Manuals+ — User Manuals Simplified.

ZEBRA Services Agent Mobile Application

ZEBRA Services Agent Mobile Application User Guide

Contents

ZEBRA Services Agent Mobile Application

Product Information

Specifications

- Zebra Services Agent User Guide
- April 2024
- **Supported Platform**: Android
- **RAM Memory Requirements:** ZSA – 7 MB, ZSBH – 47 MB
- **Storage Memory Requirements**: ZSA – 27 MB, ZSBH – 35 MB
- **Battery Discharge Impact**: Less than 1% over a 24-hour period for both ZSA and ZSBH
- **Android OS Support**: 8.1 onwards
- **Language Support:** English, French, Italian, German, and Spanish

Product Usage Instructions

About Zebra Services Agent (ZSA)

Zebra Services Agent is designed to provide real-time alert capabilities for VisibilityIQ Foresight (VIQF) and Proactive Battery Replacement Services. The app alerts users about bad battery swaps or identifications on mobile devices.

Functional Overview

The Zebra Services Agent comprises:

1. ZSA Mobile Device Application: Deployed on devices through MDM, starts as a service upon device boot up.
2. ZSA Server-Side Platform: Server-side software hosted in Zebra's Virtual Private Cloud provides data security and confidentiality.
3. Zebra Services Battery Health (ZSBH) Application: Deployed on devices through MDM, started by ZSA Service during device boot.
4. ZSBH Server-side Platform: The server-side software is deployed to the same GKE cluster as ZSA Server.

Prerequisites

Zebra recommends using DNS server names instead of IP addresses for whitelisting to avoid service interruptions due to IP address changes.

Installation

To enable the ZDS agent, follow the instructions provided at the following links:

- **https://techdocs.zebra.com/zds/setup/**
- **VIQ-ZDS-Enable-Configurations.zip**

FAQ

- **Q: What are the resource requirements for ZSA and ZSBH?**
  - **A:** ZSA requires approximately 7 MB of RAM memory and 27 MB of storage memory. ZSBH requires 47 MB of RAM memory and 35 MB of storage memory.
- **Q: Which languages are supported by the ZSA application?**
  - **A:** The ZSA application supports English, French, Italian, German, and Spanish languages.

April 2024

REVISION HISTORY

Revision	Description	Date	Modified By
1	Initial Release	8/20/2023	Prashant
1.1	Modified the text, app name and app images	9/23/2023	Prashant
1.2	Details about ZSBH	9/27/2023	Prashant
1.3	Added firewall rules for ZSA URL	10/25/2023	Raghu

ABOUT ZEBRA SERVICES AGENT (ZSA)

Zebra Services Agent is a mobile application with device alerting capabilities. The Zebra Services Agent will provide 'On Device Battery Alert' capabilities for VisibilityIQ Foresight and Proactive Battery Replacement Services. The Zebra Services Agent is a client-side application for the Android platform (an Android App) and it is

designed for use in Zebra mobile computers. The key feature of the application is to generate an alert on the device whenever a bad battery is swapped or identified on the mobile device.
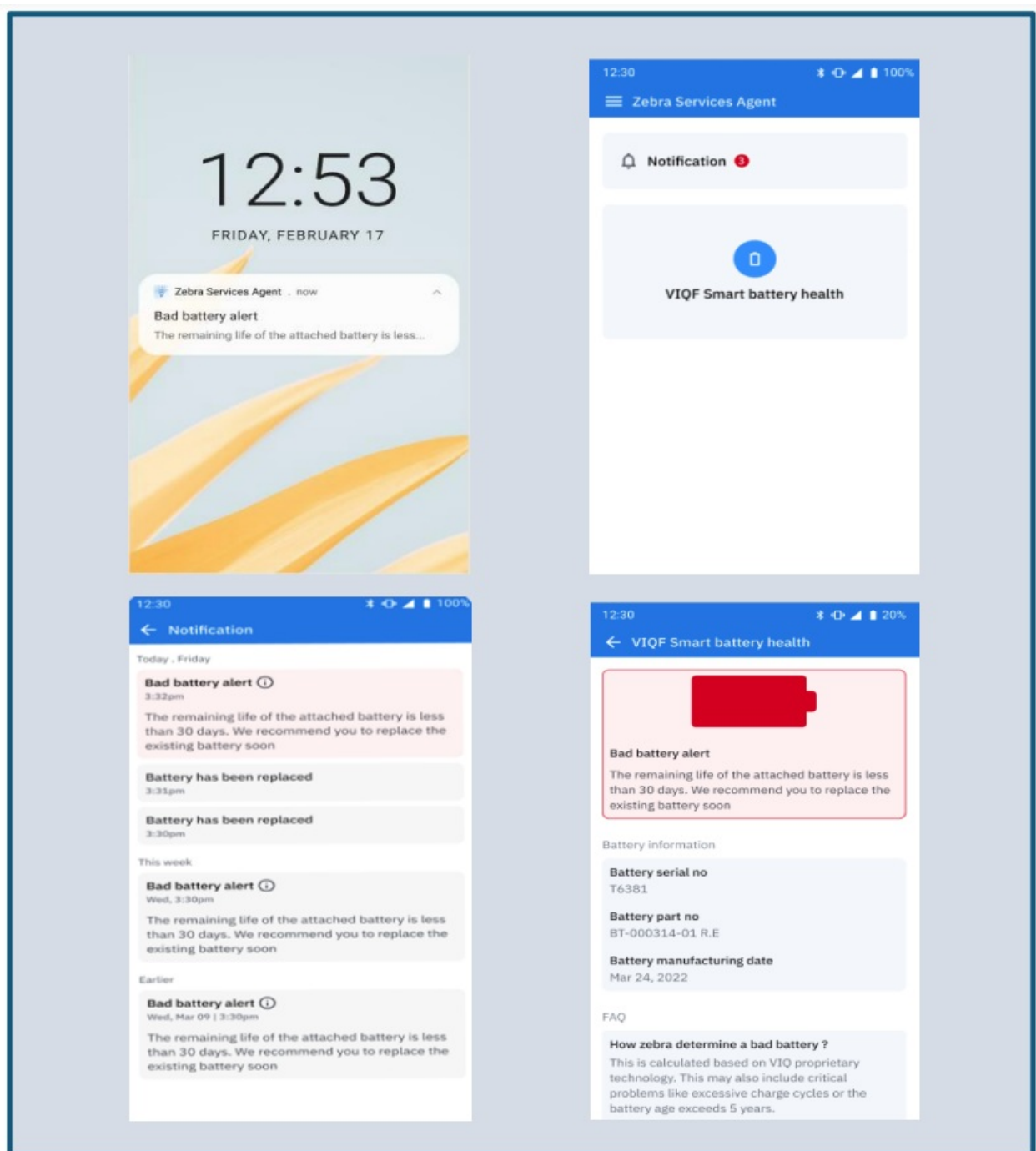
This document provides information how to securely set up the application and explains the features available.

FUNCTIONAL OVERVIEW

Zebra Services Agent is designed to have real time 'Alert on Device' capabilities for VisibilityIQ Foresight (VIQF) and Proactive Battery Replacement Services. The key feature of the app is to alert the user whenever a bad battery is swapped or identified on the mobile device.
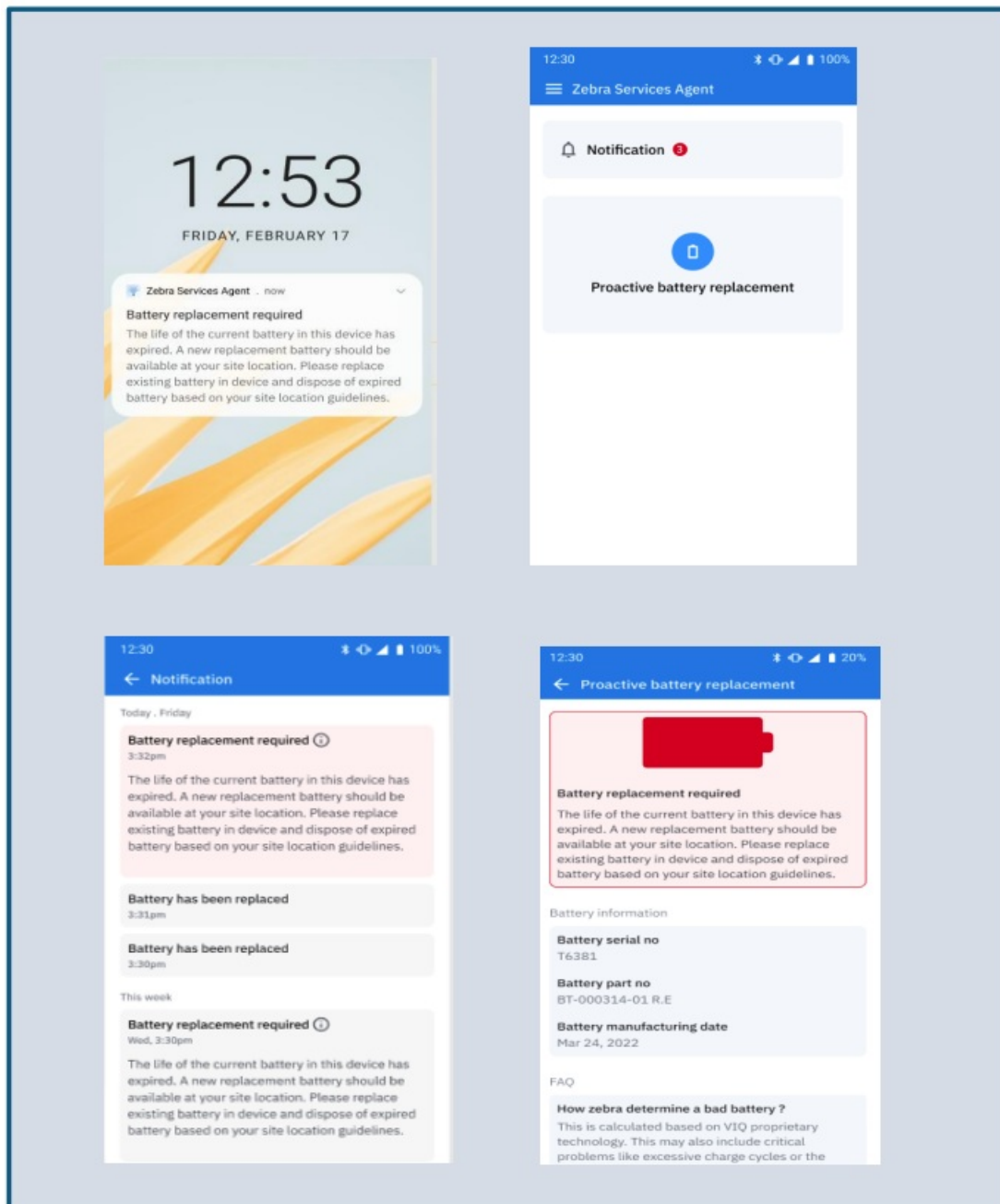
Alert capabilities for VisibilityIQ Foresight (VIQF):

- Identify VIQF "Replace Now" (Battery having less than 30 days of remaining useful life) batteries easily through on-device battery alert.
- Alert will be generated on device, every time a device is swapped with a bad battery. The app checks for both cold battery swap (via device reboot) and warm swap (without device reboot).
- Highlights battery health and details.

Alert capabilities for Proactive Battery Replacement (PBR) Service:

- Identify bad batteries for which battery replacement has already been sent to the customer location, through on-device battery alert. There is a grace period of 20 days, for an alert to be generated if a bad battery is swapped on a device since it has been marked replaced.
- Alert will be generated on device, every time a device is swapped with a bad battery. The app checks for both cold battery swap (via device reboot) and warm swap (without device reboot).
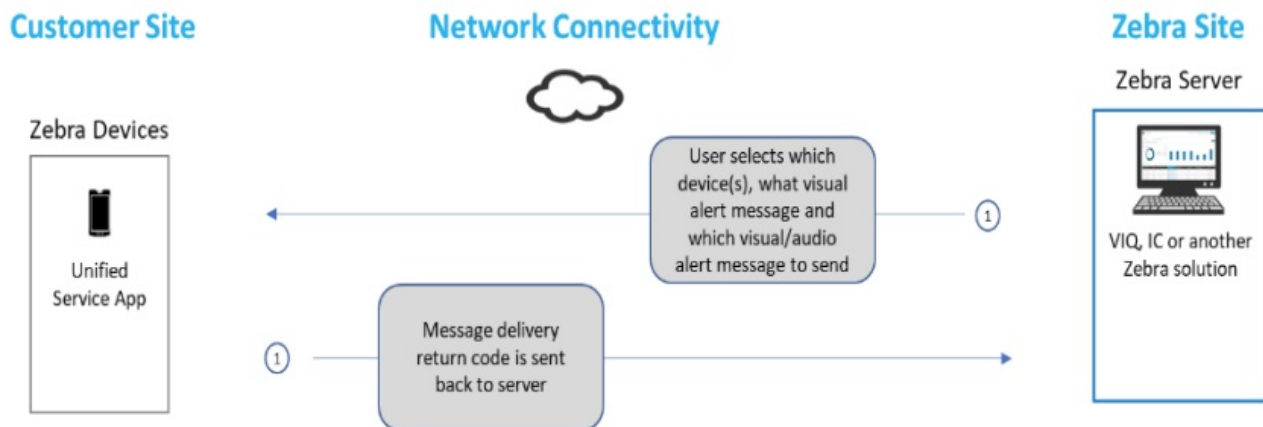- Highlighting battery health and battery details on the app.

HIGH-LEVEL DESIGN OVERVIEW

The Zebra Services Agent consists of the following elements:

1. ZSA Mobile Device Application: Deployed on the device through MDM. The app shall start as a service upon device boot-up. The application provides UI screens for user interaction, shows notifications, and launches or terminates other Zebra applications. Android is the only supported platform.

2. ZSA Server-Side Platform: Server-side software and the infrastructure hosted in Zebra's Virtual Private Cloud from the Google Cloud platform. The server infrastructure is a multi-tenant solution that provides data security and confidentiality.

3. Zebra Services Battery Health (ZSBH) Application: Deployed on the device through MDM. The Battery Health App will be started by ZSA Service during device boot and Battery Health App will run as a service. The ZSA App will have a launch icon in the home screen for the Battery Health App.

4. Zebra Services Battery Health (ZSBH) Server-side Platform: The server-side software for the Battery Health App will be deployed to the same GKE cluster as ZSA Server. The Cloud Memory store will also be shared with

ZSA Server.

ZSA AND ZSBH RESOURCE REQUIREMENTS

The following are estimated resource requirements for ZSA and ZSBH app:

1. ZSA requires approximately 7 MB of RAM memory and ZSBH requires 47 MB.
2. ZSA requires approximately 27 MB of storage memory and ZSBH requires 35 MB.
3. The impact of both ZSA and ZSBH on battery discharge is less than 1% over a 24-hour period.

PREREQUISITES

The following are prerequisites for the ZSA App and other dependent apps like the ZSBH App.

1. Devices must be enrolled in MDM as WorkManaged to deploy and auto-launch the apps. SOTI, AirWatch and 42 Gears MDM are supported at this time. More MDMs will be supported in the future.
2. The device must be on Android version 8.1 or above.
3. The device must be ZDS enabled. If devices are behind a corporate firewall, ensure the ZDS cloud server can be reached from the devices. The server info and port used by ZDS are listed as below: –
   - **Server 1 address: https://analytics.zebra.com**; using IP address 104.198.59.61 on Port: 443
   - **Server 2 address**: **https://device-https.savannacore.zebra.com**; using IP address:
   - **34.68.84.87 on Port**: 443
   - **Server 3 address**: **https://usa.eu.zebra.com** on **Port:** 443
4. Enable network connectivity on devices (WWAN or WLAN-based). ZSA app provides On On-device battery alert for VisibilityIQ Foresight and Proactive Battery Replacement Services. Below are the key assumptions for collecting the required data for generating alert.

Note: Zebra recommends using DNS server names (instead of IP addresses) when whitelisting (aka "allowlisting") to avoid service interruptions (i.e., due to IP address change).

ANDROID VERSION AND LANGUAGE SUPPORT

1. **Android OS support**: 8.1 onwards
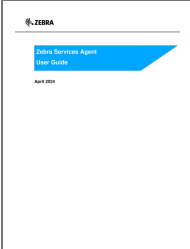2. **Language support**: English, French, Italian, German and Spanish.

INSTALLATION

- APKs will be shared by the Zebra team to the customer admin.
- APKs will be installed on the devices via MDM.

MISCELLANEOUS INFORMATION

Enable ZDS agent:

- **https://techdocs.zebra.com/zds/setup/**
- **https://www.zebra.com/content/dam/zebra_new_ia/en-us/support-and**
- **downloads/visibilityiq/visibilityiq-foresight/VIQ-ZDS-Enable-Configurations.zip**

Documents / Resources

ZEBRA Zebra Services Agent User Guide April 2023	**ZEBRA Services Agent Mobile Application** [pdf] User Guide Services Agent Mobile Application, Agent Mobile Application, Mobile Application, Application

References

- 📄 **Document**
- 〽 **Zebra Data Service Setup - TechDocs**
- **User Manual**