BUILD BYTES

SOFTWARE REQUIREMENT SPECIFICATION

5G Setter

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1. Introduction

- **1.1 Purpose**: This document provides a detailed specification for the 5G Setter application. The purpose of the application is to enable users to set their network mode to NR (5G only), ensuring a stable 5G connection and resolving issues with fluctuating connections between 4G and 5G.

- **1.2 Scope**: 5G Setter is a mobile application designed for Android devices that allows users to switch their network mode to 5G only. This application aims to provide a seamless experience by avoiding interruptions caused by network fluctuations.

- **1.3 Definitions, Acronyms, and Abbreviations**:

  - **5G**: Fifth-generation mobile network technology.

  - **NR**: New Radio, a standard for 5G.

  - **APK**: Android Package Kit, the file format used for distributing and installing applications on Android.

- **1.4 References**:

  - Android Developer Documentation.

  - Google Play Store Developer Guidelines.

- **1.5 Overview**: This document is structured to include overall description, functional requirements, non-functional requirements, system features, external interface requirements, and additional requirements.

2. Overall Description

- **2.1 Product Perspective**: The 5G Setter application is designed to be a standalone tool for managing network modes on Android devices. It will be distributed through the Google Play Store and also available for direct download as an APK file.

- **2.2 Product Functions**:

  - Allow users to switch their network mode to NR only (5G only).

  - Provide an ad-free, minimalistic user interface.

- **2.3 User Classes and Characteristics**:

- **General Users**: Individuals who want to ensure a stable 5G connection, especially indoors.

- **2.4 Operating Environment**:

  - **Hardware**: Android smartphones and tablets with 5G capability.

  - **Software**: Android 9.0 (Pie) or higher.

- **2.5 Design and Implementation Constraints**:

  - Must adhere to Google Play Store policies and guidelines.

  - Limited to devices with 5G capability and Android 9.0 or higher.

- **2.6 Assumptions and Dependencies**:

  - Users have devices capable of 5G connectivity.

  - The application will be compatible with the latest Android updates.

3. Functional Requirements

- **3.1 Functional Requirements**:

  - The application must provide a button labeled "Set to 5G Only."

  - Upon tapping the button, the application must prompt the user to confirm the network mode change.

  - The application must execute the network mode change to NR (5G only) upon user confirmation.

- **3.2 Use Cases**:

  - **Use Case 1**: User launches the 5G Setter app.

    - **Actor**: User

    - **Preconditions**: User has installed the app on a compatible device.

    - **Main Flow**:

      1. User opens the app.

      2. User taps the "Set to 5G Only" button.

      3. User confirms the network mode change.

4. Application sets the network mode to NR (5G only).

- **Postconditions**: User's device is set to use 5G only.

- **Alternative Flows**: If the user cancels the confirmation, the network mode remains unchanged.

4. Non-Functional Requirements

- **4.1 Performance Requirements**: The app must perform the network mode change within 5 seconds of user confirmation.

- **4.2 Security Requirements**: The app must not collect or transmit any personal data.

- **4.3 Usability Requirements**: The app must have a simple and intuitive interface, requiring minimal user interaction to change the network mode.

- **4.4 Reliability Requirements**: The app must reliably set the network mode to 5G only on supported devices.

- **4.5 Maintainability Requirements**: The app should be updated regularly to ensure compatibility with new Android versions.

- **4.6 Portability Requirements**: The app must be compatible with a wide range of Android devices that support 5G.

5. System Features

- **5.1 No Ads**: The app provides an uninterrupted experience without advertisements.

- **5.2 Lightweight**: The app is designed to be minimalistic and efficient, consuming minimal resources on the device.

6. External Interface Requirements

- **6.1 User Interfaces**:

  - **Main Screen**: Contains a single button labeled "Set to 5G Only."

  - **Confirmation Dialog**: Prompts the user to confirm the network mode change.

- **6.2 Hardware Interfaces**:

  - Requires a 5G-capable Android device.

- **6.3 Software Interfaces**:

  - o Utilizes Android system APIs to change network settings.

- **6.4 Communication Interfaces**:

  - o No external communication required.

7. Other Requirements

- **7.1 Legal and Regulatory Requirements**:

  - o Must comply with data protection regulations and app store guidelines.

- **7.2 Standards Compliance**:

  - o Adheres to Android application development standards.

- **7.3 Documentation Requirements**:

  - o User manual available within the app and on the Google Play Store listing.