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## Appendix A Customer Support
ABOUT THIS GUIDE

This chapter is organized into the following sections:

- Using the Documentation
- Zebra Technologies Corporation ("Zebra") End-User Software License Agreement
Using the Documentation

The following sections provide information about the document and notational conventions used in the guides and provides a list of related documentation.

Document Conventions

The following conventions are used in this manual to draw your attention to important information:

- **NOTE:** Indicates tips or special requirements.

- **CAUTION:** Indicates conditions that can cause equipment damage or data loss.

- **WARNING!** Indicates a condition or procedure that could result in personal injury or equipment damage.

Revision History

This guide has the following release and revision milestone history:

<table>
<thead>
<tr>
<th>Release</th>
<th>Date</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0.0 Revision A</td>
<td>February, 2016</td>
<td>Release initial version of Android Toolbox Reference Guide</td>
</tr>
</tbody>
</table>
Notational Conventions

The following notational conventions are used in this document:

- Italics are used to highlight specific items in the general text and to identify chapters and sections in this and related documents
- Bullets (●) indicate:
  - lists of alternatives
  - lists of required steps that are not necessarily sequential
  - action items
- Sequential lists (those describing step-by-step procedures) appear as numbered lists

Related Documentation

MPact Location and Analytics documentation includes the following:

- **MPact Location & Analytics Deployment Guide**
- **MPact Location & Analytics Server Reference Guide**
- **MPact Location & Analytics Android Toolbox User Guide**
- **MPact Location & Analytics iOS Toolbox User Guide**
- **MPact Location & Analytics Client Software Development Kit**
- **MPact Location & Analytics Server API Reference Guide**
- **MPact Location & Analytics Hardware Installation Guide**
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- Identification
- Email address
- Payment
CHAPTER 1 MPACT TOOLBOX OVERVIEW

The MPact Toolbox Android application is designed for beacon installation and management. Administrators carry their Android within an MPact deployment area to install beacons and validate beacons are working as expected.

MPact Toolbox mediates MPact Server and MPact beacon exchanges. The Toolbox pulls configuration and firmware information from the MPact Server and allows the administrator to update beacons when necessary. The Toolbox records beacon placements and updates the Server continuously.

MPact Toolbox for Android is available from Google Play. Go to Google Play and search for MPact Toolbox.
1.1 Toolbox and Server Communication

Figure 1-1 illustrates communications between the MPact Toolbox, MPact Server, the client application and the MPact Server. The Toolbox requests the tree hierarchy, floor plans and beacon positions from the Server and updates the Server as changes are made on the Toolbox.

**Figure 1-1** MPact Toolbox and MPact Server Communications
A Toolbox equipped Android reads beacon installations from the Server, including beacon positions, IDs and other attributes. Users can add or delete beacons (not beacon positions) on a site’s floor plan using the Toolbox.

For more information, refer to the following:

- **MPact Toolbox Installation and Login**
- **To exit the Toolbox, select Sign Out from the left-hand navigation panel.**
2.1 MPact Toolbox Installation and Login

The MPact Toolbox runs on the Android 4.4 - 5.1. The MPact Toolbox is only supported on Nexus 9 devices. The Android Toolbox supports three MPact beaconing modes (Battery Save, SecureCast and MPact).

After downloading the Toolbox from Google Play, upload the Toolbox application to an Android application server. Authorized individuals can download to Android client devices using the URL link to the server.

2.1.1 Toolbox Login

Prior to logging into the Toolbox, the MPact Server must be installed, configured and setup with an active site. For more information, refer to the MPact Location & Analytics Server Reference Guide available at https://zebra.com/support.

For information about Toolbox Settings defining MPact Server connection settings, network options, Toolbox display, beacon mode, scanning mode, UUID and log debug file settings, refer to Chapter 6, Toolbox Settings.

When initially logging into the Toolbox, Server configurations are pushed to the Toolbox, including site hierarchies, floor plans, beacon positions and other attributes. This process take several minutes and is based on network connectivity and the scale of the deployment.
To login into MPact Toolbox:

1. Select **MPact Toolbox** on your Android.

   ![Figure 2-1 MPact Client Toolbox (Android) - Login](image)

   **NOTE:** Before logging into the MPact Toolbox, provide the numeric Server IP address and port used for communication with the Toolbox. See Chapter 6, **Toolbox Settings**.

   A screen displays prompting for user name, password and the Server port for data transfers between an MPact beacon and the MPact Server.

2. Enter the same **Username** and **Password** created on the MPact Server (must be the same as the Server).

3. Select **Login**.

   **NOTE:** Ensure the Android device has network connectivity to the MPact Server by either Wi-Fi or cellular network.

The **Home** page displays upon logging in to the Toolbox.
4. Select the appropriate icon that represents the intended Toolbox activity.

<table>
<thead>
<tr>
<th>Installation</th>
<th>Displays a site map containing building and floor images. Individual floors can be administrated for specific beacon deployment activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>Sets the beacon’s configuration.</td>
</tr>
<tr>
<td>Upgrade</td>
<td>Launches a utility for upgrading beacon firmware.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Validates the operation and functionality of installed beacons.</td>
</tr>
<tr>
<td>Settings</td>
<td>Administrates the connection settings between the handheld device and the MPact Server.</td>
</tr>
<tr>
<td>Signout</td>
<td>Exits the Toolbox and MPact Server.</td>
</tr>
</tbody>
</table>

5. To exit the Toolbox, select **Sign Out** from the left-hand navigation panel.
2.2 Beacon Installation

Select Installation to install beacons in pre-defined positions. Beacon positions must be located on a site’s floor plan in the MPact Server prior to installing beacon positions in the Toolbox. For more information, refer to the MPact Location & Analytics Server Reference Guide available at www.zebra.com/support.

![Figure 2-3 MPact Toolbox Home Page](image)

**NOTE:** The installation example is for Battery Save Mode. For more information about installing beacons in iBeacon, MPact and SecureCast modes, refer to the MPact Location & Analytics Server Deployment Guide available at www.zebra.com/support.

To install an MPact beacon:

1. Select Installation on the Toolbox Home page.
2. From the Site Hierarchy screen, select > to the left of a site name to expand the site and list its supporting floor plans.

3. Navigate to a floor plan.

   The floor plan is pushed from the Server and displayed in the Toolbox. The beacon or Wi-Fi positions created on the Server display on the floor plan, along with their status. The status of the positions displayed in Figure 2-5 are unassigned.
4. Refer to the following beacon position status icons:

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty</td>
<td>Defines an installed beacon in an inactive state. The beacon is not yet activated or transmitting.</td>
</tr>
<tr>
<td>Gray</td>
<td>Represents a position with a beacon installed that is inactive; the beacon is not activated or transmitting.</td>
</tr>
<tr>
<td>Green</td>
<td>Indicates the beacon is active and transmitting with a remaining battery life between 40% ≤ 100%.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Indicates the remaining beacon battery life is between 20% ≤ 40%. The administrator should be planning to replace this beacon battery soon.</td>
</tr>
<tr>
<td>Red</td>
<td>Indicates the remaining beacon battery life is between 0% ≤ 20%. The administrator should be planning to replace this beacon battery soon.</td>
</tr>
</tbody>
</table>

5. Cursor over any position on the floor plan to display beacon specific information (optional).

When an unassigned position is selected, the position popup displays the position’s name, description, status and mapped categories. The scan barcode button associates a beacon’s barcode to a beacon position from the Server.

6. Select an unassigned position (empty circle on the floor plan) by touching the position on the Android device.

7. Ensure a beacon’s barcode (present on the outside of all beacon models except MPACT-MB3000-01-WR) is right side up before scanning its barcode. Scanning associates the beacon with an unassigned position to provide mapping for the beacon.

**NOTE:** Please refer to the MPact Location & Analytics Hardware Installation Guide for the beacon model numbers, SKUs and operating modes. The guide is available at [www.zebra.com/support](http://www.zebra.com/support).
8. Aim the Android's camera within 3-4 inches of the beacon's barcode and focus the camera on the barcode until the green outline displays around the barcode, as displayed in Figure 2-7, Figure 2-8 and Figure 2-9.

![Figure 2-7 MPact Toolbox - MPACT-T1B10-000-WR Beacon Barcode](image1)

![Figure 2-8 MPact Toolbox - MPACT-MB2000-01-WR Beacon Barcode](image2)

![Figure 2-9 MPact Toolbox - MPACT-MB4000-01-WR Beacon Barcode](image3)

9. When the image is appropriately focused, select **Done**.

   When the beacon is successfully scanned, the **Beacon Scanned** popup displays the beacon’s name and MAC address.

![Figure 2-10 MPact Toolbox - Beacon Scanned](image4)

**NOTE:** The Toolbox default setting is **Barcode**. However, if the printed barcode font is too small to scan, change the **Scan Mode to picture** instead. For more information, see **Toolbox Settings**.

10. Select **Save** to commit the beacon's placement on the Toolbox and Server. To cancel the installation, select **X** at the top, right-hand, side of the popup or simply tap any area outside of the popup.
11. Follow the remaining steps or change the order of operations by activating (pulling off the mylar strip) and scanning the beacons into the system before installing them in the field.

**NOTE:** If beacon *Positions* have been pre-configured on the Server with the beacon’s MAC address, be sure to select the proper beacon with the correct MAC that matches what is displayed on the beacon installation popup display.

Within twenty seconds, the beacon connects to the Toolbox.

*Figure 2-11* shows a gray position, indicating a beacon is installed in an inactive state.

**Figure 2-11**  *Pact Toolbox - Successful Beacon Installation*

12. Pull the mylar strip from the beacon to begin transmitting a signal to the Android for a connection (this step is on applicable for: SKUs MPACT-MB2000-01-WR, MPACT-T1B10-000-WR and MPACT-T1B10-000-WR).

*Figure 2-12*  *Beacon Mylar Strip - SKUs MPACT-MB2000-01-WR, MPACT-T1B10-000-WR and MPACT-T1B10-000-WR*

The beacon remains in connect mode up to 20 seconds, scanning for the Android device. When the Android device recognizes the beacon’s BLE signal, the beacon’s state changes to *Active*, and the beacon’s icon changes to green (as displayed in *Figure 2-13*). When the beacon connects to the Android, it changes to transmit mode, transmitting to client devices on the floor. The blue dot (flashing) represents the Toolbox user’s client device.

*Figure 2-13*  *Installed Beacon Activation*
2.2.1 Beacon Deletion

Deleting a beacon from a floor plan removes only the beacon and leaves the beacon’s position in place. Beacon positions can only be deleted from the Server.

To delete a beacon:
1. Tap the beacon to delete.
2. Select Delete Beacon when the popup displays.
3.1 Beacon Maintenance

Use Toolbox **Maintenance** options to periodically verify the state (functionality) of a beacon. With the Toolbox open, administrators walk amongst installed beacons and verify the state of each beacon. Beacons turn green to indicate they’re active. Customers appear as blue dots moving amongst the aisles.

**NOTE:** Beacons must be in *beaconing* mode to be configurable. Not in beaconing mode, the Toolbox does not recognize the beacon and it does not display in the Toolbox. In this case, the position displays as empty, even though a beacon might be in the correct physical location. Reboot the beacon by removing, then, reinserting the beacon’s battery, resetting the beacon to connect mode. Once re-connected, it displays properly in the Toolbox to determine maintenance needs.

To verify beacon states:

1. Select **Maintenance** on the Toolbox home page.
2. Select the **Clear Beacon State** eraser located at the to right-hand side of the Action Bar.
   
   **A Clear Beacon State** warning displays. The warning prompts whether to place each beacon in an inactive state within the handheld device.

**NOTE:** Placing a beacon in an inactive state does not impact the beacon states within the MPact Server.

3. Select **Yes** to remove beacons from an inactive state for active beacon administration. Select **No** to keep the beacons in their current states.

   When **Yes** is selected and a floor is selected in maintenance mode, the Toolbox displays a snapshot of the floor plan and the status of all the beacons on the floor. No further updates to the floor plan or beacons are received from the MPact Server after this point. This is illustrated by adding a beacon to the floor plan after entering Maintenance mode. The new beacon does not display on the floor plan until an action is initiated, resulting in the floor plan data being reloaded.

   Actions to update status include:
   - Selecting **Refresh** on the Toolbox.
   - Selecting the **i** toggles the Beacon ID.
The Clear Beacon State button only sets beacons to their inactive state on the Toolbox; it does not affect the state on the MPact Server. The tags remain grey in the Toolbox until either:

- A beacon is detected.
- The beacon status is reloaded from the MPact Server
- Once cleared and rendered inactive, each beacon displays gray on the Toolbox. Beacon states are cleared only in the Toolbox, not in the MPact Server.

Figure 3-1 Beacon State Clearance
Once the Toolbox detects a beacon, the corresponding beacon state displays as active (green) once again. The user inspecting the beacon displays as a flashing blue dot, as displayed in Figure 3-2.
4.1 Beacon Firmware Upgrades

Use the Toolbox to upgrade as many as seven beacons in one upgrade session. When an upgrade operation is initiated from the Toolbox, the beacon upgrades are sequential, with one beacon upgraded at a time. Beacon firmware must first be installed on the MPact Server.

To upgrade beacon firmware:

1. Select the Upgrade icon from the Toolbox home page.

Figure 4-1  Beacon Firmware Upgrades
The **Over the Air Upgrade** screen lists deployed beacons whose firmware can be provisioned using the Toolbox.

**NOTE:** Only **connectable** beacons can be selected from the **Over the Air Upgrade** screen. Otherwise, the beacon's **Select** option is grayed out and unavailable. Reboot a beacon to bring it to the connectable state required for an upgrade. Reboot the beacon by removing, then reinserting the beacon's battery, resetting the beacon to connect mode to display in the Toolbox. Reboot Android device after the configuration or upgrade of seven beacons.

2. Refer to the following to determine whether a listed beacon should be included in an upgrade operation:

<table>
<thead>
<tr>
<th><strong>Select</strong></th>
<th>Select either <strong>Yes</strong> or <strong>No</strong> to include a beacon in a firmware operation. As many as 7 beacons can be included in a single upgrade operation. When an upgrade operation is initiated from the Toolbox, the beacon upgrades are initiated sequentially, with one beacon being upgraded at a time.</th>
</tr>
</thead>
</table>
| **Action** | Lists the pending configuration action administrated for each listed beacon. Actions include:  
  - **None**: No update set for the beacon.  
  - **Pending**: An update is set and can be tracked using the progress bar.  
  - **Completed**: A successful update has been made or an unsuccessful update has failed. |
| **Beacon Name** | Lists each beacon’s last three bytes of its MAC address. |
| **Primary** | The image the beacon is currently running. |
| **Secondary** | The backup image available upon the failure of the primary image. |
| **Available A** | Lists firmware image A, that can be pushed to a beacon pending an upgrade. If the MPact Server is properly configured, the Toolbox downloads the firmware from the Server. |
| **Available B** | Lists the firmware image B, that can be pushed to a beacon pending an upgrade. If the MPact Server is properly configured, the Toolbox downloads the firmware from the Server. |
| **Status** | Lists the current operational status of each listed beacon, in respect to the beacon’s ability to either receive an update or become operational once receiving update. The following statuses are available:  
  - **Found**: The beacon is emitting a BLE signal, but not in a connectable state.  
  - **Connected**: The beacon is connected with the device.  
  - **Ready**: The listed beacon is ready for an upgrade now.  
  - **Disconnected**: The beacon is disconnected from the device. The beacon requires rebooting to activate. |
3. Refer to the following to select actions:

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select All</td>
<td>Readies each listed beacon for an upgrade to the version listed in the <em>Available Firmware</em> column.</td>
</tr>
<tr>
<td>Deselect All</td>
<td>Reverts each selected beacon back to an unselected state.</td>
</tr>
<tr>
<td>Upgrade</td>
<td>Upgrades selected beacons. Beacon updates take approximately 20 seconds each and are conducted sequentially, with no two beacons upgrading at the same time.</td>
</tr>
<tr>
<td>Stop</td>
<td>Halts an in-process upgrade operation. When stopping an upgrade operation, each beacon selected and in the queue, is stopped, not just the beacon currently upgrading. Each beacon is applied a status of <em>Failed.</em></td>
</tr>
<tr>
<td>Reset</td>
<td>Reverts the page back to its original state before any single beacon was queued for an upgrade.</td>
</tr>
</tbody>
</table>

4. Reboot beacons by opening their housing, removing the battery, then reinserting the battery in the beacon housing to make it available for activation. For more information on opening and closing the battery housing, refer to the *MPact Location & Analytics Deployment Guide,* available at [https://zebra.com/support](https://zebra.com/support).

5. After upgrading the firmware, if difficulty is encountered after more than seven beacons are changed, reboot the mobile device.
CHAPTER 5 BEACON CONFIGURATION

5.1 Beacon Configuration

Use Configuration to globally update beacon configurations in the Toolbox. All beacon configurations are received from the MPact Server, including beacon power, channel, interval and mode. All beacons must be in the same beacon mode (Battery Save, SecureCast and iBeacon or MPact) on both the Server and the Toolbox. Beacons must be in connect mode to appear in the Toolbox.

To update beacon configurations:

1. Select Configuration on the Toolbox home page.

![Figure 5-1 Beacon Over the Air Configuration](image)
2. Refer to the following to determine whether a listed beacon should be included in a configuration update:

<table>
<thead>
<tr>
<th>Select</th>
<th>Select either Yes or No to include a beacon in a configuration update. As many as 7 beacons can be included in a single update operation. When an update is initiated from the Toolbox, the updates are initiated sequentially, with one beacon update at a time.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Lists the pending configuration action for each listed beacon. Actions include:</td>
</tr>
<tr>
<td></td>
<td>• None: No update has been set for the beacon.</td>
</tr>
<tr>
<td></td>
<td>• Pending: An update has been set and can be tracked using the progress bar.</td>
</tr>
<tr>
<td></td>
<td>• Completed: Updates are successful.</td>
</tr>
<tr>
<td>Beacon Name</td>
<td>Lists each beacon's numeric ID assigned uniquely to each beacon upon Toolbox installation.</td>
</tr>
<tr>
<td>Beacon Power</td>
<td>Lists each beacon's output power from -23 to 0 dBm. Use this data on a per beacon basis to determine whether specific beacon power levels require an increase.</td>
</tr>
<tr>
<td>Beacon Channel</td>
<td>Lists a channel from 1-7 (7 is the default) to apply an operation channel restriction to beacon transmissions. This is helpful in areas where beacon deployments are abundant, as beacons can be strategically grouped to specific channels to reduce excess interference.</td>
</tr>
<tr>
<td></td>
<td>Channel broadcast options:</td>
</tr>
<tr>
<td></td>
<td>1: Channel 39</td>
</tr>
<tr>
<td></td>
<td>2: Channel 38</td>
</tr>
<tr>
<td></td>
<td>3: Channel 38, 39</td>
</tr>
<tr>
<td></td>
<td>4: Channel 37</td>
</tr>
<tr>
<td></td>
<td>5: Channel 37, 39</td>
</tr>
<tr>
<td></td>
<td>6: Channel 37, 38</td>
</tr>
<tr>
<td></td>
<td>7: Channel 37, 38, 39</td>
</tr>
<tr>
<td>Beacon Interval</td>
<td>Defines an interval (from 0.1 sec to 10 sec) for a beacon transmission. The shorter the interval, the shorter the beacon’s battery life. However, shorter intervals result in increased accuracy. The default setting is 0.6 sec.</td>
</tr>
</tbody>
</table>
### Beacon Mode
Sets the mode defining how signals are emitted from MPact beacons. Supported modes include **Battery Save**, **SecureCast**, **iBeacon**, **MPact** (default setting). Refer to the [MPact Location & Analytics Deployment Guide](https://zebra.com/support) for information on installing a beacon. The guide is available at: [https://zebra.com/support](https://zebra.com/support).

**Battery Save**: Optimized for battery life by making the broadcast packet as small as possible (the beacon contains the minimal amount of information needed to support MPact Server functions). An MPact beacon contains the power-save mode beacon, beacon ID and a single byte representing the percentage of battery life remaining (0-100).

**SecureCast**: Is a method of broadcasting encrypted (using an Advanced Encryption Standard Key) signals over Bluetooth for organizations that utilize fraud protection to tie beacon signals to verified presence detection. SecureCast ensures beacons do not display identifiers (MAC address) and are constantly rotating and changing.

**iBeacon**: Created by Apple for use in iOS devices (beginning with iOS version 7.0). There are three data fields Apple has made available to iOS applications, a **UUID** for device identification, a **Major** value for device class and a **Minor** value for more refined information like product category. The UUID must be the same on the beacon and the Server. The Major field identifies the device class (range, 0-65535). For example, the Major value could be the same for each device on the first floor or a particular department store. The Minor field is for more refined information (range, 0-65535), like product category. Beacons configured in iBeacon mode use a combination of Major and Minor values for the beacon ID. After scanning and installing the beacons in the Toolbox, beacon configuration must be reapplied (pushed from the Server) using the Toolbox (Configuration) to associate the Major and Minor values from the Server.

**MPact**: Uses the iBeacon format. The Major and Minor fields need to be configured so the MPact data is compatible with the MPact Server. The last byte of Minor is used for battery life broadcasting.

### UUID
Set in the Server if iBeacon or MPact is selected. Enter a 16 byte hex character string that defines the purpose of the device. The UUID must be the same on the beacon and the Server. A UUID is represented by 36 characters (32 alphanumeric characters and four hyphens), for example, 123a4567-e23b-89d3-a234-135790864215.

The **Universally Unique Identifier** (UUID) classification is meant to be broad. For example, a UUID could identify a beacon was owned by a specific company. To generate a UUID, use any GUID/UUID generation tool to create a unique identifier. For example, the uuidgen command in OS X. The uuidgen command generates a UUID, which is a 128-bit value guaranteed to be unique.

### Major
Set from 0 - 65535 in the Server. The Major field identifies the device class. For example, the Major value could be the same for each device on the first floor of a particular department store.

### Minor
Set from 0 - 65535 in the Server. In iBeacon mode, the Minor field is a field for more refined information, like product category.
Status

Lists the current operational status of each listed beacon, in respect to the beacon’s ability to either receive an update or become operational once having received a configuration update. The following statuses are available:

- **Found**: The beacon is emitting a BLE signal, but not in a connectable state.
- **Connected**: The beacon is connected with the device.
- **Ready**: The listed beacon is ready for configuration.
- **Disconnected**: The beacon is disconnected from the device. The beacon requires rebooting to activate.

3. Refer to the following configurable option:

| Select All | Reads each listed beacon for an upgrade to the version listed in the *Available Firmware* column. |
| Deselect All | Reverts each selected beacon back to an unselected state. |
| Configure | Updates selected beacon configurations. Configuration updates take approximately 20 seconds each and are conducted sequentially, with no two beacons updating at the same time. |
| Stop | Halts an in-process configuration operation. When stopping an update operation, each beacon selected and in the queue is stopped, not just the beacon currently updating. Each beacon is applied a status of *Failed*. |
| Reset | Reverts the page back to its original state before any single beacon was queued for a configuration update. |
| Reboot | Reboots the beacon. |
Upon a successful update, beacons automatically reboot and are available for activation.

<table>
<thead>
<tr>
<th>Select</th>
<th>Action</th>
<th>Name</th>
<th>Power</th>
<th>Channel</th>
<th>Interval</th>
<th>Mode</th>
<th>UUID</th>
<th>Major</th>
<th>Minor</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>Successful</td>
<td>47EA12</td>
<td>-23</td>
<td>0</td>
<td>0.6</td>
<td>MPact</td>
<td>B272996-7DA111E3-945E0D231-369B1062</td>
<td>0059</td>
<td>1035</td>
<td>Rebooted</td>
</tr>
<tr>
<td>NO</td>
<td>Successful</td>
<td>4881B3</td>
<td>-13</td>
<td>7</td>
<td>0.3</td>
<td>Battery Save</td>
<td>45CA5A60-F73A11E3-A92C8B0-200C8A68</td>
<td>0059</td>
<td>1035</td>
<td>Rebooted</td>
</tr>
<tr>
<td>NO</td>
<td>Successful</td>
<td>4876DC</td>
<td>-13</td>
<td>7</td>
<td>0.3</td>
<td>Battery Save</td>
<td>45CA5A60-F73A11E3-A92C8B0-200C8A68</td>
<td>0059</td>
<td>1035</td>
<td>Rebooted</td>
</tr>
<tr>
<td>NO</td>
<td>Successful</td>
<td>47ED99</td>
<td>-13</td>
<td>7</td>
<td>0.3</td>
<td>Battery Save</td>
<td>45CA5A60-F73A11E3-A92C8B0-200C8A68</td>
<td>0059</td>
<td>1035</td>
<td>Rebooted</td>
</tr>
<tr>
<td>NO</td>
<td>Successful</td>
<td>47EB2F</td>
<td>-13</td>
<td>7</td>
<td>0.3</td>
<td>Battery Save</td>
<td>45CA5A60-F73A11E3-A92C8B0-200C8A68</td>
<td>0059</td>
<td>1035</td>
<td>Rebooted</td>
</tr>
</tbody>
</table>

*Figure 5-2 Updated Beacon Configuration*
6.1 Toolbox Settings

**Toolbox Settings** define MPact Server connection settings, network options, Toolbox display, beacon mode, scanning mode, UUID and log debug file settings.

To configure Toolbox settings:

1. Select **Settings** on the Toolbox home page.

![Figure 6-1 Settings Screen](image-url)
2. Refer to the **Server Option** field to set MPact Server connection values:

<table>
<thead>
<tr>
<th><strong>IP Address</strong></th>
<th>Enter the numeric IP address or domain name of the MPact Server used to administrate the MPact system using, in part, the values set within the Toolbox application.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IP Port</strong></td>
<td>Enter the virtual port number used for connection to the MPact Server. The default port setting is 80.</td>
</tr>
<tr>
<td><strong>Connection Protocol</strong></td>
<td>Set the MPact Server connection method as either <strong>HTTP</strong> or <strong>HTTPS</strong>. Both <strong>HTTP</strong> and <strong>HTTPS</strong> use the same <strong>Uniform Resource Identifier (URI)</strong>, so requesters can be identified. However, <strong>HTTPS</strong> is recommended, as it affords transmissions some measure of data protection <strong>HTTP</strong> cannot provide.</td>
</tr>
</tbody>
</table>

3. Refer to the **Network Option** field to set network connection values:

| **Proxy Address** | Defines IP address or FQDN name of the proxy server. Use Proxy Settings to connect to an outside server when inside the proxy. Without this option, a switch must be made. |
| **Proxy Port**    | Defines the Proxy server port. |

4. Set the following **Beacon Options** for the beacon’s firmware and set the UUID:

| **Beacon Mode** | Lists the mode defining how signals are transmitted from MPact beacons. Supported **Battery Save** format, is optimized for battery life by making the beacon as small as possible (the beacon contains the minimal amount of information needed to support MPact Server functionality). An MPact beacon contains the registered manufacturing ID, beacon ID and a single byte representing the percentage of battery life remaining (0-100). **MPact** format, the default setting, uses the iBeacon format and provides battery life information. However, the Major and Minor fields have been defined so MPact data can be conveyed as being compatible with MPact Server. No input is required. |
| **UUID**        | If a beacon is set to either **iBeacon** or **MPact** mode, this column lists the 16 byte hex character UUID string defining the device. Beacons set to MPact mode do not require a UUID. If used, the UUID must be the same on the beacon and the Server. |

5. Save the updates to commit them to the Toolbox.
If you have a problem with your equipment, contact Support for your region. Support and issue resolution is provided for products under warranty or that are covered by a services agreement. Contact information and Web self-service is available by visiting www.zebra.com/support.

When contacting Support, please provide the following information:

- **MAC ID of the unit**
- **Model number or product name**
- **Software type and version number**

Support responds to calls by email or telephone within the time limits set forth in support agreements. If you purchased your product from a business partner, contact that business partner for support.

**Customer Support Web Site**

The support site, located at www.zebra.com/support provides information and online assistance including developer tools, software downloads, product manuals, support contact information and online repair requests.

**Manuals**

To see manuals, go to: www.zebra.com/support.