Configuring Jabra Perform or BlueParrott (JPBP) Headsets for use in Enterprise Environments

Introduction

This document outlines how to optimize JPBP Headsets for mobile workers to use in an enterprise environment and the following pages cover in detail the scenarios and steps required to assure a successful rollout and implementation from a product behavior perspective.

JPBP headsets come out of the box in **Individual Use Mode** which assumes that the headset will be used daily with the same handset or cellphone. In this default state, when the headset is powered on, it will look for, and connect to the last device it was paired to. If the environment you are deploying in will have headsets and handsets that are going to be used by the same user everyday, then the default configuration state of Individual Use Mode is recommended, however, if the environment will use devices that will be shared among users, please review the options outlined to determine which works best for the environment and size of deployment.

There are three main methods for enabling the use of JPBP headsets in an enterprise environment where devices are going to be shared.

1. ***Shared Device Mode*:** In deployments where shift workers will share devices (headsets, handsets or both), requiring headsets to be easily paired with different handsets on a frequent basis. The OneTouch Configuration App is used to configure headsets for Shared Device Mode.

2. ***Customization:*** The specific behavior of the headset can be tailored to meet the needs of specific users and environments, necessitating customization. The Customizable Button, Multi Function Button (MFB) and other features can be configured individually or in combinations using either the OneTouch Configuration App or with the JPBP SDK.

3. ***Application Provisioned:*** In some cases, the application that you interface with may have the ability to select or configure JPBP headsets. Please review with the SW company you are planning on interfacing your JPBP headset with.

These three options are outlined in detail in the following pages. If you are unsure at this stage what type of environment you will need, it might be useful to review sections 4 and 5 as they provide examples of both the user journey and recommended workflows.

1. Shared Device Mode

Shared Device Mode allows for easy pairing of headsets to different handsets to facilitate shift work. This covers the following scenarios:

- Shared Handsets: Where workers share a pool of handsets, but each has their own dedicated Headset
- Shared Headsets: Where workers share a pool of headsets, but each has their own dedicated Handset (e.g., BYOD)
- Sharing Both (Shared Handset and Headset): Where workers get a different handset, and a different headset for each shift

Configuring the headset for Shared Device Mode allows for easy pairing of headsets with different handsets by different workers on different shifts. When Shared Device mode is configured, the headset will clear its pairing list every time it is put into pair mode or paired via NFC.

Shared Device Mode is comprised of the following configuration:

- **Single Pairing:** Allows the headset to only store one (1) Bluetooth address at a time
- **Disable Establish SLC[1]:** Event when MFB is pressed or the headset is turned on, disabling this option will prevent reconnecting to a previously paired handset
- **Enumeration:** adds a unique 4 digit alphanumeric identifier to the friendly name listed in the BT menu of the device attempting to connect the headset to
- **Enable SDK Mode**: Configures the customizable button for interfacing with an SDK enabled application

The easiest way to configure a headset into Shared Device Mode is to use the OneTouch Configuration App, available at this **link**.

☐ The OneTouch Configuration App is only available on Android, but can configure devices that will be used with, or exclusively on iOS.

The configuration for Shared Device Mode can also be set using the JPBP SDK from within an application.

⚠ In the case that the deployed handset has a JPBP SDK enabled, if that application sets headset keys will override settings from the OneTouch Configuration App.

Typical usage scenarios / work flows can be referenced in Section 5 of this document.

2. Individual Feature Customization

Headsets can be configured to change the behavior of the headset in a number of ways including:

- **Disable MFB for call control:** (e.g., Call Answer, Call End), useful when headset is only used in a PTT or Voice Directed Picking environment
- **Disable Establish SLC[1]:** Event when MFB is pressed or the headset is turned on, disabling this option will prevent reconnecting to a previously paired handset
- **Single Pairing:** Allows the headset to only store one (1) Bluetooth address at a time
- **Receiver Soft Mute:** (Volume level 0) (B450-XT, C300-XT only)
- **Receiver Hard Mute:** (Full audio disconnect) (B450-XT, C300-XT only)
- **Enumeration:** adds a unique 4 digit alphanumeric identifier to the friendly name listed in the BT menu of the device attempting to connect the headset to
- **Enable Configurable MFB:** (Future)
- **Disable BLE**: (Android deployments only)

[1] HFP profile connection requires RFCOMM connection first and then a Service Level Connection (SLC) on top of RFCOMM. HFP profile is only considered fully connected when SLC is established

Setting these features is typically a once-off task and we recommend setting them using the OneTouch Configuration App, available at this **link**.

☐ The OneTouch Configuration App is only available on Android, but can configure devices that will be used with, or exclusively on iOS.

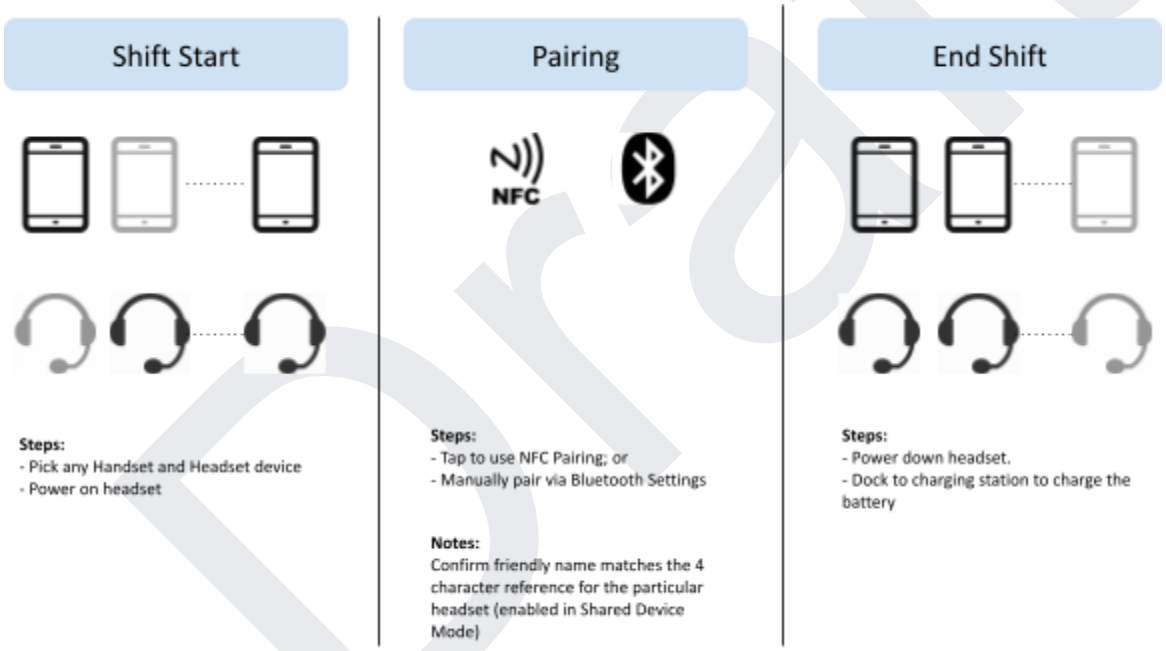
If you are developing your own SW solution, it is also possible to set (or change) these features, from within an SDK enabled application by changing relevant configuration settings using the JPBP SDK. Note, however, that changing some of these settings may require a headset reboot, so it is not recommended to set them dynamically from within your app. This process is covered in more detail described in the documentation here. Further, the JPBP SDK can be integrated into your mobile application or service to easily intercept and handle Customizable Button and other events generated by the headset. This is described in detail in the SDK Documentation, and several sample applications showing how to connect to the SDK and react to button events are provided here.

3. Application Provisioned

With certain partners, they have chosen to offer a selection of specific features of the SDK provisioning to the SW client, allowing for device provisioning directly through the application. Example: Microsoft Teams can configure a number of keys through your Tenant, to determine the proper configuration requirements and to enable these, you need to work with your Microsoft Partner.

4. User Journey

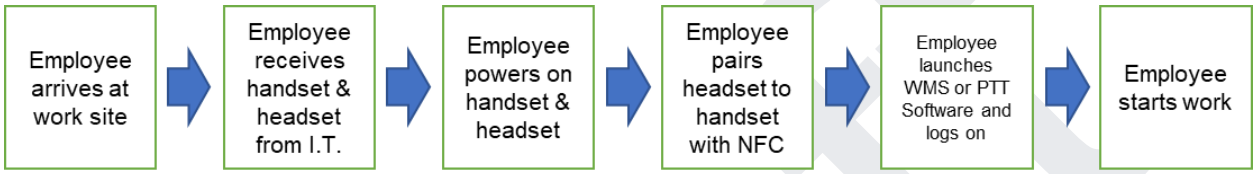
Below is a general overview of the user journey when using JPBP headsets in an enterprise space.



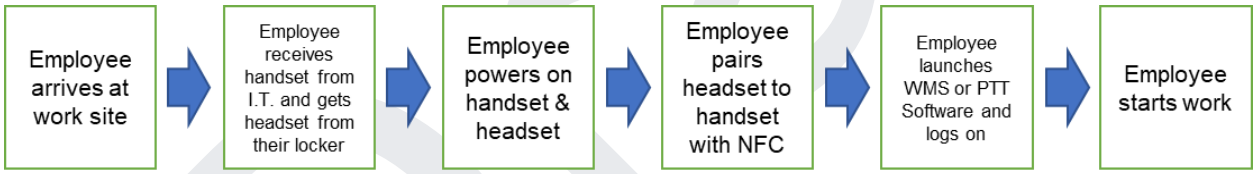
5. Workflows

Below is a general overview of differing workflows and the recommended device configuration for that environment.

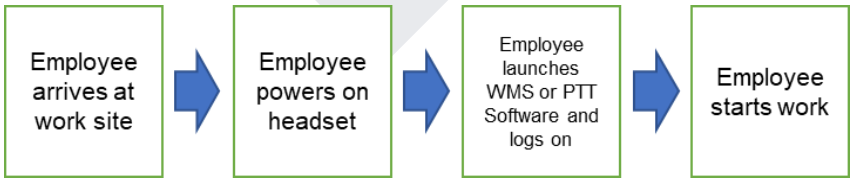
Example #1:
Workflow for an environment where the handset and headset are shared. In this scenario, the handset and the headset need to be paired every shift. For this application, we recommend using the headset in Shared Device Mode.



Example #2:
Workflow for an environment where the handset is shared and the headset is individually owned. In this scenario, the handset and the headset need to be paired every shift. For this application, we recommend using the headset in Shared Device Mode.



Example #3:
Workflow for an environment where the handset and the headset is personally owned/used by only one individual. Within this context, the handset and the headset are paired initially and will remain paired through the lifespan of the hardware. For this application, we recommend using the headset in Individual (default) Mode .



Appendix A - Example Shared Device Scenario

Tasks required to setup JPBP Headsets in a Shared Device Scenario

When	Who	How	Tasks
Once-Off Configuration	Typically carried out by IT/Deployment team	OneTouch Configuration App	Install and run the OneTouch Configuration app on a single smart device (Android). For each headset to be configured: ● Power on and Pair the Headset ● Select 'Shared Device mode' (and any other configuration options required) and press the 'Configure headset' button ● Note the 4 character Headset Reference displayed in the OneTouch App and label the headset with this reference - this will assist users to pair the correct headset later ● Power down the headset See OneTouch Configuration App Documentation (add link) for more details
Once-Off App Development	Typically carried out by Mobile App Developers	JPBP (iOS/Android) SDK	Add code to your app which will use the SDK to: ● Listen for headset connection events and connect to the JPBP SDK ● If required, make further dynamic customisation to the headset (for example, changing headset mode between Mute and PTT for different parts of your app) ● Handle headset events (for example, button Press, proximity events) See SDK Reference documentation and Sample applications can be found here.

Appendix B - Taxonomy & Explanation

Explanation of terms used through the document and related materials from Jabra.

AT Commands are events sent over the classic Bluetooth connection using SPP and is the preferred method for customizable button events on Android due to reliability and predictability. AT commands cannot be used on iOS.

BLE or Bluetooth Low Energy is a Bluetooth connection from the headset to the handset. BLE is necessitated on iOS for capturing customizable button events. While BLE is present on Android, is not the recommended method for capturing customizable button events, rather AT commands over SPP is preferred due to reliability and predictability.

Carrier refers to the 5G/4G network supplier, also refers to push to talk services supplied by the carrier (i.e. AT&T Advanced PTT). These PTT solutions are provided by Motorola Solutions (formerly Kodiak)

Customizable Button or BlueParrott Button is the programmable button found on the JPBP headset, typically used to activate PTT. This is programed via a compatible application or through SDK integration.

Disable BLE: A feature of the SDK, allowing a developer to disable BLE broadcasting in environments that are Android only (do not use iOS).

Disable Establish SLC[1]: Event when MFB is pressed or the headset is turned on, disabling this option will prevent reconnecting to a previously paired handset

Disable MFB for call control: (e.g., Call Answer, Call End), useful when headset is only used in a PTT or Voice Directed Picking environment where HFP events have been shown to affect performance with Voice Directed Picking systems.

Enable Configurable MFB: A feature of the SDK, allowing a developer to reconfigure the MFB button commands. Currently unavailable, will be released in the future.

Enumeration: A feature configured through one-touch or SDK that adds a unique 4-digit alphanumeric identifier to the friendly name listed in the BT menu of the device attempting to connect the headset to.

Friendly Name: The listed name of the headset found in the Bluetooth pairing menu on a handset or cellphone.

Individual Mode: The default connectivity mode for JPBP headsets, allowing for up to 2 devices to be connected at the same time (multipoint) and for the headset to store up to 8 Bluetooth addresses.

JPBP: Acronym used throughout referring to Jabra Perform & BlueParrott headsets.

JPBP SDK: An Android or iOS library that enables developers to capture button commands from the customizable button and configure for specific features for the application or environment.

MFB: Acronym for Multi-Function Button, the main power and call answer/end button on JPBP headsets.

Mixed Use Environment: A location or environment that uses a mix of Android and iOS devices.

NFC or Near Field Communication is a method that enables a “tap to pair” for easy pairing of the headset to a handset that has enabled NFC.

OneTouch App: An Android application provided as an APK that enables organizations looking to deploy headsets a method to provision specific features for the application or environment.

Provisioning: The act of configuring specific features on the headset ahead tailoring it for the intended environment.

Reboot: Actively or passively restarting the headset.

Receiver Hard Mute: The ability on select models (B450-XT, C300-XT) to eliminate the incoming audio of the receiver (speaker) by holding “volume –“ for 2 seconds. Useful in PTT environments where an agent may need to remove themselves from the PTT channel w/o having to take the headset off (i.e. speaking with a customer).

Receiver Soft Mute: The ability on select models (B450-XT, C300-XT) to reduce the incoming volume of the receiver (speaker) by holding “volume –“ for 2 seconds. Useful in PTT environments where an agent may need to remove themselves from the PTT channel w/o having to take the headset off (i.e. speaking with a customer).

Shared Device Mode is a set of customized features that optimize a headset for an environment where hardware (headset and handset) are shared and utilizes the following configuration settings (single pairing, disable SLC, SDK Mode, and adds enumeration).

Single Pairing: A feature configured through one-touch or SDK that allows the headset to only store one (1) Bluetooth address at a time (vs 8 in Individual Mode).

SLC (Service Level Connection) works to reestablish BT connectivity to the last known device. Disabling this will prevent the headset from automatically connecting to a previously paired device.

SPP or Serial Port Protocol is a communication methodology leveraging the classic Bluetooth connection for receiving customizable button events on Android.

Warehouse Mode is a set of customized features that optimize a headset for an environment that will not use telephony and utilizes the following configuration settings (disable MFB for call answer, disable MFB for call end, single pairing, disable SLC and adds enumeration).

Appendix C - Resources & Links

Easy access to further documentation and links to resources.

Software Resources

JPPB Github repository: gna-sw (Jabra-Perform-BlueParrott) · GitHub

JPBP iOS SDK: https://github.com/gna-sw/Jabra-Perform-BlueParrott-iOS-SDK

JPBP Android SDK: GitHub - gna-sw/Jabra-Perform-BlueParrott-Android-SDK

JPBP One Touch App: GitHub - gna-sw/Jabra-Perform-BlueParrott-One-Touch-App: BlueParrott One Touch App

JPBP Sample Android Apps:
https://github.com/gna-sw/Jabra-Perform-BlueParrott-Sample-Android-App-Package

Headset Links:

Jabra Perform 45: Own the retail floor (jabra.com)

BlueParrott Headsets: Warehouse Headsets | BlueParrott