Mobilize quickly, take advantage of existing IT infrastructure, and extend your business processes beyond enterprise boundaries with SAP NetWeaver Mobile.
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About This Document

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Contacts

You can contact Zebra Technologies at the following:

Web Site

http://www.zebra.com

Technical Support via the Internet is available 24 hours per day, 365 days per year. Go to http://www.zebra.com/support.

The Americas

<table>
<thead>
<tr>
<th>Regional Headquarters</th>
<th>Technical Support</th>
<th>Customer Service Dept.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zebra Technologies International, LLC</td>
<td>T: +1 877 ASK ZEBRA (275 9327)</td>
<td>For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +1 877 ASK ZEBRA (275 9327)</td>
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<tr>
<td>F: +1 847 913 8766</td>
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<td>Zebra Technologies Europe Limited Zebra House The Valley Centre, Gordon Road High Wycombe Buckinghamshire, HP13 6EQ, UK</td>
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<td>E: <a href="mailto:cseurope@zebra.com">cseurope@zebra.com</a></td>
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Document Conventions

The following conventions are used throughout this document to convey certain information.

**Alternate Color** (online only) Cross-references contain hot links to other sections in this guide. If you are viewing this guide online in .pdf format, you can click the cross-reference (blue text) to jump directly to its location.

**LCD Display Examples** Text from a printer’s Liquid Crystal Display (LCD) appears in Bubbledot ICG font.

**Command Line Examples** Command line examples appear in Courier New font. For example, type `ZTools` to get to the Post-Install scripts in the `bin` directory.

**Files and Directories** File names and directories appear in Courier New font. For example, the `Zebra<version number>.tar` file and the `/root` directory.

**Icons Used**

- **Important** • Advises you of information that is essential to complete a task.

- **Note** • Indicates neutral or positive information that emphasizes or supplements important points of the main text.

- **Example** • Provides an example, often a scenario, to better clarify a section of text.

**Illustration Callouts** Callouts are used when an illustration contains information that needs to be labeled and described. A table that contains the labels and descriptions follows the graphic. Figure 1 provides an example.

---

**Figure 1 • Sample Figure with Callouts**

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1. ZPL Code
2. Generated Label
The SAP NetWeaver Mobile component is the technical foundation for enterprise mobility within SAP NetWeaver. With SAP NetWeaver Mobile, your business can mobilize quickly, taking advantage of existing IT infrastructure and extending your tried-and-true business processes within and beyond enterprise boundaries.

SAP NetWeaver Mobile comprises three mobile client technologies to enable standardized mobile business solutions as well as customer-specific developments. These clients are optimized for specific user roles and target devices.

- **Mobile Java client** – Optimized for personal digital assisted (PDA) or handheld devices that display occasionally connected applications, such as mobile asset management
- **Mobile .NET client** – Designed for Microsoft Windows-based devices that display occasionally connected CRM field applications with a rich function set
- **Mobile browser client** – Designed for mobile devices that are always connected to a Web server using a technology such as WAP, wireless LAN, Bluetooth, and GPRS.

As an integrated component of SAP NetWeaver, SAP NetWeaver Mobile leverages the overall platform benefits. Features and functions include:

- **Mobile business in both connected and disconnected modes** – Because SAP NetWeaver Mobile provides a local run-time environment, employees can perform their jobs whether disconnected or connected to the systems at their main office.

- **Synchronization** – With solutions powered by SAP NetWeaver Mobile, employees can store data offline on their mobile device and then synchronize information on back-end systems as needed.

- **Development of mobile solutions** – SAP NetWeaver Mobile provides a mobile development kit that helps developers build and customize mobile solutions that are tightly integrated with the back-end system.

- **Central administration and deployment** – SAP NetWeaver Mobile provides a console that enables system administrators to centrally manage mobile solutions and infrastructure.
What is SAP Mobile Infrastructure

Mobile Infrastructure serves as the universal platform for mobilizing your enterprise applications and powering the benefits of SAP Solutions for Mobile Business. Mobile Infrastructure is embedded within SAP NetWeaver, which provides the technology foundation for mySAP Business Suite.

Installed locally on each mobile device, the Mobile Infrastructure client includes its own Web server, database layer, and business logic—all part of a light-installation runtime environment that extends enterprise capabilities to user whether or not they're connected to the network. For data manipulated in the field, Mobile Infrastructure provides a synchronization and replication layer that resolves enterprise level data redundancy by synchronizing mobile devices with backend systems using a specially configured middleware server. Mobile Infrastructure also includes a centralized, role-based deployment console that simplifies deployment tasks in a global, multiple-device IT environment.
Solution Components

It is assumed that the following components are available and that a full understanding of the SAP Mobile Infrastructure is

• SAP Mobile Infrastructure V2.5 with the latest Support Pack
• Windows Mobile Device
• Zebra Mobile Printer
• Zebra Mono Spaced Font (ZMF204.CPF)
• Zebra Media

Although this is not required, it is recommended. Zebra Media has been extensively tested with Zebra printers.

Supported Printer Models

Zebra mobile printers are supported by SAP Mobile infrastructure V2.5. The printer drivers are part of the development environment. As of August 2008, the following printer models were supported:

• QL420
• RW420
• QL420 Plus
• Cameo 3

New printer model support will be added by SAP Support Packs. For the latest list of supported products visit http://www.sap.com.

Assumptions:

• SAP MI V2.5 software is installed, configured and running.
• The purpose of this document is to provide information to configure Zebra mobile printers for use with the SAP Mobile Infrastructure. It also covers the necessary SAP MI configuration with particular emphasis on the SAP DSD application.

Zebra Font

The ZMF204 font must be loaded on the printer before the output can be printed. To ensure that the ZMF204 is loaded in the printer please perform the sequence below.

Note • The procedure requires that Label Vista is loaded on a PC and the printer is connected to the PC.

1. Start Label Vista and ensure that the printer is selected.

2. Select Printer->Comm Port Setup.

3. Then select Printer->Read Files.

The screen below is displayed.
4. Check to see if ZMF204.CPF is listed. If it is listed, the font is loaded.

5. If the font is not listed, it must be loaded onto the printer.

6. Select Printer->Send File, the dialog below should be displayed.

7. Select the ZMF204.CPF font file and make sure that the “Store to flash file system” is checked.

8. Click Send.
How to configure Zebra Printers with Mobile Infrastructure

This section is intended to identify the key print-related configuration tasks for SAP Mobile Infrastructure V2.5. It is not intended to be a definitive guide to MI configuration in general, and users should refer to the MI documentation for a complete guide to setup.

There are several steps required to install and configure mobile printers. It is necessary to upload the drivers to the WebConsole/NetWeaver Administrator as well as the driver Connector. Both are necessary for the peripheral drivers to function correctly within SAP MI.

The peripheral drivers also require initial configuration before the driver will work correctly. For a Bluetooth Zebra printer, it is important to configure the address of the Bluetooth to which the device will print.

Review the composite CSS Note 761833. This note contains device information and links to all the release notes for supported drivers.
Overview of Steps

The steps to set up the system and the device will vary depending on the connection type of the printer.

Review Note 761833 (Delivered Drivers for Peripherals in SAP MI.) This note tells you where to find the drivers and also includes all of the release notes for any supported device This can be found on SAP Service Marketplace.

Device configuration can be carried out centrally via WebConsole or the NetWeaver Administrator, or directly on the device. Central configuration is recommended. If configuration changes are made on the device, it will not be possible to modify the configuration centrally in the future.
Step-By-Step Instructions

1. Review the related notes and upload the driver and connector
   a. Review Note 761833 – Delivered Drivers for Peripherals in SAP MI.

This note tells you where to find the drivers and also includes all of the release notes for any supported device. This can be found on SAP Service Marketplace.

This note also contains the release note for the supported drivers. In this example we will configure the Zebra RW420 printer, which is the PIPRZEBRW420 release note.
### Note 761833 - Delivered Drivers for Peripherals in SAP MI

**Note Language:** English  
**Version:** 23  
**Validity:** valid since 28.02.2008

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2. Review the required hardware and software section to ensure that the correct version of the driver is being used.

3. Download the appropriate driver for the current Mobile Infrastructure Support Pack as indicated in Note 761833.

4. Upload the driver and connector to the WebConsole or the NetWeaver Administrator as described in the installation guides.
5. After login in to the SAP NetWeaver Administrator go to Mobile Infrastructure (3) > Configuration Parameter Sets (1) and click Create (2).

6. The Create configuration parameter set (1) popup will appear.
7. Fill in the corresponding fields and click Create (2).

A new Configuration Parameter Set was created and will appear in the list.
8. In the Details for Selected Configuration Parameter Set (1) area, go to the Details (2) tab and click Edit (3).
9. From the **Parameter Set Type** (1) drop down list, select the **MI PIOS** (2) parameter.
10. Go to the **Parameters** tab (1) and click **Add** (2).

11. Enter the following values into the corresponding fields:
   b. Parameter Value (2): `00037a201c0d`
12. Click Save (3).

13. Repeat step 10 and step 11 for the following parameters:

- Parameter Name: `piprzebrw420.cfg.Bluetooth.PeerType`
- Parameter Value: Address
- Parameter Name: `piprzebrw420.cfg.Transport`
- Parameter Value: Bluetooth
- Parameter Name: `piprzebrw420.cfg.DriverParameters.FourInchesPaperLeftMargin`
- Parameter Value: 36
- Parameter Name: `piprzebrw420.fntcfg.Bitmapped.Encoding`
- Parameter Value: Cp437
- Parameter Name: `piprzebrw420.fntcfg.Bitmapped.FontName`
- Parameter Value: ZMF204.CPF
- Parameter Name: `piprzebrw420.fntcfg.Bitmapped.Height`
• Parameter Value: 22

14. Verify that the six parameters are on the parameters list.
15. Go to Mobile Infrastructure (1) > Device Configuration (2).
16. Click Create (1) in the Device Configuration main page (2), and fill in the Create Device Configuration popup fields (3). Press the Create popup button (4). A new device configuration was created and will appear in the Device Configuration list.

17. From the Details for Selected Device Configuration area (1), go to the Parameter Sets tab (2).
18. Click Add/Remove (3).

19. On the Search for Configuration Parameter Sets popup (1), enter the Configuration Parameter Set name (2).
20. Select the item from the **Available Parameter Sets** list (3) and click >> (4).
21. Make certain the item is in the **Assigned Parameter Sets** (1). Click **Save** (2).
22. Make certain the parameter set is the **Parameter Set** list (1).

**Note** • To determine the appropriate connector, refer to the SAP documentation.

23. From the **Details for Selected Device Configuration** area, go to the **Mobile Components** tab, and click Add/Remove.
24. Select the appropriate connector from the Available Mobile Components (1) and then click >> (2).

A confirmation dialog will appear.
25. Click No (1).
26. Make certain the connector is in the **Assigned Mobile Components** list (1).

27. Search for the Zebra RW420 driver add-on (1).

28. Select the driver add-on (2). (Please refer to SAP documentation to determine which version is applicable to your configuration.)
29. Click >> (3).
30. Make certain the connector add-on and the driver add-on are in the **Assigned Mobile Components** list (1). Click Save (2).
31. Make certain both add-ons (connector and driver) are in the **Mobile Components** list (1).

32. Synchronize from the mobile device client.

33. Get the **Mobile Device Name** from the mobile device client settings.

34. From the SAP NetWeaver Administrator, go to **Mobile Infrastructure (1) > Device Maintenance (2)**, and search for the mobile device.
35. Select the device from the **Result** list (3).
36. Go to the **Device Configuration** tab (1) and click **Add/Remove** (2).

37. From the **Assign/Remove Device Templates** (1), search for the **Device Configuration** created in step 10 (2).
38. Select the item from the **Available Device Configuration** list (3) and click » (4).
39. Make certain the item is on the **Assigned Device Configuration (1)** and click **Save (2)**.
40. Make certain the device configuration is on the **Device Configuration** list (1).

41. Synchronize from mobile device client to ensure that the installation was completed successfully.
42. Synchronize again from the mobile device client and check in the SAP NetWeaver Administrator>Mobile Infrastructure>Device Maintenance that the mobile components State (1) shows the following message: Deployment successfully completed (2).

The first time a mobile user tries to open a connection to the printer from a mobile application, a popup window will come up listing the available Bluetooth printers.
43. Select the name of the Zebra RW420 printer that you will be using.

Your device is not currently assigned to a Bluetooth printer. Please select one of the printers below:

Search Again...
AMSJUQA3
AMSJUPE16
AMSJUPE14
XSRCC05-09-5022
AMSJUACC3

☐ Do not display this window in the future

OK Cancel

Note • Not all devices on the list are necessarily printers
Conclusion

Zebra mobile printers and networking options provide a wide variety of printing solutions for both R/3 and SAP Netweaver platforms, meeting the needs of direct store delivery (DSD), and field service and mobile warehouse operations. Zebra’s printing technology can be used across many applications from shipping labels to service/warranty receipts. Businesses can improve productivity, gain greater visibility, shorten picking times and improve customer satisfaction.

References

- For additional information or support, please contact Zebra at http://support.zebra.com or (847) 913 2259.
- For additional information on the available SAP solutions, please visit: http://www.zebra.com/erp
- For information on Mobile Printing products please visit: http://www.zebra.com/id/zebra/na/en/index/products/printers/mobile.html
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