on one of the printers will allow you to set it as the "Default" printer. Websites visited will use the default printer unless otherwise specified. You can also manually add a device that is not being discovered by clicking "Manage Devices".

- a. After selecting a default printer, the main screen contains the following:



- b. Default Device: Lists information about the default device. This is different than the default printer set by the operating system. This can be changed once set via the "Default Printers" list item.
- c. Accepted Hosts: Lists web addresses that the user has allowed access to their devices. These can be removed using this screen.
- d. Blocked Hosts: Lists web addresses that the user has blocked access to their devices. These can be removed using this screen.

6. The settings menu can be reached by clicking on the kabob menu in the top right corner and clicking “Settings”.

Browser Print

- Network Discovery**
Enable searching the local network for devices

- Bluetooth Discovery**
Enable discovering nearby devices over Bluetooth

- Anonymous Error Reporting**
Send anonymous error reports automatically

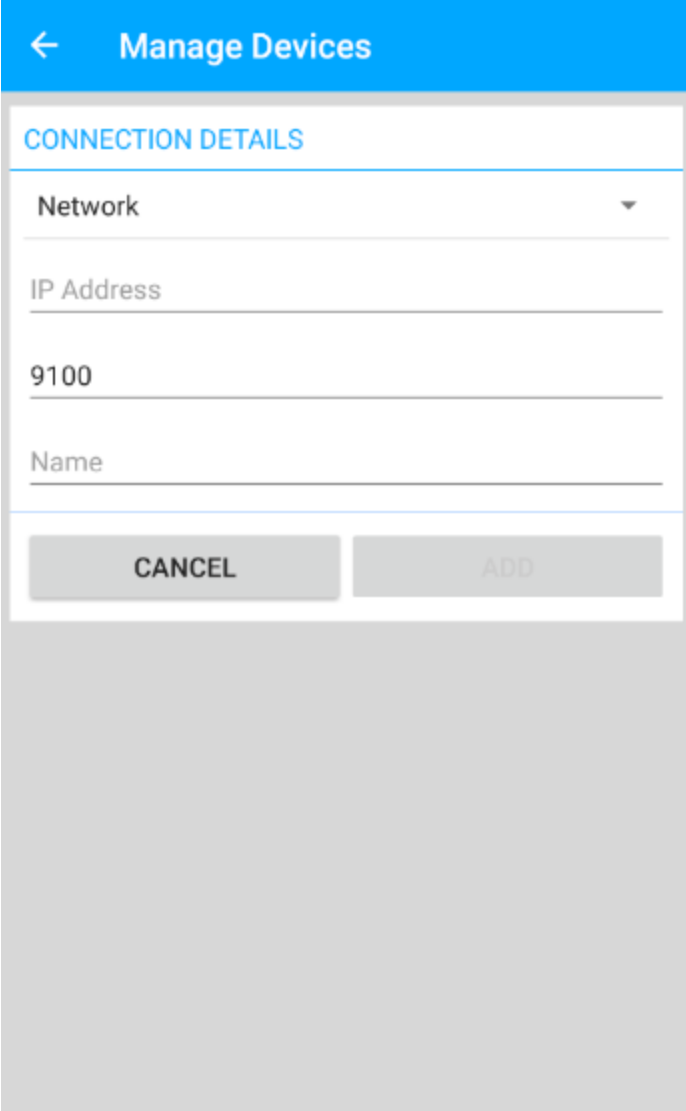
- Default Settings**
Restore the application settings to their default values

- a. Network Discovery: Determines whether the application will attempt to discover printers on the local network
- b. Bluetooth Discovery: Determines whether the application will attempt to discover nearby Bluetooth printers
- c. Anonymous Error Reporting: Determines whether error reports are sent to the developer
- d. Default Settings: Resets all settings to the default values.

8. To manually add a printer, click the “Manage Devices” button in the hamburger menu. A list of already added devices will be shown.



- To add a printer, click the blue “+” icon in the bottom right corner, then complete the form. Click “Add” when done.



The screenshot shows a mobile application interface titled "Manage Devices". At the top, there is a blue header bar with a back arrow and the text "Manage Devices". Below the header is a form titled "CONNECTION DETAILS". The form contains three input fields: "Network" (a dropdown menu), "IP Address" (a text field containing "9100"), and "Name" (an empty text field). At the bottom of the form are two buttons: "CANCEL" and "ADD".

- The device should appear in the “discovered printer” list and should be delivered as a discovered device to web pages.

Using the Sample Page

1. Connect your Zebra printer using one of the following methods and set the [default](#) printer.
 - a. Network Connection by selecting "[Broadcast Search](#)" on the settings screen.
 - b. Bluetooth connection with Bluetooth Discovery enabled.
2. In the sample folder of the JavaScript library, you will find a sample test page and supporting files. These files must be delivered from a web server to function properly, and will not work opening them locally in a web browser. Once delivered from a web server, a page will display that looks like this:

Zebra Browser Print Test Page

This page must be loaded from a web server to function properly.

Selected Device: 50j1 XXXXXXXXXX

Get Application Configuration

Send Config Label

Send ZPL Label

Get Status

Get Local Devices

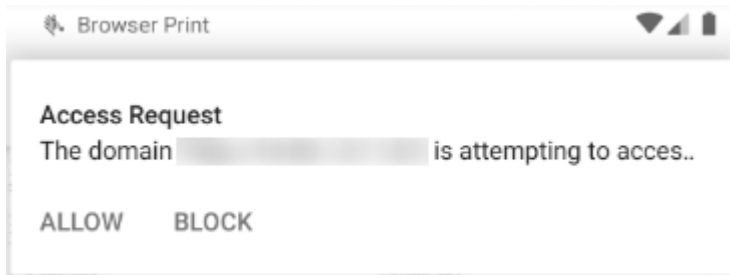
Write

Read

Send BMP

Send JPG

3. The application may ask for permission to allow the website to access your system's printers. Select "Allow" to give it access.



4. The website will then be added to the list of Accepted Hosts in the Browser Print application.
5. If you have selected a default printer in the Browser Print settings, the website will have it listed. If you have not, the printer will be undefined. If the printer [is undefined](#), set a default device in the application and reload the page
6. The demo page supplies a number of buttons that demonstrate basic functionality of the Browser Print application and API. Clicking on "Send Config Label", "Send ZPL Label", "Send Bitmap" and "Send JPG" should result in the selected printer printing a label.

Integration

Zebra's Browser Print is intended to make it easier to print to a device from a web-based application using minimal coding effort.

The Browser Print javascript library, which is an API to help you integrate Browser Print into your website, is available as a separate download. It is recommended that you include this JavaScript class in your web page to facilitate the use of the Browser Print application.

```
<script type="text/javascript" src="js/BrowserPrint-  
[version].min.js"></script>
```

Full API documentation for the Browser Print API is included with the JavaScript library.

Sample Application

A sample application is included with the JavaScript library directory. The sample application must be delivered from web serving software such as Apache, Nginx, or IIS to function properly, and cannot be loaded by the browser as local files.

Incompatibilities

Browser Print runs in the background of a device; however, it cannot run at the same time as certain other pieces of software. Browser Print cannot run when any other program is using the device's 9100 port. These ports are used for RAW printing; that is, sending commands to the printer in a printer language, such as ZPL.

Limitations

Firmware and fonts cannot be loaded with this program.

There is a limitation of 2MB uploading.

Multiple reads by the client may be required to successfully capture all data from the printer.

Appendix – Supported Features

The following is a table of the currently supported features for Zebra’s Browser Print.

Feature	Current Release
OS	Android 7+
Devices	Zebra TC51, Zebra TC52, Zebra TC57, Google Pixel 2 XL, Samsung Galaxy S9
Browsers	Chrome 75+
Printers	ZD410, ZD420, ZD500, ZD500R, ZD620, ZQ610, ZQ520, ZQ620, ZT220, ZT410, GX420d, KR403, QLn220, QLn320, TLP2824+
Print Languages	ZPL II
Connection Types	Network and Bluetooth
File Size Limit	2 MB download to printer
Bi-directional Communications	<p>^H and ~H ZPL commands (except ^HZA), and the following Set/Get/Do (SGD) commands:</p> <p>device.languages (read and write) appl.name (read only) device.friendly_name (read and write) device.reset (write only) file.dir (read and write) file.type (read only but must give an argument) interface.network.active.ip_addr (read and write) media.speed (read and write) odometer.media_marker_count1 (read and write) print.tone (read and write)</p>
Image Printing	Yes (JPG, PNG or Bitmap)

Document Control

Version	Date	Description
1	January, 2020	Initial Release

Change Log

Version	Date	Description
1.3.0	January, 2020	Initial Release



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