

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

INTELLECTUAL TECH LLC,

Plaintiff,

v.

ZEBRA TECHNOLOGIES CORPORATION,

Defendant.

Civil Action No. 6:22-cv-00788

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Intellectual Tech LLC (“Intellectual Tech” or “Plaintiff”) files this Complaint against Defendant Zebra Technologies Corporation (“Zebra” or “Defendant”) for infringement of U.S. Patent No. 7,233,247 (the “247 Patent”), and hereby allege as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.*

**PARTIES**

2. Plaintiff Intellectual Tech LLC is a Texas limited liability company with a place of business located at 4000 Brooks Court, Argyle, Texas 76226.

3. Upon information and belief, Defendant Zebra Technologies Corporation is a corporation having a principal place of business at 3 Overlook Point, Lincolnshire, Illinois 60069. Upon information and belief, Defendant can be served through its registered agent CT Corporation System, 208 South LaSalle St, Suite 814 Chicago, Illinois 60604.

**JURISDICTION AND VENUE**

4. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

5. Defendant is subject to this Court’s specific and general personal jurisdiction due to its substantial business in this forum. For example, upon information and belief, Defendant is subject to the specific personal jurisdiction of this Court because Intellectual Tech’s claims for patent infringement arise from Defendant’s acts of infringement in the State of Texas. These acts of infringement include selling infringing products in the State of Texas and placing infringing products into the stream of commerce through an established distribution channel with full awareness that substantial quantities of the products have been shipped into the State of Texas. Therefore, this Court has personal jurisdiction over Defendant under the Texas long-arm statute, TEX. CIV. PRAC. & REM. CODE § 17.042.

6. Venue is proper in this judicial district under 28 U.S.C. § 1400(b). Defendant has a regular and established place of business in this District at 507 E Howard Lane, Bldg 1 Austin, TX 78753 (<https://www.zebra.com/us/en/about-zebra/contact-zebra/global-locations.html>) and has committed and continues to commit acts of infringement in this District. Defendant’s regular and established place of business in this District is a physical building as shown below. *See In re Cray Inc.*, 871 F.3d 1355, 1360 (Fed. Cir. 2017).



**PATENT-IN-SUIT**

7. Intellectual Tech is the owner and the assignee of U.S. Patent No. 7,233,247, entitled “Method and System for Employing RFID Tags in Automated Applications” and Intellectual Tech holds the exclusive right to license the `247 Patent. Intellectual Tech has ownership of all substantial rights in the `247 Patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement. A true and correct copy of the `247 Patent is attached as Exhibit A and a true and correct copy of the Ex Parte Reexamination Certificate to the `247 Patent is attached as Exhibit B.

8. The `247 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

**STANDING**

9. Intellectual Tech has standing to bring this suit to enforce the '247 Patent. In a related case between Intellectual Tech and Zebra, this Court dismissed the case for lack of constitutional standing without prejudice. *See Intellectual Tech, Inc. v. Zebra Tech. Corp., C.A. No. 6:19-cv-00628, ECF No. 144 (W.D. Tex.)*. While Intellectual Tech believes that decision is incorrect, Intellectual Tech has since taken additional steps to clarify its rights and its ability to bring and maintain this suit. Ex. C (Clarification of Rights Agreement).

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 7,233,247**

10. Intellectual Tech alleges and hereby incorporates by reference every allegation made in the foregoing paragraphs of this Complaint as if each were separately set forth herein.

11. Intellectual Tech asserts that Zebra infringes at least Claims 63, 71, 72, 73, 74, 82, 85, 86, 87, 88, 89, 138, 144, 147, 149, 151, 152, 154, 155, and 158 of the '247 Patent (collectively, the "Exemplar Claims") by making, using, selling, offering to sell, and importing at least Zebra's CC6000, CS60, CS60-HC, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, HS3100/HS2100, iMZ220, iMZ320, L10 (Android), L10 (Windows), L10ax (Windows), M60, MC2200/MC2700, MC3300, MC3300ax, MC3300R, MC3300x, MC3300xR, MC3330xR, MC3390R, MC3390xR, MC9300, Omnii-XT15, QLn220, QLn220 Healthcare, QLn320, QLn420, RFD2000, RFD40, RFD40 (Premium Series), RFD8500, RFD90, RS5000, RS5100, RS6000, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x/TC57x, TC52x-HC, TC52x-HC Series, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, TFF-5110, Workabout Pro-4, WS50, WT6000, WT6300, ZC100, ZC300 Series, ZC350, ZD410, ZD410-

HC, ZD420, ZD420C, ZD420C-HC, ZD420-HC, ZD421 (Healthcare Series), ZD421 Series, ZD500, ZD500R, ZD510-HC, ZD620, ZD620-HC, ZD621 (Healthcare Series), ZD621 Series, ZE511/ZE521, ZE511/ZE521-RFID, ZQ300 Series, ZQ310, ZQ320, ZQ510, ZQ511/ZQ521, ZQ511/ZQ521-RFID, ZQ520, ZQ600, ZQ600-HC, ZQ630-RFID, ZT400 Series, ZT400-RFID Series, ZT510, ZT610, ZT620, ZXP Series 3, and ZXP Series 9 products (collectively, the “Exemplar Products”).

12. Each of the Exemplar Products falls into one or more of the following categories: StageNow Products, DataWedge Products, Sled Products, Tap & Act Products, NFC Pairable Products, Contactless Payment Products, and SDK-Compatible Products (collectively, the “Infringing Product Categories”). Each of the Infringing Product Categories is defined below, and includes specific Exemplar Products, any substantially similar products, and any Zebra products matching the relevant category descriptions. The Exemplar Products and any other Zebra product falling into one of the Infringing Product Categories are collectively referred to herein as the “Accused Products.”

13. Upon information and belief, Zebra has purposefully and voluntarily placed the Accused Products into the stream of commerce with the expectation that these products will be purchased and used by end users in the United States, including end users in this District.

14. Upon information and belief, Zebra provides direct and indirect support concerning the Accused Products to end users, including end users within this District.

15. Intellectual Tech asserts that each Accused Product directly infringes one or more of the Exemplar Claims under 35 U.S.C. § 271(a) either literally or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States the Accused Products including within this District, without the authority of Intellectual Tech.

16. Zebra has been on notice of the `247 Patent since at least October 22, 2019, when Intellectual Tech filed suit on the `247 Patent and asserted the same claims against Zebra. In violation of 35 U.S.C. § 271(b), Zebra has indirectly infringed the `247 Patent by inducing its customers to directly infringe the `247 Patent, both literally and/or under the doctrine of equivalents, at least by providing its customers with instructions on using the Accused Products and by making, using, offering for sale, selling, and/or importing devices in the United States the Accused Products without the authority of Intellectual Tech.

17. Intellectual Tech further asserts that Zebra contributes to at least its customers' infringement of at least one of the Exemplar Claims under 35 U.S.C. § 271(c) by proving the Accused Products to its customers knowing that the Accused Products are combined to directly infringe the `247 Patent either literally or under the doctrine of equivalents.

**A. The StageNow Products**

18. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 71, 72, 73, 82, 86, 87, 138, 144, 147, 149, 151, 154, and 155 of the `247 Patent.

- ***Every Zebra Product that has an NFC reader, Wi-Fi, and includes Zebra's StageNow app.***

19. These products are referenced herein as Zebra's "StageNow Products." A non-exhaustive list of StageNow Products includes Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51/ET56, ET51/ET56-A, L10 (Android), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55,

TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products (the “Exemplar StageNow Products”).

20. Each StageNow Product is an RFID base unit at least because it can use radio to receive, transmit, or relay identifying signals.

21. For example, each Exemplar StageNow Product has an NFC / HF RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from NFC tags and HF tokens.

### **Near Field Communications**

NFC/HF RFID is a short-range wireless connectivity technology standard that enables secure transaction between a reader and a contactless smartcard. The technology is based on ISO/IEC 14443 type A and B (proximity) ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band.

The device supports the following operating modes:

- Reader mode
- Peer-to-Peer communication
- Card Emulation mode.

Using NFC, the device can:

- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth devices such as printers , ring scanners (ex. RS6000), and headsets (ex. HS3100).
- Exchange data with another NFC device.
- Emulate contactless card such as payment,ticket, or SmartPoster.

The device NFC antenna is positioned to read NFC cards from the top of the device while the device is being held.

EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020)  
(available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf))

NFC is a sub-class of Radio Frequency Identification (RFID) technology that is designed for use by devices within close proximity to each other. NFC technology allows devices to establish communication by touching or bringing them into close proximity, usually no more than 7.62 centimeters (3 inches).

ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf))

22. Each StageNow Product has a microcontroller.
23. For example, each Exemplar StageNow Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.
24. Each StageNow Product has a volatile memory.
25. For example, each Exemplar StageNow Product includes both SRAM and DRAM.
26. Each StageNow Product has a non-volatile memory.
27. For example, each Exemplar StageNow Product includes a hard drive or flash memory.
28. Each StageNow Product has an operating system.
29. For example, each Exemplar StageNow Product has the Android Operating System stored in non-volatile memory.
30. Each StageNow Product has a processor.
31. For example, each Exemplar StageNow Product includes a processor that executes its operating system.
32. Each StageNow Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.



33. For example, each exemplar StageNow Product's processor can run the StageNow application. Zebra's StageNow allows creating, managing, sharing and reading staging profiles that can perform OS updates, Wipe Device, Manage Applications, enrolling in an MDM, Managing Device Security including Bluetooth, WWAN, GPS, NFC, File System Controls, Camera Controls, Threat Controls, Settings UI and Application Controls using barcode scanning or NFC tag reading.



## StageNow

### FAST AND EASY STAGING FOR ZEBRA ANDROID MOBILE COMPUTERS

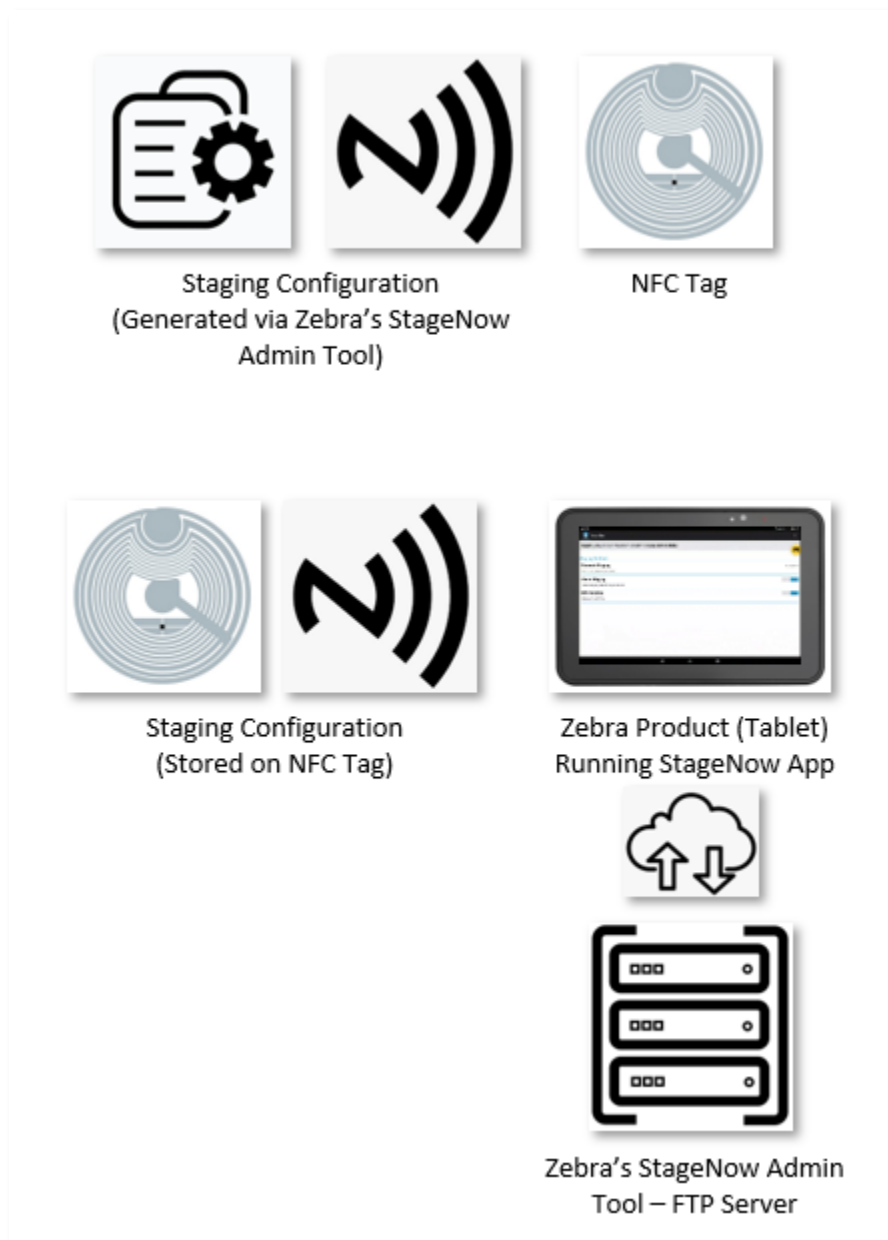
If you need to deploy Zebra Android enterprise mobile devices in your enterprise, the first step is staging — preparing the devices for use. You could use existing IT staff or hire personnel to manually initialize your settings and applications — but not only is this approach costly and time consuming, it is prone to errors which can impact the worker experience, productivity and enterprise security. You could use your centralized Enterprise Mobility Management (EMM) solution — but first you'll need an online connection to the EMM that can add to your costs. In addition, your current EMM may not be capable of executing all of the settings you require — or Zebra's powerful new Restricted Mode, which gives you complete control over the apps that are available on your devices. Zebra Technologies' StageNow solves these challenges, allowing any size organization to easily and remotely stage a handful or hundreds of Android devices with a quick scan of a barcode or tap on an NFC tag. And with StageNow's incredibly easy Wizard-based tool, even complex staging profiles are easy to create.

[https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/solutions-verticals/product/Software/Mobility%20Software/Mobile%20Application%20Utilities/StageNow/specsheets/STAGENOW-Specification-Sheet-0615.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/solutions-verticals/product/Software/Mobility%20Software/Mobile%20Application%20Utilities/StageNow/specsheets/STAGENOW-Specification-Sheet-0615.pdf)

34. A video describing StageNow is available at <https://www.zebra.com/us/en/products/software/mobile-computers/mobile-app-utilities/stagenow.html>. The link additionally provides a summary of what StageNow is used for.

35. When performing NFC staging using the StageNow Client application the device communicates with an NFC tag (the RFID circuit) and uses information from that that to connect with and thereby engage an external server over Wi-Fi in order to download additional updates and information for the device. The device can then disconnect from the server thereby

disengaging it. See <https://www.zebra.com/us/en/products/software/mobile-computers/mobile-app-utilities/stagenow.html>.



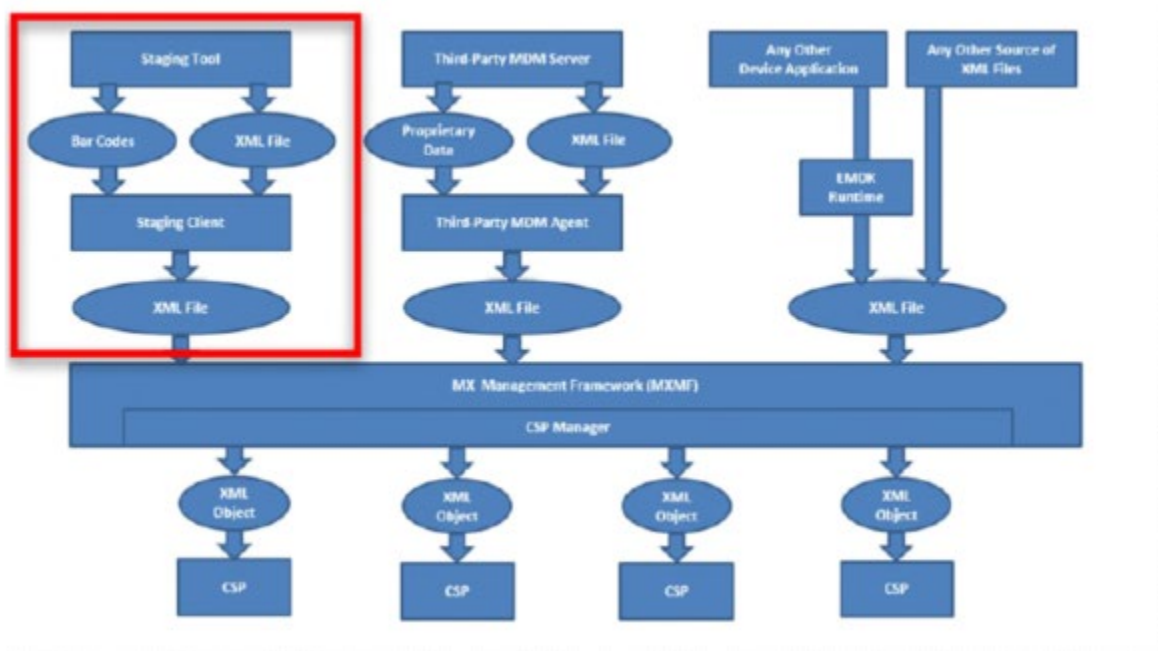
StageNow Overview

36. StageNow is preloaded on all Zebra devices with the Zebra common platform. <https://www.zebra.com/us/en/products/software/mobile-computers/mobile-app-utilities/stagenow.html>. StageNow operates by creating a staging profile using the StageNow

Administrator Tool and then saving that profile to a barcode or NFC tag. The Zebra device then reads the staging profile using either a barcode scanner or NFC reader and processes the staging profile. Once the staging profile is read, the Zebra device can update various settings as described above and also connect to an external staging server to download additional updates.

37. The StageNow Client Application uses Mobility Extensions as its core for configuring a Zebra Android device.

<https://techdocs.zebra.com/mx/overview/#:~:text=The%20MX%20Management%20System%20%28MXMS%29%20is%20an%20XML-based,the%20capabilities%20and%20behaviors%20of%20Zebra%20Android%20devices.>



38. StageNow communicates through Mobility Extensions to a CSP that represents a communication path to the StageNow Administration Tool (red box added for emphasis)

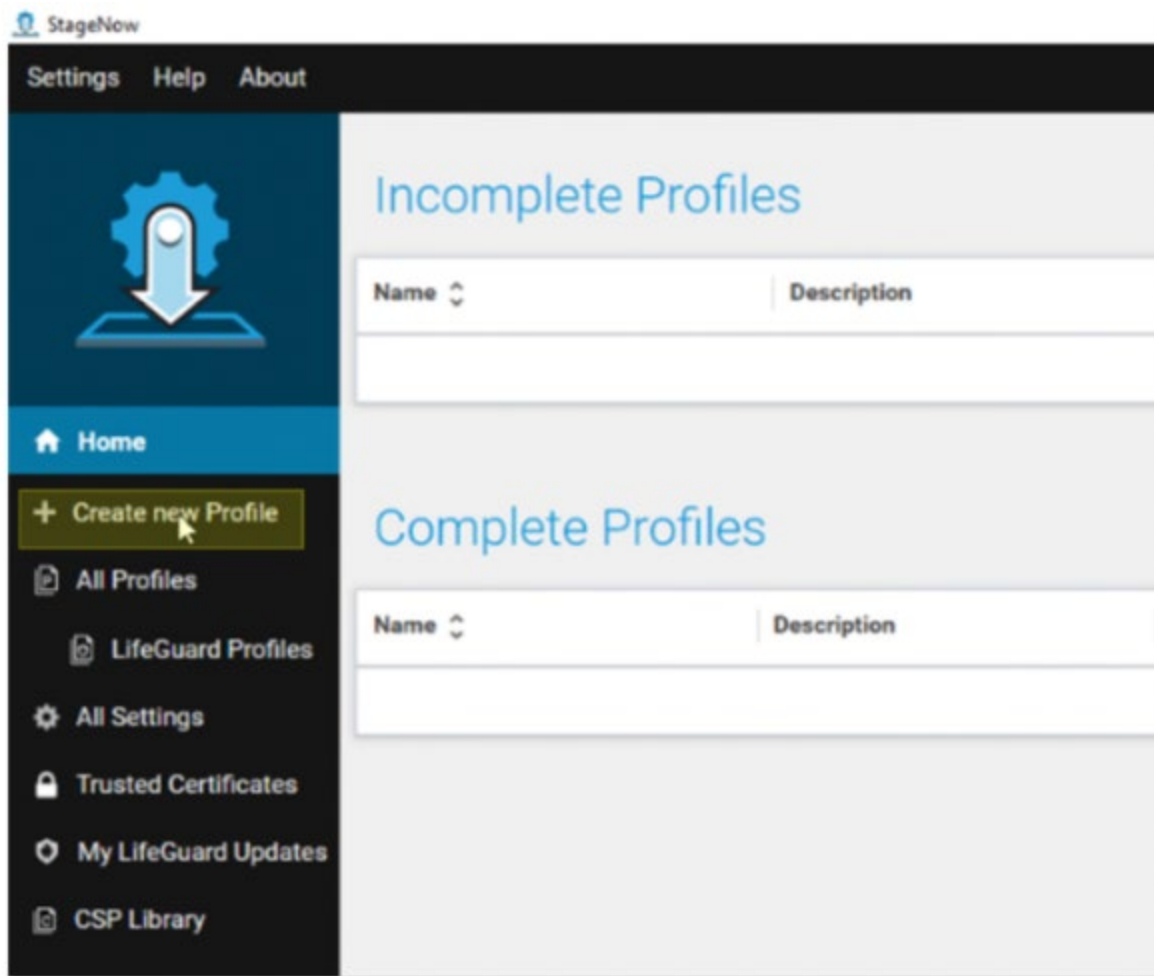
[https://techdocs.zebra.com/mx/overview/#:~:text=The%20MX%20Management%20System%20%28MXMS%29%20is%20an%20XML-](https://techdocs.zebra.com/mx/overview/#:~:text=The%20MX%20Management%20System%20%28MXMS%29%20is%20an%20XML-based,the%20capabilities%20and%20behaviors%20of%20Zebra%20Android%20devices.)

[based,the%20capabilities%20and%20behaviors%20of%20Zebra%20Android%20devices.](https://techdocs.zebra.com/mx/overview/#:~:text=The%20MX%20Management%20System%20%28MXMS%29%20is%20an%20XML-based,the%20capabilities%20and%20behaviors%20of%20Zebra%20Android%20devices.) The

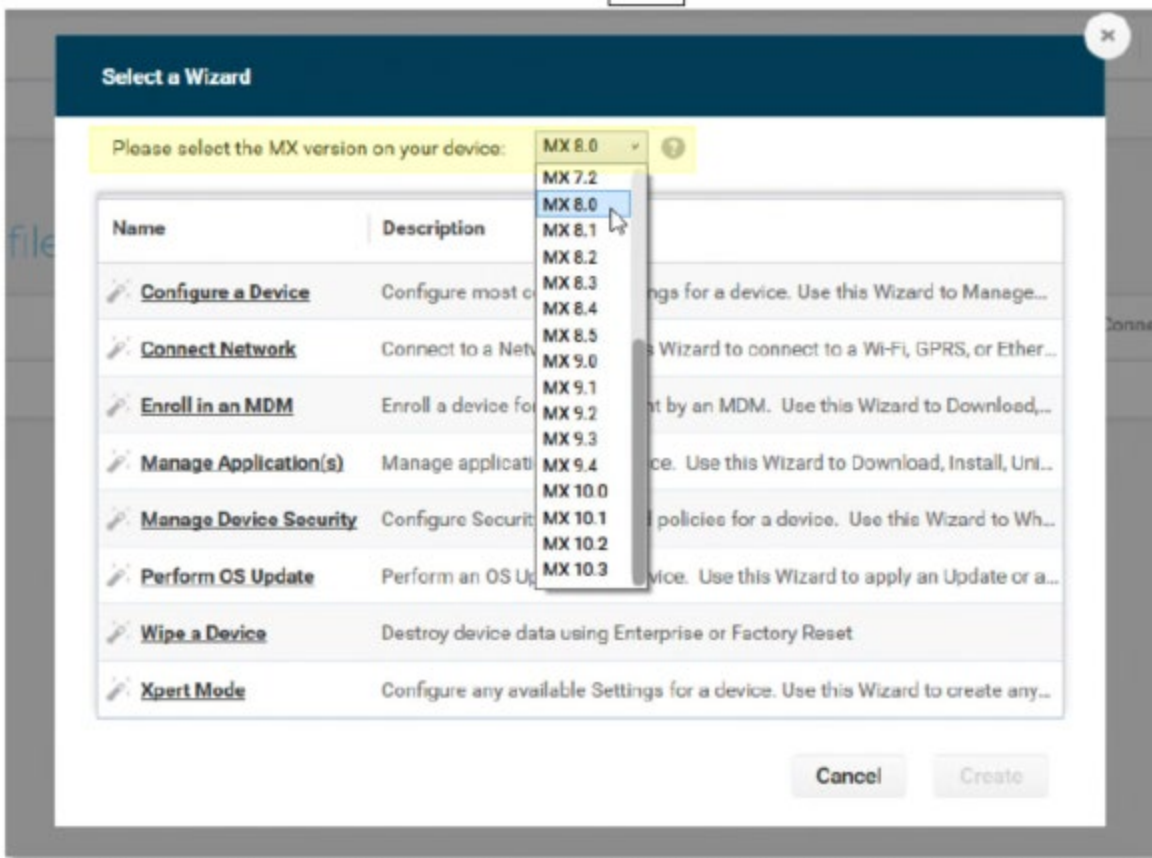
left side of the graphic shows that StageNow on an Android device relies on the MX framework and various Configuration Service Providers (CSPs) to configure the device, including for downloading any additional data required. For example, a particular CSP associated with file transferring can be used to load new applications from the StageNow Administration Tool to the Zebra Android device.

39. The staging profile is generated using the StageNow administrator tool and can be written to either an NFC tag or a barcode. <https://techdocs.zebra.com/stagenow/5-3/gettingstarted/>. The staging profile can contain lots of data, such as a staging server to connect to, Wi-Fi networks and passwords to access, and other configuration information. Below is a walkthrough of the creation of an exemplar staging profile.

40. As illustrated below, a staging profile can be built using Zebra's StageNow administrator tool. Zebra provides extension instructions on building staging profiles at <https://techdocs.zebra.com/stagenow/5-5/about/>; <https://techdocs.zebra.com/stagenow/5-5/gettingstarted/>; <https://techdocs.zebra.com/stagenow/5-5/stagingprofiles/>.



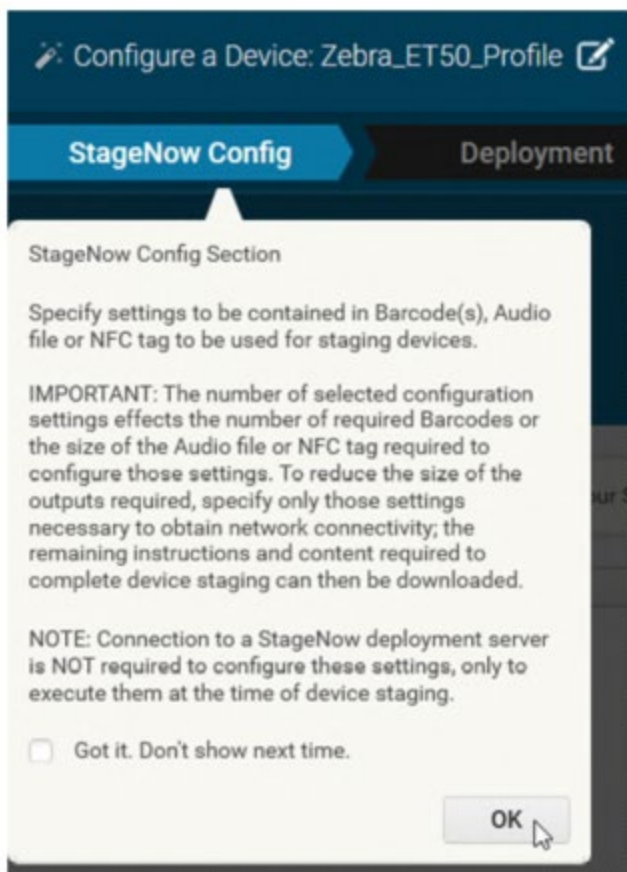
41. The user is first prompted to select the appropriate MX version for the device they intend to stage. The MX framework provides the requisite interfaces for actually configuring the device.



42. Next, the user names the profile.



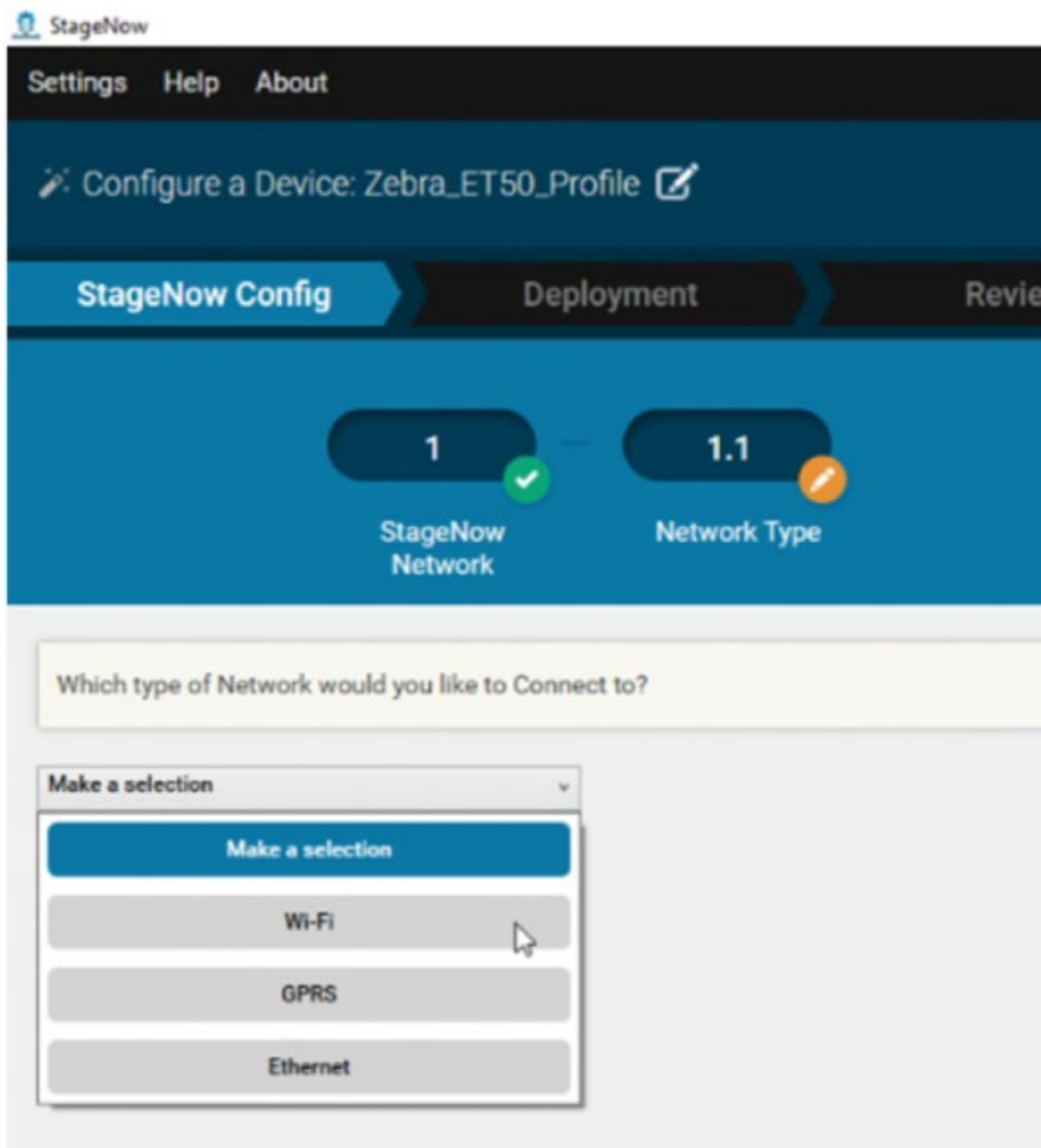
43. The StageNow Administrator Tool then explains that only a limited number of configuration settings can be stored in a barcode or NFC tag and that depends on the size of the NFC tag, for example. It also explains that additional staging information can be retrieved off the network.



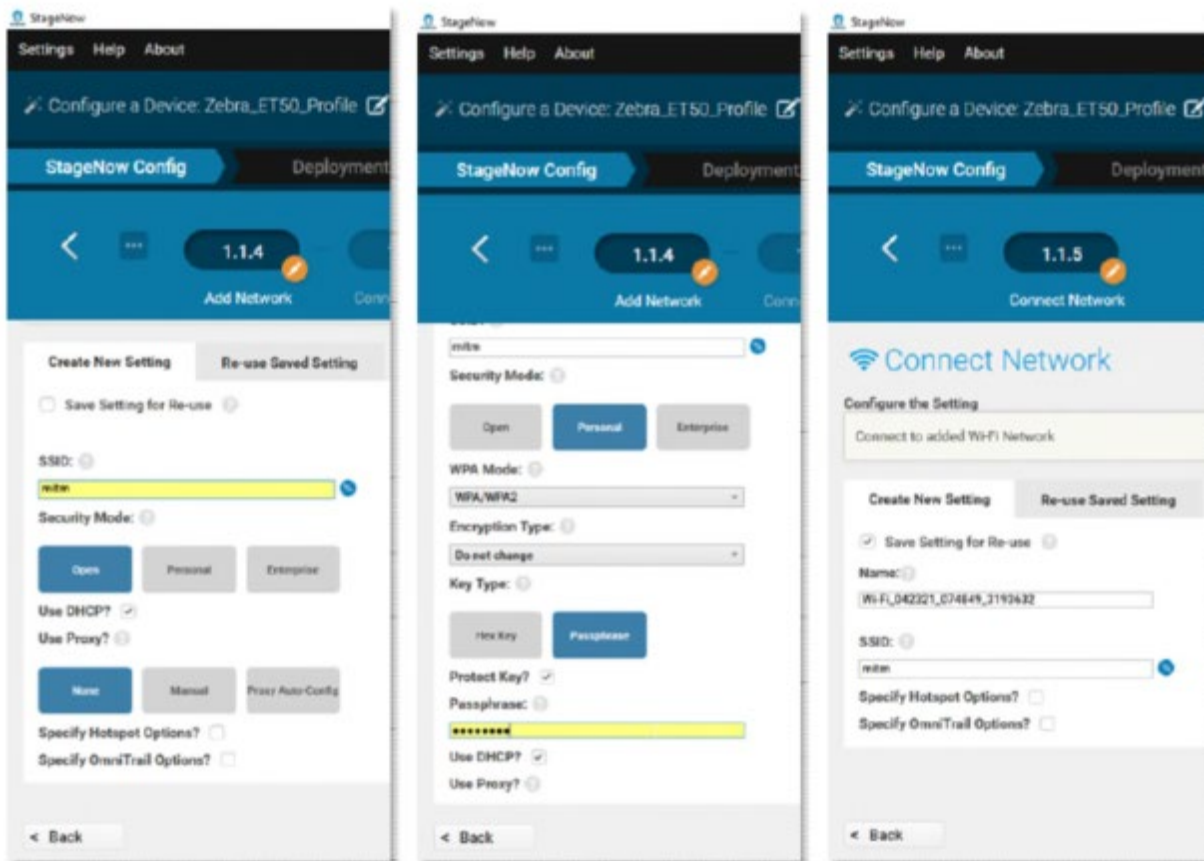
44. The StageNow administrator tool walks the user through a variety of configuration options. The following illustrates a sample of available options; however, many more configuration options exist. Zebra provides instructions on using these various configuration options as shown below:

- Configure a Device (<https://techdocs.zebra.com/stagenow/5-5/Profiles/configdevice/>)
- Connect Network (<https://techdocs.zebra.com/stagenow/5-5/Profiles/ConnectNetwork/>)
- Enroll in an MDM (<https://techdocs.zebra.com/stagenow/5-5/Profiles/enrollmdm/>)
- Manage Applications (<https://techdocs.zebra.com/stagenow/5-5/Profiles/manageapps/>)
- Manage Device Security (<https://techdocs.zebra.com/stagenow/5-5/Profiles/managesecurity/>)
- Perform OS Update (<https://techdocs.zebra.com/stagenow/5-5/Profiles/osupdate/>)
- Wipe a Device (<https://techdocs.zebra.com/stagenow/5-5/Profiles/wipedevice/>)
- Xpert Mode (<https://techdocs.zebra.com/stagenow/5-5/Profiles/xpertmode/>)

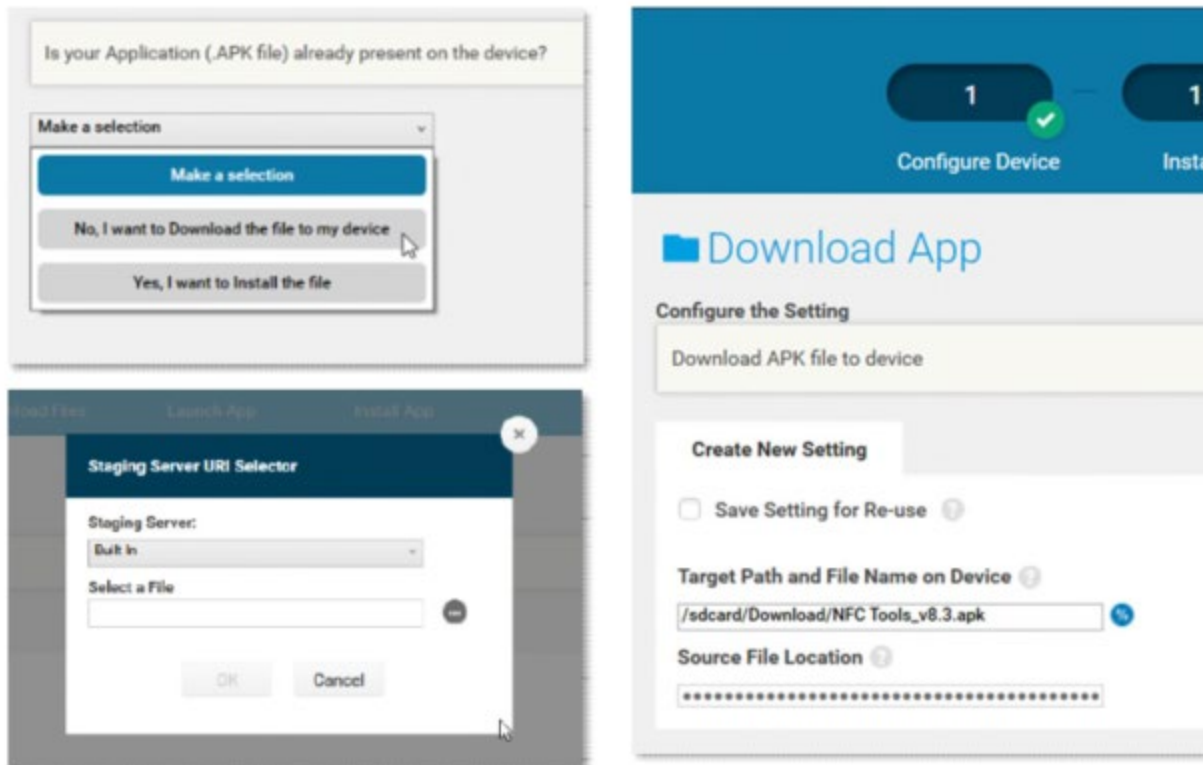
45. For example, a staging profile can include providing a device with network connection and authorization information, as well as instructions to connect to specified networks during staging and afterwards.



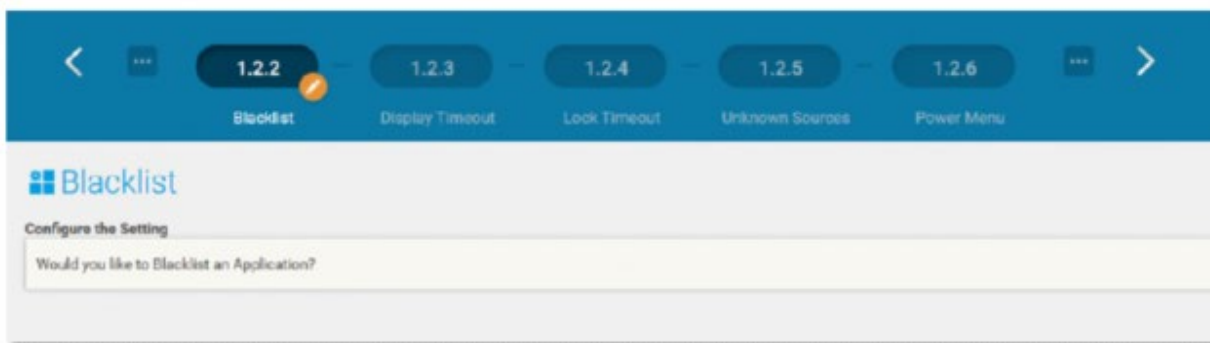


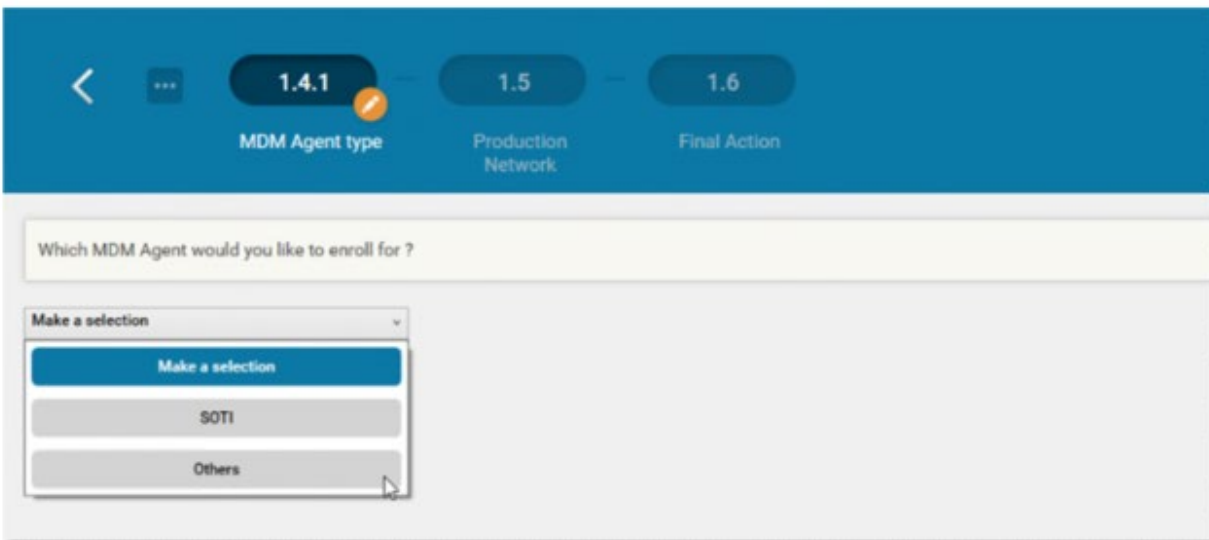
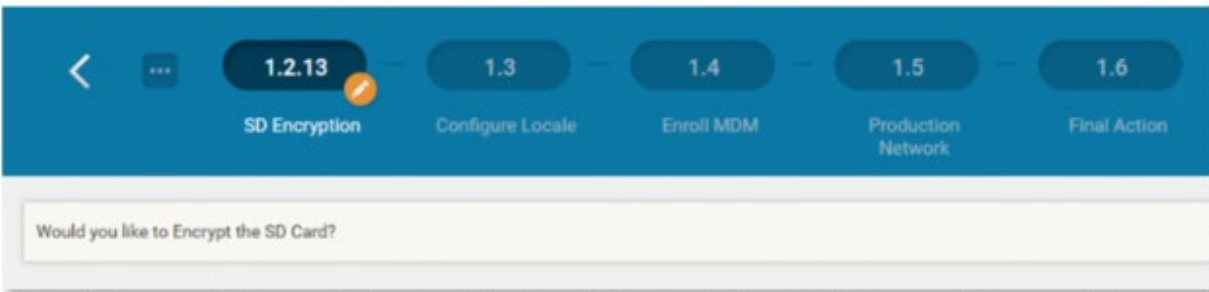
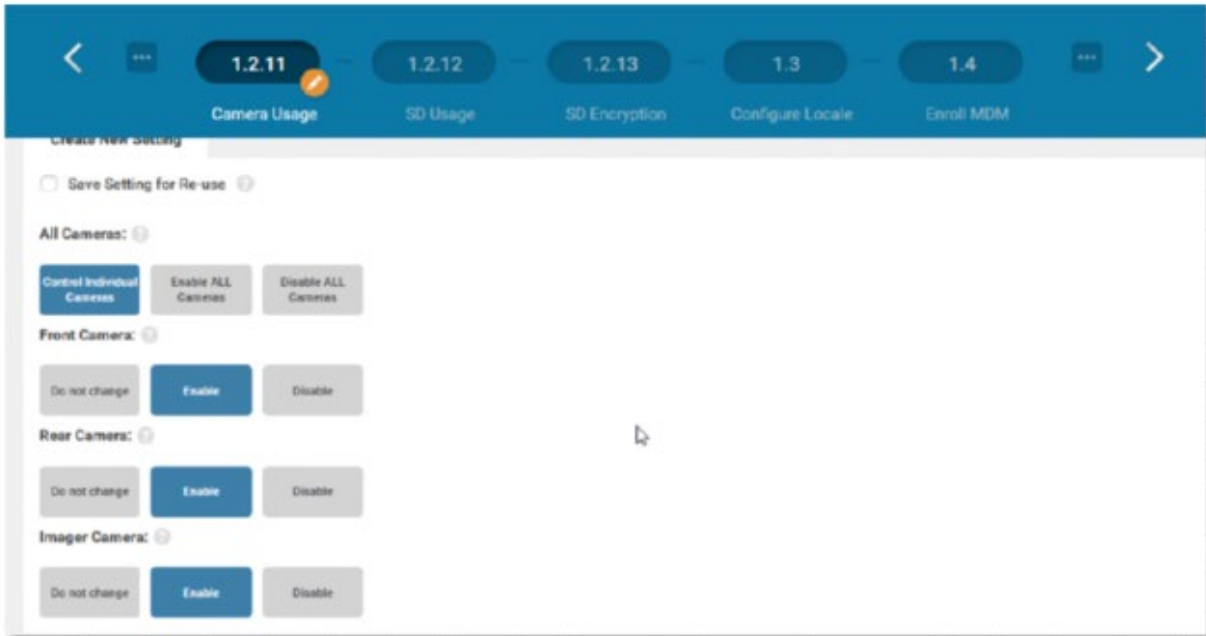


46. A staging profile can also include instructions for downloading and installing apps to the device as shown below:

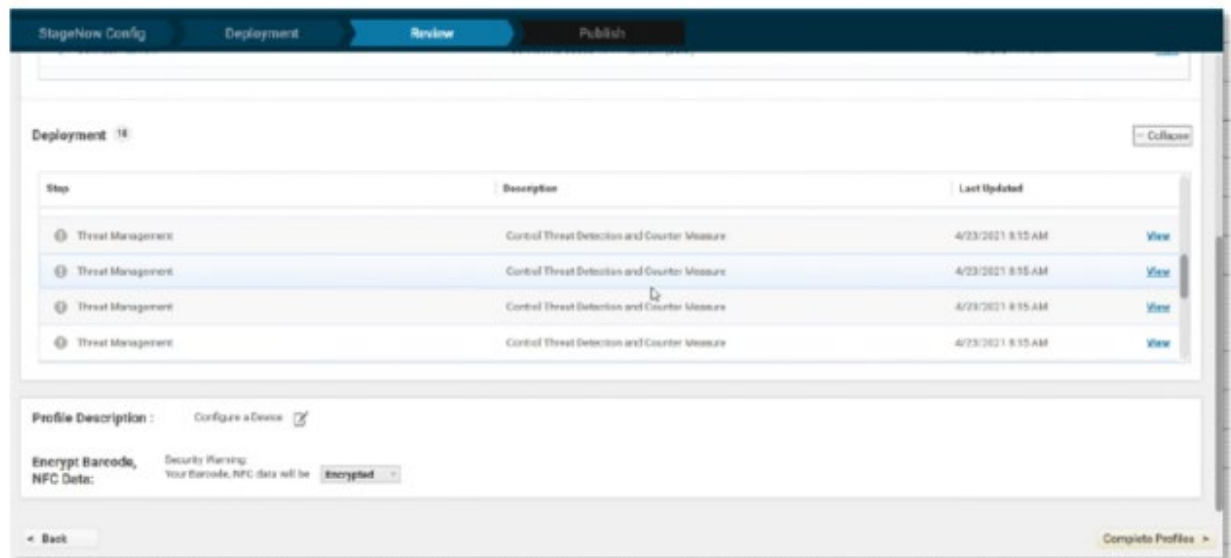
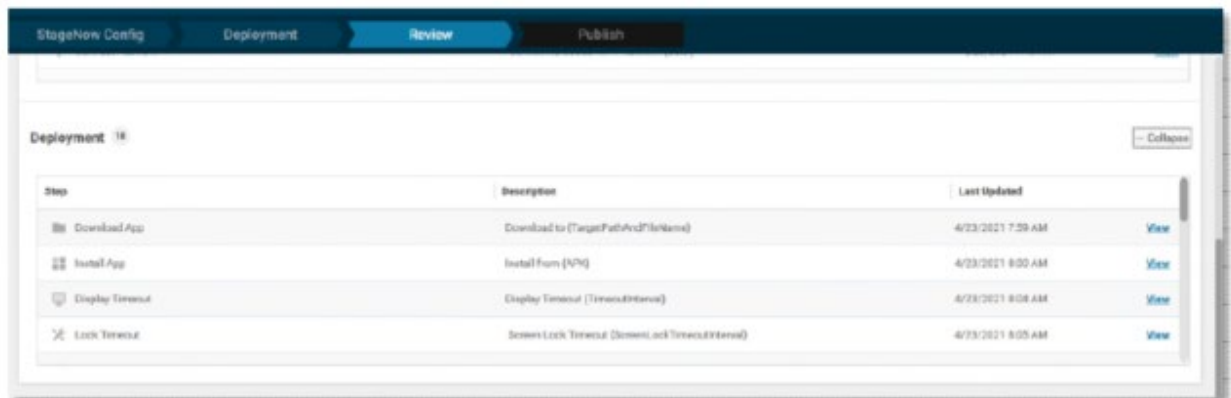
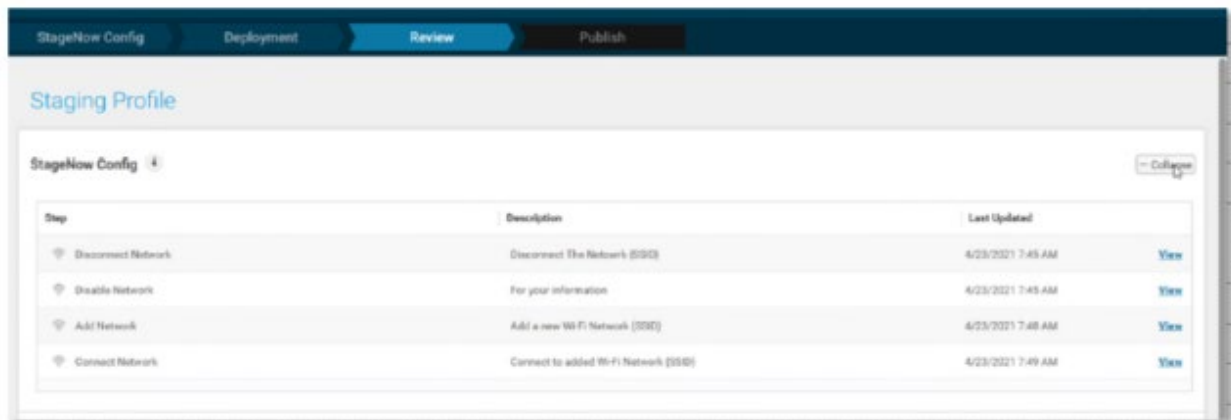


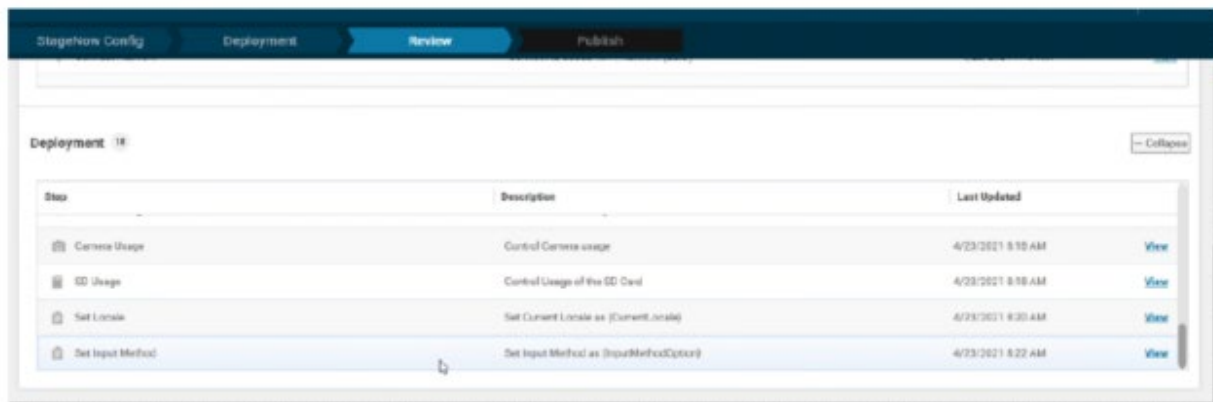
47. The profile can include many other options, including security options and mobile device management options related to the device’s hardware and software. Such examples include blacklisting applications, encrypting the device’s SD card, controlling access to the device’s cameras, and enrolling the device in mobile device management.



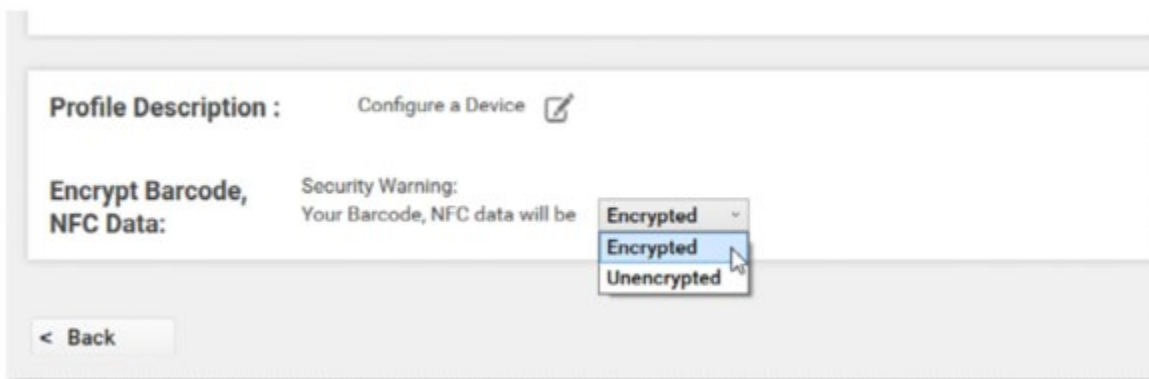


48. Once the user completes the profile, they can review the profile before deployment.





49. Once the staging profile is built, the next step is to create a binary file that contains the profile that can be written to an NFC tag. Of note, the StageNow Administrator tool allows for the creation of both encrypted and unencrypted staging data:



50. Once finalized, a binary file representing the profile is generated:



51. Once a staging profile binary is created, the next step is to write the .bin file created by the StageNow administrator tool to an NFC tag so the target device can read the staging profile and the StageNow Client application can perform the staging operations. The staging profile binary can be written to an NFC tag using a variety of methods. For example, the binary file can be written to the tag using Zebra's StageNow NFC Writer Utility, as shown below:



52. Additionally, many alternatives exist for writing the staging data to the tag. For example, Zebra provides its customers with instructions on how to write NFC tags using the third-party NFC Tools app in the context of creating pairing tags. *See* <https://developer.zebra.com/blog/creating-android-nfc-pairing-tags-bluetooth-devices>. The same NFC Tools can be used to write the staging profile binary to an NFC tag.

53. The StageNow Administrator Tool includes a built-in staging server for hosting applications for installation, which are downloaded per instructions provided in the staging profile.



54. Each StageNow Product has multiple antennas.

55. For example, each Exemplar StageNow Product has an NFC antenna for communicating with an NFC tag as well as a Wi-Fi antenna supporting Wi-Fi connectivity.

56. Each StageNow Product has RF circuitry.

57. For example, each Exemplar StageNow Product has RF circuitry that implements NFC and Wi-Fi.

58. Each StageNow Product has at least one rechargeable battery that powers an integrated circuit.

59. For example, each Exemplar StageNow Product has at least one rechargeable battery that powers an integrated circuit.

60. Each StageNow Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

61. For example, each Exemplar StageNow Product can communicate using at least NFC (high-frequency RFID) and wireless (Wi-Fi).

62. Each StageNow Product can communicate with at least two security devices using a wireless protocol.

63. For example, each Exemplar StageNow Product can communicate with an NFC tag containing a StageNow configuration as well as a StageNow server via Wi-Fi. The NFC tag acts as a security device at least because it can store information like Wi-Fi passwords and the StageNow server is a security device at least because it can configure each Exemplar StageNow Product's security settings.

64. Each StageNow Product can store information related to authorization in the internal memory.

65. For example, each Exemplar StageNow Product can read Wi-Fi access authorization information from a staging configuration stored on an NFC tag and store that authorization information in internal memory.



66. Each StageNow Product can be dynamically updated through a computer network.

67. For example, a StageNow staging server can dynamically update each Exemplar StageNow Product via a computer network.

68. Each StageNow Product can be configured to be monitored by one or more monitoring systems over the Internet.

69. For example, StageNow can configure each Exemplar StageNow Product to be monitored using mobile device management over the Internet.

70. Each StageNow Product has a shockproof housing.

71. For example, each Exemplar StageNow Product is contained in a ruggedized housing subjected to drop tests.

72. Certain StageNow Products provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

73. For example, all StageNow Products that include Push-to-Talk Express (“PTTE”) can provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

74. For example, at least Zebra’s CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, L10 (Android), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x/TC57x, TC52x-HC, TC52x-HC Series, TC53/TC58, TC5X Series, TC70, TC72/TC77, TC75, TC8300, WS50, WT6000, and WT6300 products can use PTTE.

75. Certain StageNow Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or High Frequency RFID.

76. For example, every StageNow Product that is also a Tap & Act Product (discussed below) can communicate using Bluetooth, wireless (Wi-Fi), and High Frequency RFID (NFC).

77. To the extent the StageNow Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents. By way of example only, to the extent NFC is found to not literally be RFID, the two would be equivalent under the doctrine of equivalents.

78. For example, NFC performs substantially the same function, in substantially the same way, to achieve the same result as HF RFID. The purpose of HF RFID is to store information on HF RFID tags that can be read wirelessly by an HF RFID reader. Similarly, one purpose of NFC is to store information on an NFC tag that can be read wirelessly. Both HF RFID and NFC accomplish this function substantially the same way—by transmitting information via transferred energy in radio waves at 13.56 MHz—and achieve the same result—transmission of the information.

79. As another example, insubstantial differences exist between NFC and HF RFID. While NFC provides more functionality than HF RFID, it provides all of the functionality of HF RFID. Evidence that the differences between NFC and HF RFID as used by Zebra are insubstantial include Zebra's use of the terms in an almost interchangeable manner in its own documentation as shown above. *See, e.g.,* EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at

[https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf)); ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf)).

80. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the StageNow Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by providing its customers with instructions on how to perform NFC Staging. Zebra’s instructions for performing NFC staging. *See, e.g.,* <https://techdocs.zebra.com/stagenow/5-3/gettingstarted/>.

81. NFC Staging in the StageNow application, when used with a StageNow Product, has no substantial non-infringing use.

82. Zebra has known that the above actions constitute infringement of the `247 Patent based on at least the filing of the complaint in *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions, supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.

**B. The DataWedge Products**

83. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 71, 72, 73, 82, 87, 149, 154 and 155 of the `247 Patent.

- ***Every Zebra Product that has an RFID reader and includes the DataWedge app.***

84. These products are referenced herein as Zebra’s “DataWedge Products.” A non-exhaustive list of DataWedge Products includes Zebra’s MC3300R, MC3300xR, MC3330xR, MC3390R, and MC3390xR products (the “Exemplar DataWedge Products”).

85. Each DataWedge Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

86. For example, each Exemplar DataWedge Product has an RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from RFID tags.

87. Each DataWedge Product has a microcontroller.

88. For example, each Exemplar DataWedge Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.

89. Each DataWedge Product has a volatile memory.

90. For example, each Exemplar DataWedge Product includes both SRAM and DRAM.

91. Each DataWedge Product has a non-volatile memory.

92. For example, each Exemplar DataWedge Product includes a hard drive or flash memory.

93. Each DataWedge Product has an operating system.

94. For example, each Exemplar DataWedge Product has either the Android or Windows Operating System stored in non-volatile memory.

95. Each DataWedge Product has a processor.

96. For example, each Exemplar DataWedge Product includes a processor that executes its operating system.

97. Each DataWedge Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

98. Zebra's DataWedge allows any Zebra Android Device to capture data using a number of input plugins, manipulate that data, and then output the manipulated data using a number of output plugins. DataWedge is available out-of-the-box with every Zebra Android device.

## Overview

Zebra DataWedge is an application service that serves as a wedge between data capture and applications. It enables any application on the device to capture data from multiple input sources (such as barcode scanner, MSR, RFID, voice, and serial port) and format the data as needed using simple options or custom complex rules. DataWedge functionality is based on profiles - the foreground activity determines the set of configurations to apply from the profile. Profiles are configured manually or programmatically using Android intent APIs, with the capability for mass deployment. DataWedge is available out-of-the-box with every Zebra Android device.

<https://techdocs.zebra.com/datawedge/11-1/guide/about/>

99. For example, each Exemplar DataWedge Product's processor can run the DataWedge application. When performing an RFID tag read the device can use the DataWedge RFID Input Plugin to communicate with an RFID tag and then take the information, transform it, and use DataWedge's IP Output Plugin to engage an external server by connecting to it and sending the data and then disengage that server by disconnecting from it. *See*

<https://techdocs.zebra.com/datawedge/7-3/guide/input/rfid/>;

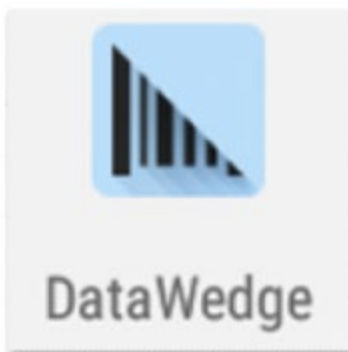
<https://techdocs.zebra.com/datawedge/6-3/guide/output/ip/>.



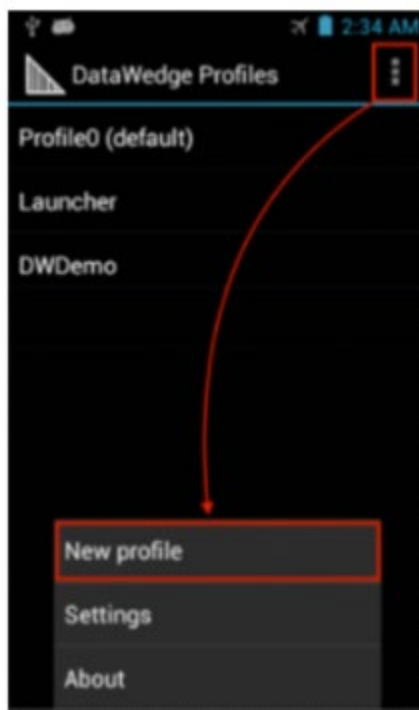
DataWedge Overview

100. The RFID input plugin and an IP Output plugin allow a DataWedge Product having internet connectivity to read data from an RFID tag, manipulate that data, establish a connection with an external device using a TCP or UDP IP connection, and send data to the external device.

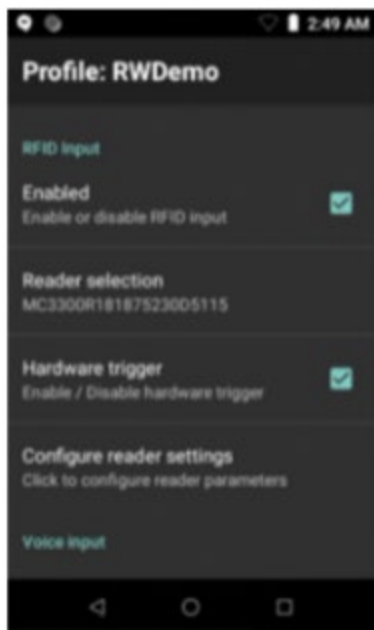
101. To configure DataWedge to send RFID tag information from a Zebra device, Zebra uses configurable “profiles,” which can be configured upon opening the DataWedge application by clicking on its icon from within the Android OS.



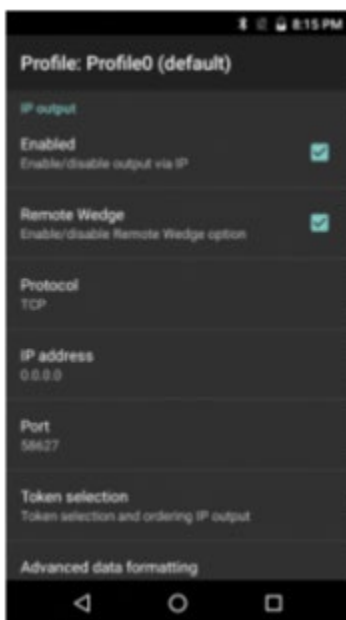
102. To create a profile, the menu button at the top right of the screen is first pressed, followed by pressing the New Profile button within the menu.



103. After the profile has been created the RFID Input plugin can be enabled.



104. Finally, the IP Output plugin can be enabled.



105. Once the above steps have been carried out, the device will be configured to read RFID tags and have the associated information sent wirelessly to an external device.



106. Further, Zebra contributes and/or induces its customers to infringe at least by providing its customer with instructions on how to use DataWedge. *See, e.g.*,

<https://www.zebra.com/us/en/products/software/mobile-computers/datawedge.html>.

107. Each DataWedge Product has multiple antennas.

108. For example, each Exemplar DataWedge Product has an NFC antenna for communicating with an NFC tag as well as a Wi-Fi antenna supporting Wi-Fi connectivity.

109. Each DataWedge Product has RF circuitry.

110. For example, each Exemplar DataWedge Product has RF circuitry that implements NFC and Wi-Fi.

111. Each DataWedge Product has at least one rechargeable battery that powers an integrated circuit.

112. For example, each Exemplar DataWedge Product has at least one rechargeable battery that powers an integrated circuit.

113. Each DataWedge Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

114. For example, each Exemplar DataWedge Product can communicate using at least Bluetooth and wireless (Wi-Fi).

115. Each DataWedge Product can be configured to be monitored by one or more monitoring systems over the Internet.

116. For example, StageNow can configure each Exemplar DataWedge Product to be monitored using mobile device management over the Internet.

117. Each DataWedge Product has a shockproof housing.

118. For example, each Exemplar DataWedge Product is contained in a ruggedized housing subjected to drop tests.

119. Certain DataWedge Products provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

120. For example, all DataWedge Products that include Push-to-Talk Express (“PTTE”) can provide notification of operation of the system is through Voice Over Internet Protocol (VOIP). These devices include, for example, the MC3300xR, MC3330xR, and MC3390xR.

121. Certain StageNow Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or High Frequency RFID.

122. For example, every DataWedge Product that is also a Tap & Act Product (discussed below) can communicate using Bluetooth, wireless (Wi-Fi) and High Frequency RFID (NFC). These devices include, for example, the MC3330xR and MC3390xR.

123. To the extent the DataWedge Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents.

124. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the DataWedge Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by providing its customers with instructions on how to use DataWedge in an infringing manner. *See, e.g.*, <https://techdocs.zebra.com/datawedge/11-1/guide/about/> (identifying the RFID Input and IP Output plugins).

125. When the RFID Input plugin and IP Output plugin are used in combination in the manner described above, the DataWedge in combination with the DataWedge products have no substantial non-infringing use.

126. Zebra has known that the above actions constitute infringement of the '247 Patent based on at least the filing of the complaint in *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions, supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.

### **C. The Sled Products**

127. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 72, 73, 82, 87, 149, 151, 154, and 155 of the '247 Patent.

- ***Every Zebra Product that includes an RFID reader and is capable of connecting to an external device to offload tag data as it is read.***

128. These products are referenced herein as Zebra's "Sled Products." A non-exhaustive list of Sled Products includes Zebra's RFD40, RFD40 (Premium Series), RFD90, RFD2000, and RFD8500 products (the "Exemplar Sled Products").

129. Each Sled Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

130. For example, each Exemplar Sled Product has an RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from RFID tags.

131. Each Sled Product has a microcontroller.

132. For example, each Exemplar Sled Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.

133. Each Sled Product has a volatile memory.

134. For example, each Exemplar Sled Product includes both SRAM and DRAM.

135. Each Sled Product has a non-volatile memory.

136. For example, each Exemplar Sled Product includes a hard drive or flash memory.

137. Each Sled Product has an operating system.

138. For example, each Exemplar Sled Product stores its operating system in non-volatile memory.

139. Each Sled Product has a processor.

140. For example, each Exemplar Sled Product includes a processor that executes its operating system.

141. Each Sled Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

142. For example, the RFD8500 can connect to any mobile device using Bluetooth, such as a Zebra EC 55. Then the RFD8500 can read RFID tags and communicate those reads directly to the connected mobile device via Bluetooth.

## **URNS ALMOST ANY MOBILE COMPUTER INTO A HANDHELD RFID READER**

Add high-performance next generation RFID and 1D/2D barcode scanning to the mobile devices of today and tomorrow — simply, easily and cost-effectively. Just pair the Bluetooth-enabled RFD8500 with a compatible Zebra or third-party mobile device and you're ready to go. You can attach the mobile device to the RFD8500 sled for a complete one-piece solution — or workers can put the mobile device in a pocket and use the RFD8500 in standalone mode.

<https://www.zebra.com/us/en/products/rfid/rfid-handhelds/rfd8500.html>.

With the RFD8500, you can empower select Zebra and compatible third-party mobile devices, tablets and smart phones with enterprise-class UHF RFID and 1D/2D barcode scanning technology, whenever and wherever you need it — simply, easily and cost-effectively. Pair the Bluetooth®-enabled sled with your mobile device and attach the mobile device to the RFD8500 for a single-handed RFID reader solution. Or put the mobile device in a pocket or holster and use the RFD8500 in standalone mode. With support for Android™, iOS®, and Windows®, you get real investment protection. When it comes to performance, whether your workers are capturing RFID tags or barcodes, the RFD8500 is unparalleled. Workers can capture tags and barcodes faster and with ease, improving productivity, operational efficiency and customer service.

### **Flexible connectivity options: Bluetooth or Batch Mode**

Enable a real-time wireless connection to your mobile or backend systems via Bluetooth 2.1 or later. If a wireless connection is not available, batch mode enables the collection of up to 500 barcodes and/or 40,000 RFID tags. Just sync to upload the data from the RFD8500 to the host device at any time.

<https://www.zebra.com/us/en/products/spec-sheets/rfid/rfid-handhelds/rfd8500.html>.

143. Similarly, the RFD40 Premium and Premium Plus meet this limitation in the same manner.

### **FASTER. SMARTER. FUTURE-PROOF.**

Gain the edge and efficiency you need with the RFD40 UHF RFID Sleds. Decrease time spent on cycle-counting with an industry-best 1300+ tag reads per second, improved ergonomics and increased battery capacity. Adapt to new and emerging technologies with this state-of-the-art sled that connects to current and future Zebra mobile computers through eConnex™ direct connection or wirelessly with Bluetooth® 5.3\* capability. Industry-first Wi-Fi 6 enables easy over-the-air (OTA) device management.\*

\* Premium and Premium Plus models only. Some features available in a future release. Contact your Zebra Partner or sales representative for more information.

<https://www.zebra.com/us/en/products/rfid/rfid-handhelds/rfd40.html>.

## RFD40 Premium/Premium Plus Sleds



Faster. Smarter. Future-proof.

Your business is being challenged to work faster and more efficiently than ever before. Gain the edge and efficiency you need with the RFD40 UHF RFID Premium and Premium Plus Sled. Connect to current and future Zebra mobile computers directly through eConnex™ adaptors, or wirelessly with Bluetooth® 5.3 capability. Industry-first Wi-Fi 6 enables easy over-the-air (OTA) device management.\* Decrease cycle-counting time with an industry-best 1,300+ tag reads per second, optimized read range, tri-function programmable trigger and increased battery capacity, along with the durable drop specs, optimal battery performance and superior ergonomic design you expect from Zebra.

<https://www.zebra.com/us/en/products/spec-sheets/rfid/rfid-handhelds/rfd40-premium-series.html>.

144. As another example, the RFID40 is also configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit. Instead of using Bluetooth, however, it uses eConnex or USB to engage the mobile device and send it data. *See*

<https://www.zebra.com/us/en/products/spec-sheets/rfid/rfid-handhelds/rfd40.html>.

145. Each Sled Product has one or more antennas.

146. For example, each Exemplar Sled Product has an RFID antenna for communicating with an RFID tag. Further, the RFD8500, for example, has a Bluetooth antenna to support Bluetooth connectivity. The RFD40 (Premium Series) and RFD90, for example, has additional Bluetooth, Wi-Fi, and NFC antennas.

147. Each Sled Product has RF circuitry.

148. For example, each Exemplar Sled Product has RF circuitry in its RFID reader.

149. Each Sled Product has at least one rechargeable battery that powers an integrated circuit.

150. For example, each Exemplar Sled Product has at least one rechargeable battery that powers an integrated circuit.

151. Certain Sled Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

152. For example, the RFD8500 can communicate using Bluetooth and USB. As another example, Zebra's RFD40 (Premium Series) and RFD90 products can communicate using Bluetooth, wireless (Wi-Fi), USB, and high-frequency RFID (NFC).

153. Certain Sled Products can be dynamically updated through a computer network.

154. For example, the RFD40 (Premium Series) and RFD90 can receive over the air updates.

155. Certain Sled Product can be configured to be monitored by one or more monitoring systems over the Internet.

156. For example, the RFD40, RFD40 (Premium Series), and RFD90 can be monitored over the internet when placed in the charging cradle. *See* <https://www.zebra.com/us/en/products/spec-sheets/rfid/rfid-handhelds/rfd90.html>.

157. Each Sled Product has a shockproof housing.

158. For example, each Exemplar Sled Product is contained in a ruggedized housing subjected to drop tests.

159. Certain Sled Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or High Frequency RFID.

160. For example, Zebra's RFD40 (Premium Series) and RFD90 products can communicate using Bluetooth, wireless (Wi-Fi), USB, and high-frequency RFID (NFC).

161. Each Sled Product can interconnect with other RFID base units.

162. For example, each Exemplar Sled Product can interconnect with a Zebra Mobile Computer that is also an RFID base unit. For example, the RFD8500, RFD40 (Premium Series), and RFD90 can interconnect with any Zebra Mobile Computer that supports Bluetooth, including any Tap & Act Product discussed below.

163. The RFD40 and RFD2000 can interconnect with the TC21/26 and TC20 respectively via USB.

164. Certain Sled Products can communicate with an automated device via Bluetooth.

165. For example, after the RFD40 (Premium Series), RFD90, or RFD8500 is paired with a Zebra mobile computer such as the EC 55, the mobile computer acts as an automated device by automatically collecting the RFID data sent to it over Bluetooth.

166. To the extent the Sled Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents.

167. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the Sled Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by providing its customers with instructions on how to use the Sled Products in conjunction with other Zebra mobile computer products in an infringing manner. *See, e.g.*, <https://www.youtube.com/watch?v=EwP-opOLeE>.

168. Zebra's RFID Sled Products have no substantial non-infringing use.

169. Zebra has known that the above actions constitute infringement of the '247 Patent based on at least the filing of the complaint in *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions, supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.



**D. The Tap & Act Products**

170. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 74, 82, 85, 86, 87, 138, 144, 147, 149, 151, 152, 154, 155, and 158 of the `247 Patent.

- *Every Zebra Product that has an NFC reader and Bluetooth Connectivity and can use Tap & Pair.*
- *Every Zebra Product that has an NFC reader and Bluetooth Connectivity and can use PrintTouch.*
- *Every Zebra Product that has an NFC reader and Bluetooth and is capable of peer-to-peer exchange between two devices, including but not limited to exchange of photos, business-card exchange, and exchange of other types of data.*
- *Every Zebra Product that has an NFC reader and Bluetooth Connectivity and can take some action via Bluetooth after an NFC tap.*

171. These products are referenced herein as Zebra’s “Tap & Act Products.” A non-exhaustive list of Tap & Act Products includes Zebra’s CC6000, CS60, CS60-HC, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), M60, MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, Omnii-XT15, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, Workabout Pro-4, WS50, WT6000, and WT6300 products (the “Exemplar Tap & Act Products”).

172. Each Tap & Act Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

173. For example, each Exemplar Tap & Act Product has an NFC / HF RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from NFC tags and HF tokens.

### **Near Field Communications**

NFC/HF RFID is a short-range wireless connectivity technology standard that enables secure transaction between a reader and a contactless smartcard. The technology is based on ISO/IEC 14443 type A and B (proximity) ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band.

The device supports the following operating modes:

- Reader mode
- Peer-to-Peer communication
- Card Emulation mode.

Using NFC, the device can:

- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth devices such as printers , ring scanners (ex. RS6000), and headsets (ex. HS3100).
- Exchange data with another NFC device.
- Emulate contactless card such as payment,ticket, or SmartPoster.

The device NFC antenna is positioned to read NFC cards from the top of the device while the device is being held.

EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf))

NFC is a sub-class of Radio Frequency Identification (RFID) technology that is designed for use by devices within close proximity to each other. NFC technology allows devices to establish communication by touching or bringing them into close proximity, usually no more than 7.62 centimeters (3 inches).

ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf))

174. Each Tap & Act Product has a microcontroller.

175. For example, each Exemplar Tap & Act Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.

176. Each Tap & Act Product has a volatile memory.

177. For example, each Exemplar Tap & Act Product includes both SRAM and DRAM.

178. Each Tap & Act Product has a non-volatile memory.

179. For example, each Exemplar Tap & Act Product includes a hard drive or flash memory.

180. Each Tap & Act Product has an operating system.

181. For example, each Exemplar Tap & Act Product has the Android Operating System or Windows Operating System stored in non-volatile memory.

182. Each Tap & Act Product has a processor.

183. For example, each Exemplar Tap & Act Product includes a processor that executes its operating system.

184. Each Tap & Act Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

185. For example, each Exemplar Tap & Act Product's processor can engage or disengage a Bluetooth device after exchanging information about the desired action and Bluetooth pairing information via an NFC tap. Examples include Tap & Pair activity such as Tap & Pair and PrintTouch (the act of tapping to exchange Bluetooth pairing information via NFC and then pairing those devices) as well as performing other types of data exchange via Bluetooth after tapping such as exchanging photos over Bluetooth after establishing a pairing via NFC.

186. For example, when performing Tap & Pair with a target device, such as a Zebra ZQ520 Mobile Printer, the host device uses its NFC reader to read configuration data from an NFC tag on the target device (the RFID circuit), and then uses that configuration information to pair with the target device via Bluetooth (*i.e.*, engage the target device). The host device can then disconnect from the target device thereby disengaging it.

187. Tap & Pair can be accomplished at least one of two ways: (1) using built-in functionality available on all Tap & Act Products that run Android or Windows and have an NFC reader and Bluetooth; and (2) using Zebra's newly-released Tap & Pair on a device running Android that has an NFC reader and Bluetooth. Each is addressed below.

188. Every Zebra device running Android with NFC and Bluetooth is capable of Tap & Pair. Using native Tap & Pair functionality, the NFC-enabled Android device can read an NFC tag containing a target device's Bluetooth MAC address and then pair with that device via Bluetooth. Many Zebra peripherals come pre-equipped with such an NFC tag containing its Bluetooth MAC address as shown below:

## DEVICE INFORMATION, PAIRING & APP LAUNCHING MADE EASY WITH PRINT TOUCH

Make applications and Zebra devices easier to use with Print Touch. Using Near Field Communication (NFC), Print Touch enables new experiences and quick access to helpful information. Print Touch devices offer app and web page launching features, making it easy to access Zebra's extensive knowledge base of how-to videos and product support.

- Pair Link-OS™- and Android™-based NFC-enabled devices with a simple tap
- Use Print Touch to create apps that launch instantly

Print Touch is available for use with the following Zebra devices:

**IMZ220 And IMZ320 Mobile Printers**

**QLn220/320 Mobile Printers**

**QLn420 Mobile Printers**

**QLn220/320 Healthcare Mobile Printers**

**ZD410 Desktop Printer**

**ZD420 Series Desktop Printers**

**ZD500 Desktop Printer**

**ZD500R RFID Printer**

**ZD510-HC Wristband Printers**

**ZD620 Series Desktop Printers**

**ZQ300 Series Mobile Printers**

**ZQ500 Series Mobile Printers**

**ZQ600 Series Mobile Printers**

**ZQ600 Series Healthcare Mobile Printers**

**ZT400 Series Industrial Printers**

**ZT510 Industrial Printer**

**ZT600 Series Industrial Printers**

<https://www.zebra.com/us/en/products/software/barcode-printers/link-os/print-touch.html>.

189. Further, as explained in the ZQ500 Series Printers User Guide and ZQ520 RFID Mobile Printer Specification Sheet, for example:



ZQ500 Series Printers User Guide, p. 38 (IT001379)

The ZQ520 RFID printer offers several Link-OS environment software solutions and tools, including:

- PrintTouch NFC technology for fast pairing and easy access to essential data

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**PRINTER NAME**

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ZQ520

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**STANDARD FEATURES**

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- Zebra® Print Touch simplifies Bluetooth pairing and launches web-based help pages with Near Field Communication (NFC) enabled devices

ZQ520 RFID Mobile Printer Specification Sheet, pp. 2, 5.

190. Zebra also provides instructions for creating NFC tags to add to existing Zebra devices without a built-in tag or a damaged tag, thus enabling Tap & Par on additional devices:

Creating Android NFC Pairing tags for Bluetooth devices

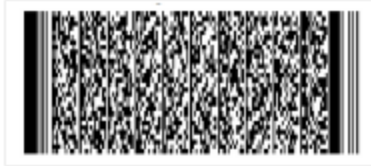
Ian Hatton

Zebra Technologies EMEA

Sept 2019

Overview

This document details the process required to create an Android NFC pairing tag for most Bluetooth devices in order to allow tap to pair without any additional software i.e. using the integrated Android tap and pair functionality. This has been tested on various Zebra Android devices running OS versions from KitKat to Pie. The utilities required to create the pairing barcode are included in the file set which can be deployed onto any Zebra NFC-capable Android with a preconfigured internet connection by scanning the StageNow barcode below (utilities in this profile are attached to this post and also available at : [http://zebra.airsetup.com/2019/nfc/nfc\\_pair\\_new.zip](http://zebra.airsetup.com/2019/nfc/nfc_pair_new.zip) )



This has currently been tested for pairing with the following Zebra hardware :

- a. Zebra ZQ/CZ/MZ/IMZ printers using a new NFC pairing tag to replace the integrated tag (if fitted) since that has a proprietary Zebra format
- b. RFD8500 - allows easy pairing without any configuration on the RFD side
- c. CS4070 – enable secure simple pairing in the config.ini file via changing the line below:

```
HIDSecurity=Low
```

- d. R56000 – the embedded NFC tag in the R56000 is already in the correct format for this pairing i.e. to just tap to pair on a Zebra device.

<https://developer.zebra.com/blog/creating-android-nfc-pairing-tags-bluetooth-devices>

191. Zebra provides customers with a staging profile to install the required apps:

integrated Android tap and pair functionality. This has been tested on various Zebra Android devices running OS versions from KitKat to Pie. The utilities required to create the pairing barcode are included in the file set which can be deployed onto any Zebra NFC-capable Android with a preconfigured internet connection by scanning the StageNow barcode below (utilities in this profile are attached to this post and also available at : [http://zebra.airsetup.com/2019/nfc/nfc\\_pair\\_new.zip](http://zebra.airsetup.com/2019/nfc/nfc_pair_new.zip) )



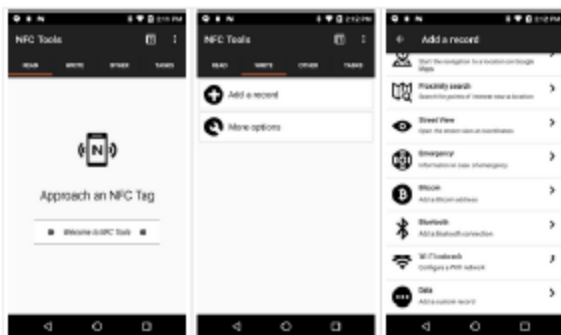
<https://developer.zebra.com/blog/creating-android-nfc-pairing-tags-bluetooth-devices>

192. This process works for “any Zebra NFC-capable Android” device.

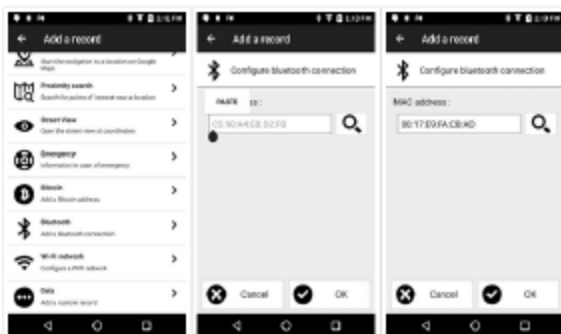
193. The process involves obtaining the Bluetooth MAC address of the desired target device (an RFD8500, for example), writing that information to an NFC tag using the supplied third-party app NFC Tools, and affixing the tag to the target device. *Id.*

3. Click the device address to copy the MAC address to the clipboard

4. Run NFC Tools, select Write tab and Add a record



5. Select Bluetooth and hold on field to paste device MAC address selected in step 3



6. Press OK and then select Write and approach the required NFC tag to write the new contents. Apply NFC tag to target Bluetooth device. Check that device is powered on and in pairing mode (this is default for Zebra printers i.e. pairing is enabled when the device is powered on and it is not already paired with another device)

<https://developer.zebra.com/blog/creating-android-nfc-pairing-tags-bluetooth-devices>

194. Additionally, every Zebra device running Windows 8.1 or Windows 10 with NFC and Bluetooth is capable of “Tap to Connect” or “Tap and Setup” (the equivalent of Tap & Pair). Using this native functionality, the NFC-capable Windows device can read an NFC tag containing a target device’s Bluetooth MAC address and then pair with that device via Bluetooth.



# Tap and Setup

*Tap and Setup* is a wireless device installation experience for peripheral devices. The category includes keyboards, mice, headphones, and printers. Tap and setup supports three different types of device installations: Bluetooth unidirectional pairing, network printer installation, and Wi-Fi Direct printer pairing. Windows will only install devices, which support unidirectional communication over NFC. Smart devices that require bidirectional communication over NFC are not supported. Using this experience, a user can tap compatible devices to Windows to initiate the device setup experience.

Use category: personal or enterprise (interpersonal).

<https://docs.microsoft.com/en-us/windows-hardware/drivers/nfc/tap-and-do-use-cases>.

## Windows 8.1 / Windows Server 2012 R2 – NFC “tap to connect” Printer Connections

By  Craig Marcho

Published Mar 16 2019 05:16 AM

600 Views

First published on **TECHNET** on Oct 21, 2013

Hello folks, today I am going to talk about a new feature that's available in Microsoft Windows 8.1 and Server 2012 R2 called **NFC “tap to connect” Printing**. NFC stands for **Near Field Communication**, which allows a two way communication between devices (endpoints) within a very close proximity; typically no more than few centimeters.

<https://techcommunity.microsoft.com/t5/ask-the-performance-team/windows-8-1-windows-server-2012-r2-8211-nfc-8220-tap-to-connect/ba-p/375401>.

195. This functionality is further described in the Windows User Guides for the ET51/56 and ET80/85 tablets.

- Out of Band (OOB) and Near Field Communications (NFC) - Allows for pairing of a Bluetooth device such as headsets and scanners by touching the devices together (NFC tap to pair).

ET51/56 Enterprise Tablet User Guide for Microsoft Windows 10 IoT Enterprise, p. 49.

- Out of Band (OOB) and Near Field Communications (NFC) - Allows for pairing of a Bluetooth device such as headsets and scanners by touching the devices together (NFC tap to pair).

ET80/85 Rugged 2-in-1 Tablet Product Reference Guide for Microsoft Windows 10, p. 46

196. Many Zebra peripherals come pre-equipped with such an NFC tag containing its Bluetooth MAC address. *See, e.g.*, <https://www.zebra.com/us/en/products/software/barcode-printers/link-os/print-touch.html>. This will then allow any Zebra NFC-capable Windows 8.1 or Windows 10 device to read the target device's Bluetooth MAC address via NFC and then engage the device by pairing with it. The Zebra NFC-capable Windows device can later disengage the target device by unpairing with it.

197. Zebra has also released a Zebra Tap & Pair app that infringes in the same way.

## TAP & PAIR

Zebra's simple printer pairing solution for Android devices leverages NFC and Zebra's Link-OS Print Touch feature.

- Simple & consistent Zebra device pairing
- Intuitive connectivity
- Reduced setup time
- Reliable & intentional pairing events

[Download Tap & Pair](#)

[Tap & Pair App Instructions](#)



<https://www.zebra.com/us/en/products/software/barcode-printers/link-os/tap-pair.html>.

198. Zebra's Tap & Pair app is compatible with many Zebra target devices as listed at <https://www.zebra.com/us/en/support-downloads/printer-software/tap-pair.html>.

- DOWNLOAD
Collapse Versions

**VERSIONS**

- 1.0
Release Date: March 2022

**Device Compatibility**

This software has been approved for use with the following devices:

- QLn Series Mobile Printers	- ZD620 Series	- ZT420 Industrial Printer
- QLn220 Healthcare	- ZQ300 Series	- ZT500 Industrial Printers
- QLn220 Mobile Printer	- ZQ310	- ZT510 Industrial Printer
- QLn320 Mobile Printer	- ZQ320	- ZT600 Series Industrial Printers
- QLn420 Mobile Printer	- ZQ510 Mobile Printer	- ZT600 Series RFID Printers
- ZD410 Series	- ZQ520 Mobile Printer	- ZT610 Industrial Printer
- ZD420 Series	- ZQ610	- iMZ Series Mobile Printers
- ZD500 Desktop Printer	- ZQ620	- iMZ220 Mobile Printer
- ZD500R RFID Printers	- ZT400 Series	- iMZ320 Mobile Printer
- ZD510-HC Wristband Printer	- ZT410 Industrial Printer	

**Software**

**ZebraTapAndPair-v2\_0\_0\_0.zip**
[Download 201 KB](#)

199. As with the built-in functionality, Zebra's Tap & Pair app allows any Zebra NFC-capable Android device to read the target device's Bluetooth MAC address via NFC and then engage the device by pairing with it. The Zebra NFC-capable Android device can later disengage the target device by unpairing with it.

200. Devices that a Tap & Act product can pair with include, for example, Zebra's HS3100/HS2100, RFD40 (Premium Series), RFD90, RS5000, RS5100, RS6000, iMZ220, iMZ320, QLn220 Healthcare, QLn220, QLn320, QLn420, ZC100, ZC300 Series, ZC350, ZD410, ZD410-HC, ZD420, ZD420C, ZD420C-HC, ZD420-HC, ZD421 (Healthcare Series), ZD421 Series, ZD500, ZD500R, ZD510-HC, ZD620, ZD620-HC, ZD621 (Healthcare Series), ZD621 Series, ZE511/ZE521, ZE511/ZE521-RFID, ZQ300 Series, ZQ310, ZQ320, ZQ510, ZQ520, ZQ511/ZQ521, ZQ511/ZQ521-RFID, ZQ600, ZQ600-HC, ZQ630-RFID, ZT400-RFID Series, ZT400 Series, ZT510, ZT610, ZT620, ZXP Series 3, and ZXP Series 9 products.

201. Further, at least Android-based Tap & Act Products can exchange data with one another as described above.

202. Each Tap & Act Product has multiple antennas.

203. For example, each Exemplar Tap & Act Product has an NFC antenna for communicating with an NFC tag as well as a Bluetooth antenna supporting Bluetooth connectivity.

204. Each Tap & Act Product has RF circuitry.

205. For example, each Exemplar Tap & Act Product has RF circuitry that implements NFC and Bluetooth.

206. Each Tap & Act Product has at least one rechargeable battery that powers an integrated circuit.

207. For example, each Exemplar Tap & Act Product has at least one rechargeable battery that powers an integrated circuit.

208. Each Tap & Act Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

209. For example, each Exemplar Tap & Act Product can communicate using at least NFC (high-frequency RFID) and Bluetooth.

210. Each Tap & Act Product can communicate with at least two security devices using a wireless protocol.

211. For example, each Exemplar Tap & Act Product can communicate with a device's emulated NFC tag containing Bluetooth pairing information which acts as a security device at least because it can store Bluetooth pairing information such as a Bluetooth MAC address as well as a device's Bluetooth module which acts as a security device at least because it can encrypt data exchange.

212. Each Tap & Act Product can store information related to authorization in the internal memory.

213. For example, each Exemplar Tap & Act Product can read Bluetooth access authorization information from a devices emulated NFC tag and store that authorization information in internal memory.

214. Each Tap & Act Product has a shockproof housing.

215. For example, each Exemplar Tap & Act Product is contained in a ruggedized housing subjected to drop tests.

216. Certain Tap & Act Products include a fingerprint reader.

217. For example, at least Zebra's ET80/ET85, L10ax (Windows), L10 (Windows), and XSLATE-R12 products include a fingerprint reader.

218. Certain Tap & Act Products include a facial recognition scanner.

219. For example, at least Zebra's ET80/ET85 and L10ax (Windows) products include a facial recognition scanner.

220. Certain Tap & Act Products provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

221. For example, all Tap & Act Products that include Push-to-Talk Express ("PTTE") can provide notification of operation of the system is through Voice Over Internet Protocol (VOIP). These include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET80/ET85, L10 (Android), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, Omnii-XT15, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x/TC57x, TC52x-

HC, TC52x-HC Series, TC53/TC58, TC5X Series, TC70, TC72/TC77, TC75, TC8300, Workabout Pro-4, WS50, WT6000, and WT6300 products.

222. Each Tap & Act Product can interconnect with other RFID base units.

223. For example, each Exemplar Tap & Act Product can interconnect with the Exemplar Sled Products via either Bluetooth or USB.

224. As another example, each Exemplar Tap & Act Product can interconnect with the Exemplar Printer Products via either Bluetooth.

225. Each Tap & Act Product can communicate with an automated device via Bluetooth.

226. For example, each Exemplar Tap & Act Product can pair with the RFD8500 Sled via Bluetooth.

227. The RFD8500 Sled is an automated device at least because it can automatically send a Tap & Act Product RFID tag data when it reads an RFID tag.

228. As another example, each Exemplar Tap & Act Product can communicate with the Exemplar Printer Products via Bluetooth.

229. The Printer Products can act as automated devices at least because they automatically print upon request.

230. As another example, each Exemplar Tap & Act Product can exchange data with another Exemplar Tap & Act Product.

231. The second Tap & Act Product acts as an automated device at least because it automatically sends data upon establishment of the connection.

232. Certain Tap & Act Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or High Frequency RFID.

233. For example, every Tap & Act Product that is also a StageNow Product (discussed above) can communicate using Bluetooth, wireless (Wi-Fi) and High Frequency RFID (NFC).

234. To the extent the Tap & Act Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents. By way of example only, to the extent NFC is found to not be RFID, the two are equivalent under the doctrine of equivalents.

235. For example, NFC performs substantially the same function, in substantially the same way, to achieve the same result as HF RFID. The purpose of HF RFID is to store information on HF RFID tags that can be read wirelessly by an HF RFID reader. Similarly, one purpose of NFC is to store information on an NFC tag that can be read wirelessly. Both HF RFID and NFC accomplish this function substantially the same way—by transmitting information via transferred energy in radio waves at 13.56 MHz—and achieve the same result—transmission of the information.

236. As another example, insubstantial differences exist between NFC and HF RFID. While NFC provides more functionality than HF RFID, it provides all of the functionality of HF RFID. Evidence that the differences between NFC and HF RFID as used by Zebra are insubstantial include Zebra's use of the terms in an almost interchangeable manner in its own documentation as shown above. *See, e.g.*, EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-)

[computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](#)); ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf)).

237. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the Tap & Act Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by providing its customers with instructions on how to create NFC tags for Bluetooth-pairable products enabling Tap & Pair. *See, e.g.,* <https://developer.zebra.com/blog/creating-android-nfc-pairing-tags-bluetooth-devices>.

238. Zebra's Tap & Act Products have no substantial non-infringing use.

239. Zebra has known that the above actions constitute infringement of the '247 Patent based on at least the filing of the complaint in *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions, supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.

#### **E. The NFC Pairable Products**

240. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 72, 73, 82, 86, 87, 149, 151, 154, and 155 of the '247 Patent.

- ***Every Zebra Product that includes an NFC tag, Bluetooth, and is designed to be paired with a Tap & Act Product (discussed above) via NFC.***

241. These products are referenced herein as Zebra's "NFC Pairable Products." A non-exhaustive list of NFC Pairable Products includes Zebra's HS3100/HS2100, iMZ220, iMZ320, QLn220, QLn220 Healthcare, QLn320, QLn420, RFD40 (Premium Series), RFD90, RS5000, RS5100, RS6000, TFF-5110, ZC100, ZC300 Series, ZC350, ZD410, ZD410-HC, ZD420, ZD420C, ZD420C-HC, ZD420-HC, ZD421 (Healthcare Series), ZD421 Series, ZD500,



ZD500R, ZD510-HC, ZD620, ZD620-HC, ZD621 (Healthcare Series), ZD621 Series, ZE511/ZE521, ZE511/ZE521-RFID, ZQ300 Series, ZQ310, ZQ320, ZQ510, ZQ511/ZQ521, ZQ511/ZQ521-RFID, ZQ520, ZQ600, ZQ600-HC, ZQ630-RFID, ZT400 Series, ZT400-RFID Series, ZT510, ZT610, ZT620, ZXP Series 3, and ZXP Series 9 products (the “Exemplar NFC Pairable Products”).

242. Each NFC Pairable Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

243. For example, Each Exemplar NFC Pairable Product has an NFC / HF RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from NFC tags and HF tokens.

### **Near Field Communications**

NFC/HF RFID is a short-range wireless connectivity technology standard that enables secure transaction between a reader and a contactless smartcard. The technology is based on ISO/IEC 14443 type A and B (proximity) ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band.

The device supports the following operating modes:

- Reader mode
- Peer-to-Peer communication
- Card Emulation mode.

Using NFC, the device can:

- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth devices such as printers , ring scanners (ex. RS6000), and headsets (ex. HS3100).
- Exchange data with another NFC device.
- Emulate contactless card such as payment,ticket, or SmartPoster.

The device NFC antenna is positioned to read NFC cards from the top of the device while the device is being held.

EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf))

NFC is a sub-class of Radio Frequency Identification (RFID) technology that is designed for use by devices within close proximity to each other. NFC technology allows devices to establish communication by touching or bringing them into close proximity, usually no more than 7.62 centimeters (3 inches).

ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf))

244. Each NFC Pairable Product has a microcontroller.
245. For example, each Exemplar NFC Pairable Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.
246. Each NFC Pairable Product has a volatile memory.
247. For example, each Exemplar NFC Pairable Product includes both SRAM and DRAM.
248. Each NFC Pairable Product has a non-volatile memory.
249. For example, each Exemplar NFC Pairable Product includes a hard drive or flash memory.
250. Each NFC Pairable Product has an operating system.
251. For example, each Exemplar NFC Pairable Product has an operating system stored in non-volatile memory.
252. Each NFC Pairable Product has a processor.
253. For example, each Exemplar NFC Pairable Product includes a processor that executes its operating system.
254. Each NFC Pairable Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

255. For example, each Exemplar NFC Pairable Product's processor can engage or disengage a Bluetooth device after exchanging information about the desired action and Bluetooth pairing information via an NFC tap. Examples include Tap & Pair activity such as Tap & Pair and PrintTouch (the act of tapping to exchange Bluetooth pairing information via NFC and then pairing those devices).

256. Each NFC Pairable Product has multiple antennas.

257. For example, each Exemplar NFC Pairable Product has an NFC antenna for communicating with an NFC tag as well as a Bluetooth antenna supporting Bluetooth connectivity.

258. Each NFC Pairable Product has RF circuitry.

259. For example, each Exemplar NFC Pairable Product has RF circuitry that implements NFC and Bluetooth.

260. Each NFC Pairable Product has at least one rechargeable battery that powers an integrated circuit.

261. For example, each Exemplar NFC Pairable Product has at least one rechargeable battery that powers an integrated circuit.

262. Each NFC Pairable Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

263. For example, each Exemplar NFC Pairable Product can communicate using at least NFC (high-frequency RFID) and Bluetooth.

264. Each NFC Pairable Product can communicate with at least two security devices using a wireless protocol.

265. For example, each NFC Pairable Product can communicate with a device's emulated NFC tag containing Bluetooth pairing information which acts as a security device at least because it can store Bluetooth pairing information such as a Bluetooth MAC address as well as a device's Bluetooth module which acts as a security device at least because it can encrypt data exchange.

266. Each NFC Pairable Product can store information related to authorization in the internal memory.

267. For example, each NFC Pairable Product can read Bluetooth access authorization information from a device's emulated NFC tag and store that authorization information in internal memory.

268. Certain NFC Pairable Product can be dynamically updated through a computer network.

269. For example, Zebra's Printer Product such as Zebra's ZC100, ZC300 Series, ZC350, ZD410, ZD410-HC, ZD420, ZD420C, ZD420C-HC, ZD420-HC, ZD421 (Healthcare Series), ZD421 Series, ZD500R, ZD510-HC, ZD620, ZD620-HC, ZD621 (Healthcare Series), ZD621 Series, ZE511/ZE521, ZE511/ZE521-RFID, ZQ300 Series, ZQ511/ZQ521, ZQ511/ZQ521-RFID, ZQ600, ZQ600-HC, ZQ630-RFID, ZT400-RFID Series, ZT400 Series, ZT510, ZXP Series 3, and ZXP Series 9 products, can undergo firmware updates using FTP. *See* [https://supportcommunity.zebra.com/s/article/Zebra-Printer-Firmware-Upgrade-Information?language=en\\_US](https://supportcommunity.zebra.com/s/article/Zebra-Printer-Firmware-Upgrade-Information?language=en_US).

270. Certain NFC Pairable Product can be configured to be monitored by one or more monitoring systems over the Internet.

271. For example, Zebra's Printer Product such as Zebra's ZC100, ZC300 Series, ZC350, ZD410, ZD410-HC, ZD420, ZD420C, ZD420C-HC, ZD420-HC, ZD421 (Healthcare Series), ZD421 Series, ZD500R, ZD510-HC, ZD620, ZD620-HC, ZD621 (Healthcare Series), ZD621 Series, ZE511/ZE521, ZE511/ZE521-RFID, ZQ300 Series, ZQ511/ZQ521, ZQ511/ZQ521-RFID, ZQ600, ZQ600-HC, ZQ630-RFID, ZT400-RFID Series, ZT400 Series, ZT510, ZXP Series 3, and ZXP Series 9 products can be monitored using the ZDesigner Port Monitor. See [https://supportcommunity.zebra.com/s/article/Zebra-Setup-Utilities--Installing-the-ZebraDesigner-Port-Monitor?language=en\\_US](https://supportcommunity.zebra.com/s/article/Zebra-Setup-Utilities--Installing-the-ZebraDesigner-Port-Monitor?language=en_US).

272. Each NFC Pairable Product can interconnect with other RFID base units.

273. For example, each NFC Pairable Product can interconnect with any Tap & Act Product discussed above via Bluetooth.

274. Each NFC Pairable Products can communicate with an automated device via Bluetooth.

275. For example, each Exemplar NFC Pairable Product pairs with another device such as a Tap & Act Product in which case the Tap & Act Product acts as an automated device because it automatically pairs with the NFC Pairable Device via Bluetooth after exchanging pairing information via NFC.

276. To the extent the NFC Pairable Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents. By way of example only, to the extent NFC is found to not be RFID, the two are equivalent under the doctrine of equivalents.

277. For example, NFC performs substantially the same function, in substantially the same way, to achieve the same result as HF RFID. The purpose of HF RFID is to store information on HF RFID tags that can be read wirelessly by an HF RFID reader. Similarly, one

purpose of NFC is to store information on an NFC tag that can be read wirelessly. Both HF RFID and NFC accomplish this function in substantially the same way—by transmitting information via transferred energy in radio waves at 13.56 MHz—and achieves the same result—transmission of the information.

278. As another example, insubstantial differences exist between NFC and HF RFID. While NFC provides more functionality than HF RFID, it provides all of the functionality of HF RFID. Evidence that the differences between NFC and HF RFID as used by Zebra are insubstantial include Zebra's use of the terms in an almost interchangeable manner in its own documentation as shown above. *See, e.g.*, EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf)); ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf)).

279. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the NFC Pairable Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by providing its customers with instructions on how to create Tap & Pair device. *See, e.g.*, <https://www.zebra.com/us/en/support-downloads/tap-pair-instructions.html>.

280. Zebra's NFC Pairable Products have no substantial non-infringing use.

281. Zebra has known that the above actions constitute infringement of the '247 Patent based on at least the filing of *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions,

supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.

**F. The Contactless Payment Products**

282. Every Zebra Product matching at least one of the following descriptions infringes at least one of Claims 63, 71, 72, 73, 82, 86, 87, 138, 144, 147, 149, 151, 154, and 155 of the '247 Patent.

- *Every Zebra Product that has an NFC reader and contactless payment functionality.*

283. These products are referenced herein as Zebra’s “Contactless Payment Products.” A non-exhaustive list of Contactless Payment Products includes Zebra’s ET40/ET45, ET40-HC/ET45-HC, and TC53/TC58 products (the “Exemplar Contactless Payment Products”).

284. Each Contactless Payment Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

285. For example, each Exemplar Contactless Payment Product has an NFC / HF RFID reader that can use radio waves to receive, transmit, and relay identifying signals to and from NFC tags and HF tokens.

<b>NFC</b>	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host; Contactless payment support, ECP1.0 and ECP2.0 polling support, Apple VAS certified
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<https://www.zebra.com/us/en/products/spec-sheets/mobile-computers/handheld/tc53-tc58.html>

286. Each Contactless Payment Product has a microcontroller.

287. For example, each Exemplar Contactless Payment Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.

288. Each Contactless Payment Product has a volatile memory.

289. For example, each Exemplar Contactless Payment Product includes both SRAM and DRAM.

290. Each Contactless Payment Product has a non-volatile memory.

291. For example, each Exemplar Contactless Payment Product includes a hard drive or flash memory.

292. Each Contactless Payment Product has an operating system.

293. For example, each Exemplar Contactless Payment Product has the Android Operating System stored in non-volatile memory.

294. Each Contactless Payment Product has a processor.

295. For example, each Exemplar Contactless Payment Product includes a processor that executes its operating system.

296. Each Contactless Payment Product's processor is configured for outputting at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

297. For example, upon information and belief when performing a sales transaction, each Exemplar Contactless Payment Product's processor communicates with an emulated NFC tag to read payment information and then wirelessly engages with a payment processor server to complete the transaction.

298. Each Contactless Payment Product has multiple antennas.

299. For example, each Exemplar Contactless Payment Product has an NFC antenna for communicating with an NFC tag as well as a Wi-Fi antenna and Bluetooth antenna for supporting connectivity.



300. Each Contactless Payment Product has RF circuitry.

301. For example, each Exemplar Contactless Payment Product has RF circuitry that implements NFC, Wi-Fi, and Bluetooth.

302. Each Contactless Payment Product has at least one rechargeable battery that powers an integrated circuit.

303. For example, each Exemplar Contactless Payment Product has at least one rechargeable battery that powers an integrated circuit.

304. Each Contactless Payment Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

305. For example, each Exemplar Contactless Payment Product can communicate using at least NFC (high-frequency RFID), wireless (Wi-Fi), and Bluetooth.

306. Each Contactless Payment Product can communicate with at least two security devices using a wireless protocol.

307. For example, each Exemplar Contactless Payment Product can communicate with an emulated NFC tag containing secure payment information as well as a payment processing service which securely verifies payment.

308. Each Contactless Payment Product can store information related to authorization in the internal memory.

309. For example, each Exemplar Contactless Payment Product can read secure payment authorization information from an emulated NFC tag and store that authorization information in memory.

310. Each Contactless Payment Product can be dynamically updated through a computer network.

311. For example, each Exemplar Contactless Payment Product supports StageNow which can dynamically update each Exemplar Contactless Payment Product via a computer network.

312. Each Contactless Payment Product can be configured to be monitored by one or more monitoring systems over the Internet.

313. For example, each Exemplar Contactless Payment Product supports StageNow which can be used to configure the Exemplar Contactless Payment Products to be monitored using mobile device management over the Internet.

314. Each Contactless Payment Product has a shockproof housing.

315. For example, each Exemplar Contactless Payment Product is contained in a ruggedized housing subjected to drop tests.

316. Each Contactless Payment Products provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

317. For example, each Exemplar Contactless Payment Product includes Push-to-Talk Express (“PTTE”) which can provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

318. Each Contactless Payment Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or High Frequency RFID.

319. For example, each Exemplar Contactless Payment Product can communicate using at least NFC (high-frequency RFID), wireless (Wi-Fi), and Bluetooth.

320. Each Contactless Payment Product can interconnect with other RFID base units.

321. For example, each Exemplar Contactless Payment Product can interconnect with the Exemplar Sled Products via either Bluetooth or USB.

322. As another example, each Exemplar Contactless Payment Product can interconnect with the Exemplar Printer Products via either Bluetooth.

323. Each Contactless Payment Product can communicate with an automated device via Bluetooth.

324. For example, each Exemplar Contactless Payment Product can pair with the RFD8500 Sled via Bluetooth.

325. The RFD8500 Sled is an automated device at least because it can automatically send a Contactless Payment Product RFID tag data when it reads an RFID tag.

326. As another example, each Exemplar Contactless Payment Product can communicate with the Exemplar Printer Products via Bluetooth.

327. The Printer Products can act as automated devices at least because they automatically print upon request.

328. As another example, each Exemplar Contactless Payment Product can exchange data with another Exemplar Contactless Payment Product.

329. The second Contactless Payment Product acts as an automated device at least because it automatically sends data upon establishment of the connection.

330. To the extent the Contactless Payment Products do not literally infringe, Intellectual Tech asserts infringement under the doctrine of equivalents. By way of example only, to the extent NFC is found to not be RFID, the two are equivalent under the doctrine of equivalents.

331. For example, NFC performs substantially the same function, in substantially the same way, to achieve the same result as HF RFID. The purpose of HF RFID is to store information on HF RFID tags that can be read wirelessly by an HF RFID reader. Similarly, one purpose of NFC is to store information on an NFC tag that can be read wirelessly. Both HF RFID and NFC accomplish this function substantially the same way—by transmitting information via transferred energy in radio waves at 13.56 MHz—and achieves the same result—transmission of the information.

332. As another example, insubstantial differences exist between NFC and HF RFID. While NFC provides more functionality than HF RFID, it provides all of the functionality of HF RFID. Evidence that the differences between NFC and HF RFID as used by Zebra are insubstantial include Zebra's use of the terms in an almost interchangeable manner in its own documentation as shown above. *See, e.g.*, EC50/EC55 Enterprise Computer, Product Reference Guide for Android™ 10, p. 93 (2020) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/mobile-computers/ec50\\_ec55/ec50-ec55-a10-prg-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/mobile-computers/ec50_ec55/ec50-ec55-a10-prg-en.pdf)); ZQ511/ZQ521 Mobile Printers User Guide, p. 43 (2021) (available at [https://www.zebra.com/content/dam/zebra\\_new\\_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf](https://www.zebra.com/content/dam/zebra_new_ia/en-us/manuals/printers/mobile/zq500/P1106523-04en-zq500-ug-en.pdf)).

333. Further, Intellectual Tech asserts that Zebra contributes to and/or induces its customers to infringe using the NFC Pairable Products. By way of example only, Zebra contributes to and/or induces its customers to infringe at least by assisting its customers design mobile ordering and point-of-sales solutions. *See, e.g.*, <https://www.zebra.com/us/en/solutions/industry/hospitality/food-beverage/mobile-ordering-payment.html>.

334. Zebra's NFC Contactless Payment Products have no substantial non-infringing use.

335. Zebra has knowledge that its Contactless Payment Products infringe the '247 Patent at least since the filing of this Complaint.

#### **G. The SDK-Compatible Products**

336. Zebra induces and/or contributes to the infringement of every Zebra Product matching at least one of the following descriptions with respect to at least one of Claims 63, 71, 72, 73, 74, 82, 85, 86, 87, 88, 89, 138, 144, 147, 149, 151, 152, 154, 155, and 158 of the '247 Patent.

- *Every Zebra Product that operates an NFC / HF RFID reader or UHF RFID reader and is capable of running applications developed using the Enterprise Mobility Development Kit (EMDK) (the "EMDK Compatible Products").*
- *Every Zebra Product that operates an NFC / HF RFID reader or UHF RFID reader and is capable of running applications developed for Zebra's Enterprise Browser (the "Enterprise Browser Compatible Products").*
- *Every Zebra Product that operates RFID reader and is capable of running applications developed using Zebra's RFID SDK (the "RFID SDK Compatible Products").*
- *Every Zebra Product that operates an NFC / HF RFID reader or UHF RFID reader and is capable of running applications developed using any Zebra software development kit that provides an interface to the NFC / HF RFID reader or UHF RFID reader.*

337. These products are referenced herein as Zebra's "SDK-Compatible Products." A non-exhaustive list of SDK-Compatible Products includes Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300R, MC3300x, MC3300xR, MC3330xR, MC3390R, MC3390xR, MC9300, RFD2000, RFD40, RFD40

(Premium Series), RFD8500, RFD90, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products (the “Exemplar SDK-Compatible Products”).

338. Each SDK-Compatible Product is an RFID base unit at least because they can use radio to receive, transmit, or relay identifying signals.

339. For example, each Exemplar SDK-Compatible Product that has an NFC / HF RFID reader can use radio waves to receive, transmit, and relay identifying signals to and from NFC tags and HF tokens. Exemplar SDK-Compatible Products having an NFC / HF RFID reader include at least Zebra’s CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products.

340. As another example, each Exemplar SDK-Compatible Product that has a UHF RFID reader can use radio waves to receive, transmit, and relay identifying signals to and from UHF RFID tags. Exemplar SDK-Compatible Products having a UHF RFID reader include at least Zebra’s MC3300R, MC3300xR, MC3330xR, MC3390R, MC3390xR, RFD2000, RFD40, RFD40 (Premium Series), RFD8500, and RFD90 products.

341. Each Exemplar SDK-Compatible Product has a microcontroller.

342. For example, each Exemplar SDK-Compatible Product includes a microcontroller comprising at least a processor, volatile memory, and non-volatile memory.

343. Each SDK-Compatible Product has a volatile memory.

344. For example, each Exemplar SDK-Compatible Product includes both SRAM and DRAM.

345. Each SDK-Compatible Product has a non-volatile memory.

346. For example, each Exemplar SDK-Compatible Product includes a hard drive or flash memory.

347. Each SDK-Compatible Product has an operating system.

348. For example, each Exemplar SDK-Compatible Product run either the Android or Windows Operating System stored in non-volatile memory.

349. Each SDK-Compatible Product has a processor.

350. For example, each Exemplar SDK-Compatible Product includes a processor that executes its operating system.

351. Zebra contributes and/or induces its customers to configure each SDK-Compatible Product's processor to output at least one signal adapted to engage or disengage at least one device through at least one connection standard when in communication with an RFID circuit.

352. For example, Zebra teaches its customers how to use the RFID SDK with RFID SDK Compatible Products that are also a Tap & Act Products to connect to an RFID sled such as the RFD8500 and write applications that utilize the system in an infringing manner as described with respect to the Tap & Act Products and Sled Products as explained above.

## Overview

This guide provides a walk-through of the steps for creating an application that uses [RFID API3](#) to perform RFID operations

## What's Next

1. Add code to show the tag reporting unique count and total tag count
2. Add code to configure various reader parameters e.g. Antenna power level and Singulation control to change operational behavior as per need
3. Refer various guides [Guides](#) and RFID demo application source for various features

<https://techdocs.zebra.com/dcs/rfid/android/2-15/samples/hellorfid/>

## Guides

Consult the following developer guides for usage of RFID SDK for Android features and APIs. Each guide explains the concepts behind RFID Reader operations and features with specific instructions for accessing them.

### Great to start from here

[General Programming guidelines](#)  
[Connection and Disconnection](#)  
[Setting up Region](#)  
[Big guide for Write](#)

### Advanced features

[Batch mode handling](#)  
[Gen 2 v2 features](#)

### Events and error handling

[Event Handling](#)  
[Exception and error handling](#)

### Miscellaneous

[Set Attributes](#)

### FAQs

[Questions and Answers](#)

<https://techdocs.zebra.com/dcs/rfid/android/2-15/guide/programming-guides/>

## Overview

This guide provides details about batch mode handling using [RFID API3](#)

## Details

Following describes different stages to working with RFD8500 reader when it is running in batch mode. Please refer RFID Demo application source code for reference

<https://techdocs.zebra.com/dcs/rfid/android/2-15/guide/batchmode/>



353. For example, Zebra teaches its customers how to use the Enterprise Browser with Enterprise Browser Compatible Products that are also a Tap & Act Products to connect to an RFID sled such as the RFD8500 and write applications that utilize the system in an infringing manner as described with respect to the Tap & Act Products and Sled Products as explained above.

## Overview

The RFID Module provides access to functionality of the device's RFID reader, if so equipped.

### Device Support

This module is supported only on the following Zebra devices:


- **MC3190-Z and MC9190-Z** RFID readers
- **MC33xx** RFID reader
- **TC20 with RFD2000** RFID sled
- **Any Zebra Android device** connected to the Zebra RFD8500 Bluetooth RFID sled

## Examples

The HTML/JavaScript code samples below demonstrate how to implement some of this API's basic features.

<https://techdocs.zebra.com/enterprise-browser/latest/api/re2x/rfid/>

354. As another example, Zebra teaches its customers how to use the EMDK with EMDK Compatible Products that are also a Tap & Act Products to read secure NFC tags and also how to pair devices over Bluetooth using the EMDK thus, when combined, utilizing the system in an infringing manner as described with respect to the Tap & Act Products explained above.

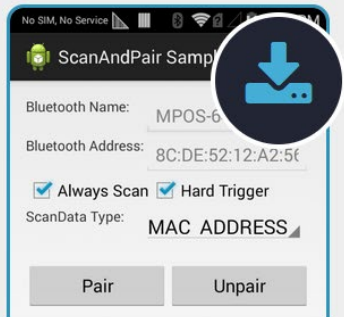


### Secure NFC

This sample demonstrates the EMDK Secure NFC API's which allow your application to securely communicate with the NFC tags such as MifareDesfire, MifarePlus SL3 using the Secure Access Module (SAM)

[See Details](#)

[Source](#)



### Scan and Pair

This sample application will show how the Scan and Pair API can be used to pair two bluetooth devices programmatically.

[See Details](#)

[Source](#)

<https://techdocs.zebra.com/emdk-for-android/5-0/samples/>

355. As shown above, Zebra teaches its customers how to interconnect RFID base units using at least the RFID SDK, Enterprise Browser, and EMDK.

356. Similarly, as shown above, Zebra teaches its customers how to communicate with automated devices via Bluetooth using at least the RFID SDK, Enterprise Browser, and EMDK.

357. Each SDK-Compatible Product has multiple antennas.

358. For example, each Exemplar SDK-Compatible Product having an NFC / HF RFID reader has an NFC antenna for communicating with an NFC tag as well as either a Wi-Fi antenna supporting Wi-Fi connectivity, a Bluetooth antenna supporting Bluetooth connectivity, or both. Exemplar SDK-Compatible Products having an NFC / HF RFID reader include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android

Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products.

359. For example, each Exemplar SDK-Compatible Product having a UHF RFID reader has a UHF RFID antenna for communicating with a UHF RFID tag as well as either a Wi-Fi antenna supporting Wi-Fi connectivity, a Bluetooth antenna supporting Bluetooth connectivity, or both. Exemplar SDK-Compatible Products having a UHF RFID reader include at least Zebra's MC3300R, MC3300xR, MC3330xR, MC3390R, MC3390xR, RFD2000, RFD40, RFD40 (Premium Series), RFD8500, and RFD90 products.

360. Each SDK-Compatible Product has RF circuitry.

361. For example, each Exemplar SDK-Compatible Product has RF circuitry that implements at least one of NFC, UHF RFID, Wi-Fi, or Bluetooth.

362. Each SDK-Compatible Product has at least one rechargeable battery that powers an integrated circuit.

363. For example, each Exemplar SDK-Compatible Product has at least one rechargeable battery that powers an integrated circuit.

364. Each SDK-Compatible Product is configured to communicate using two or more of the following communications protocols: Bluetooth, USB, RS232, wireless, ZigBee or high-frequency RFID.

365. For example, each Exemplar SDK-Compatible Product having an NFC / HF RFID reader has an NFC antenna for communicating with an NFC tag as well as either a Wi-Fi antenna supporting Wi-Fi connectivity, a Bluetooth antenna supporting Bluetooth connectivity, or both. Exemplar SDK-Compatible Products having an NFC / HF RFID reader include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x/TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products.

366. For example, each Exemplar SDK-Compatible Product having a UHF RFID reader has a UHF RFID antenna for communicating with a UHF RFID tag as well as either a Wi-Fi antenna supporting Wi-Fi connectivity, a Bluetooth antenna supporting Bluetooth connectivity, or both. Exemplar SDK-Compatible Products having a UHF RFID reader include at least Zebra's MC3300R, MC3300xR, MC3330xR, MC3390R, MC3390xR, RFD2000, RFD40, RFD40 (Premium Series), RFD8500, and RFD90 products.

367. Each SDK-Compatible Product can communicate with at least two security devices using a wireless protocol.

368. For example, each EMDK Compatible Product can at least communicate with an NFC tag which Zebra teaches can be a secured NFC tag and also pair with a Bluetooth device utilizing a secure pairing method.

369. Each SDK-Compatible Product can store information related to authorization in the internal memory.

370. For example, each EMDK Compatible Product can at least read secure information from a secure NFC tag and store that information in memory.

371. Each SDK-Compatible Product can be dynamically updated through a computer network.

372. For example, every SDK-Compatible product that includes StageNow can be dynamically updated at least using a StageNow staging server via a computer network. Such products include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51/ET56, ET51/ET56-A, L10 (Android), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x/TC57x, TC52x-HC, TC52x-HC Series, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products.

373. Each SDK-Compatible Product can be configured to be monitored by one or more monitoring systems over the Internet.

374. For example, every SDK-Compatible Product that includes StageNow can be configured via StageNow to be monitored using mobile device management over the Internet. Such products include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51/ET56, ET51/ET56-A, L10 (Android), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-

HC, TC52x/TC57x, TC52x-HC, TC52x-HC Series, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 products.

375. Each SDK-Compatible Product has a shockproof housing.

376. For example, each Exemplar SDK-Compatible Product is contained in a ruggedized housing subjected to drop tests.

377. Certain SDK-Compatible Products include a fingerprint reader.

378. For example, at least Zebra's ET80/ET85, L10 (Windows), and L10ax (Windows) products include a fingerprint reader.

379. Certain SDK-Compatible Products include a facial recognition scanner.

380. For example, at least Zebra's ET80/ET85 and L10ax (Windows) products include a facial recognition scanner.

381. Certain SDK-Compatible Products provide notification of operation of the system is through Voice Over Internet Protocol (VOIP).

382. For example, all SDK-Compatible Products that include Push-to-Talk Express ("PTTE") can provide notification of operation of the system is through Voice Over Internet Protocol (VOIP). Such products include at least Zebra's CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET80/ET85, L10 (Android), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300R, MC3300x, MC3300xR, MC3330xR, MC3390R, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x/TC57x, TC52x-HC, TC52x-HC Series, TC53/TC58, TC5X Series, TC70, TC72/TC77, TC75, TC8300, WS50, WT6000, and WT6300 products.

383. Certain SDK-Compatible Products are configured to communicate using three or more of the following communications standards: Bluetooth, USB, RS232, wireless, ZigBee or

High Frequency RFID. For example, at least CC6000, EC50/EC55, ET40/ET45, ET40-HC/ET45-HC, ET50/ET55, ET51 (Android Scanner), ET51 (Windows Scanner), ET51/ET56, ET51/ET56-A, ET51/ET56-W, ET80/ET85, L10 (Android), L10 (Windows), L10ax (Windows), MC2200/MC2700, MC3300, MC3300ax, MC3300x, MC3300xR, MC3330xR, MC3390xR, MC9300, TC21/TC26, TC21-HC/TC26-HC-NA, TC26-CBRS, TC51/TC56, TC52/TC57, TC52-HC, TC52x-HC, TC52x-HC Series, TC52x-TC57x, TC53/TC58, TC55, TC5X Series, TC70, TC72/TC77, TC75, TC8000, TC8300, WS50, WT6000, and WT6300 all utilize at least Bluetooth, wireless (Wi-Fi), and High Frequency RFID (NFC). Similarly, at least Zebra's MC3300R, MC3300xR, MC3330xR, MC3390R, MC3390xR, RFD40, RFD40 (Premium Series), RFD8500, and RFD90 products all utilize at least Bluetooth, wireless (Wi-Fi), and USB.

384. When the components of the EMDK, Enterprise Browser, and RFID SDK are used as described above, these components have no substantial non-infringing use.

385. Further, Zebra has known that the above actions constitute infringement of the '247 Patent based on at least the filing of *Intellectual Tech, LLC v. Zebra Technologies Corporation*, Civil Action No. 6:19-cv-00628-ADA (W.D. Tex.) as well as the initial infringement contentions, supplemental infringement contentions, and the Expert Report of Dr. Emmanouil M. Tentzeris Regarding Infringement served therein.

386. Despite this, Zebra continues to encourage its customers to configure its products in infringing ways utilizing at least the EMDK, Enterprise Browser, and RFID SDK.

#### **H. Willful Patent Infringement**

387. Zebra's acts of infringement have been willful and in disregard for the '247 Patent, without any reasonable basis for believing that it had a right to engage in the infringing conduct. Zebra has known of the existence of the '247 Patent since at least October

22, 2019, when Intellectual Tech filed suit on the `247 Patent and the same claims against Zebra. During the pendency of that matter, Intellectual Tech provided detailed infringement contentions and an expert report on infringement. The Court construed the claims, rejecting Zebra's proposed constructions and adopting Intellectual Tech's proposed constructions. Zebra answered written discovery and admitted to practicing many of the limitations in the Asserted Claims. In an investigation before the International Trade Commission, Zebra made many admissions through written discovery, oral testimony, and expert reports and testimony as to the functionality of the Accused Products and further admitted to practicing many of the limitations in the Asserted Claims. Nevertheless, Zebra deliberately continues to sell Accused Products and has launched additional Accused Products since October 2019 despite the knowledge that it infringes the `247 Patent. Zebra has not asserted or provided an opinion of counsel as evidence of no willfulness.

#### **ADDITIONAL ALLEGATIONS**

388. Intellectual Tech has complied with 35 U.S.C. § 287.

#### **NOTICE REQUIREMENT OF LITIGATION HOLD**

389. Defendant is hereby notified it is legally obligated to locate, preserve, and maintain all records, notes, drawings, documents, data, communications, materials, electronic recordings, audio/video/photographic recordings, and digital files, including edited and unedited or "raw" source material, and other information and tangible things that Defendant knows, or reasonably should know, may be relevant to actual or potential claims, counterclaims, defenses, and/or damages by any party or potential party in this lawsuit, whether created or residing in hard copy form or in the form of electronically stored information (hereafter collectively referred to as "Potential Evidence").



390. As used above, the phrase “electronically stored information” includes without limitation: computer files (and file fragments), e-mail (both sent and received, whether internally or externally), information concerning e-mail (including but not limited to logs of e-mail history and usage, header information, and deleted but recoverable emails), text files (including drafts, revisions, and active or deleted word processing documents), instant messages, audio recordings and files, video footage and files, audio files, photographic footage and files, spreadsheets, databases, calendars, telephone logs, contact manager information, internet usage files, and all other information created, received, or maintained on any and all electronic and/or digital forms, sources and media, including, without limitation, any and all hard disks, removable media, peripheral computer or electronic storage devices, laptop computers, mobile phones, personal data assistant devices, Samsung devices, iPhones, video cameras and still cameras, and any and all other locations where electronic data is stored. These sources may also include any personal electronic, digital, and storage devices of any and all of Defendant’s agents, resellers, or employees if Defendant’s electronically stored information resides there.

391. Defendant is hereby further notified and forewarned that any alteration, destruction, negligent loss, or unavailability, by act or omission, of any Potential Evidence may result in damages or a legal presumption by the Court and/or jury that the Potential Evidence is not favorable to Defendant’s claims and/or defenses. To avoid such a result, Defendant’s preservation duties include, but are not limited to, the requirement that Defendant immediately notify its agents and employees to halt and/or supervise the autodelete functions of Defendant’s electronic systems and refrain from deleting Potential Evidence, either manually or through a policy of periodic deletion.

**JURY DEMAND**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Intellectual Tech demands a trial by jury on all issues triable as such.

**PRAYER FOR RELIEF**

Intellectual Tech requests that this Court find in its favor and against Defendant, and that this Court grant Intellectual Tech the following relief:

- A. An adjudication that Defendant has infringed the '247 Patent;
- B. An award of damages to be paid by Defendant adequate to compensate Intellectual Tech for Defendant's past infringement of the Patents-in-Suit and any continuing or future infringement through the date such judgment is entered (but in no event less than a reasonable royalty in accordance with 35 U.S.C. § 284), including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. An adjudication that Defendant's infringement has been willful and an award of enhanced damages up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;
- D. A permanent injunction enjoining Defendant and its officers, agents, servants, employees, users, attorneys, and all those persons in active concert or participation with Defendant from the acts described in this Complaint;
- E. Alternatively, an order requiring Defendant to pay an ongoing royalty in an amount to be determined for any continued infringement after the date judgment is entered;
- F. An award of pre-judgment and post-judgment interest to the full extent allowed under the law, as well as their costs;
- G. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Intellectual Tech's reasonable attorneys' fees;

H. An award to Intellectual Tech of such further relief at law or in equity as the Court deems just and proper.

Dated: July 15, 2022

Respectfully submitted,

*/s/ Gary R. Sorden*

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