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**FACULTY OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF COMPUTER ENGINEERING**



**COURSE TITLE: INTERNET PROGRAMMING (J2EE) AND MOBILE PROGRAMMING**

**COURSE CODE: CEF440**

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# Brand Identity Report: Vital Sign

“Real-time Quality of Experience Feedback”

## 1. Brand Overview

**App Name:** Vital Sign

**Purpose:** Enables users to share real-time feedback on their network Quality of Experience (QoE), which is then forwarded to their network providers.

**Unique Value:** Empowers users to voice their network experience in a structured, data-rich, and real-time format, driving better service accountability.

## 2. Visual Identity

Table 1: Color Palette

Element	Color (Hex / Opacity)	Description
<b>Background</b> (main panels)	#1C1F2A (Dark Blue Gray)	Professional, calm
<b>Foreground Panels/Fields</b>	#2A2E3D (Slightly lighter)	Clear distinction for sections
<b>Highlight Yellow</b>	#FFD54F / #FFC107	Used for experience rating (e.g., emoji row, badges)
<b>Live/Active Status (Green)</b>	#00C853 / #7ED957	Indicates active monitoring or good connection

<b>Accent Blue</b>	#3FA9F5	Used for throughput, location (GPS), buttons
<b>Text Colors</b>	Mostly white (#FFFFFF) with ~90–95% opacity for readability	
<b>Borders</b> / <b>Containers</b>	White, ~10% fill, ~95% stroke for subtle contrast	

#### Color Use Strengths:

- High contrast between text and background
- Consistent use of color coding for context (green = active, yellow = feedback, blue = data points)

#### Color Use Opportunities:

- Can incorporate a **secondary accent color** to emphasize user interaction (e.g., red for poor connection, purple for analytics)
- Add slightly **stronger contrast** for section headers or call-to-actions

### 3. Typography

**Table 2: Typography properties**

Attribute	Value
<b>Font Family</b>	Poppins

<b>Style</b>	Mostly regular and bold
<b>Text Hierarchy:</b>	<ul style="list-style-type: none"> <li>● <b>Titles:</b> Bold, capitalized (e.g., “Network Analysis”, “Context Information”)</li> <li>● <b>Subtitles:</b> Regular or medium, aligned left for readability</li> <li>● <b>Body Text:</b> Clean, easy-to-read at small sizes</li> </ul>

#### Reason for choosing Font:

- Poppins contributes to a **neutral, clean, and accessible** look.

#### 4. Layout & Iconography

- Used a **card-based layout** with well-defined, rounded containers.
- Emphasized **user interaction through emoji feedback**, toggle buttons, and GPS tags.
- Icons are minimalist and descriptive (e.g., call, video, indoor/outdoor).
- **Good visual grouping** with uniform padding and consistent spacing.

## 5. Brand Voice & Personality

**Table 3: Brand personality**

Trait	Evidence in UI
<b>Professional</b>	Dark color palette, structured layout
<b>Trustworthy</b>	Clear analytics, labeled icons, verified location info
<b>User-centric</b>	Emoji feedback, direct experience rating system
<b>Calm/Measured</b>	No overwhelming animations, clean text hierarchy

## 6. Strengths of Current Brand Identity

- Consistent, focused dark theme enhances data readability.
- Simple UI elements support easy navigation and comprehension.
- Visual language effectively distinguishes between feedback levels and contexts.
- Feedback interface is **immediate and intuitive**, matching real-time use case.

# Conclusion

The current brand identity of *Vital Sign* is strong in terms of **clarity**, **usability**, and **technical professionalism**. It delivers a **focused, trustworthy experience** through its dark theme, contrasting colors, and direct feedback interface. Minor refinements — such as logo development and a subtle branding extension — can elevate its recognition and polish.

## Figma Implementation

### Overview

This documentation covers the interconnection of the various screens of the Quality of Experience application designed to collect user experiences and technical data about cellular network performance.

### 1. Home Screen

Purpose:

Primary dashboard showing real-time network metrics and entry point for user feedback.

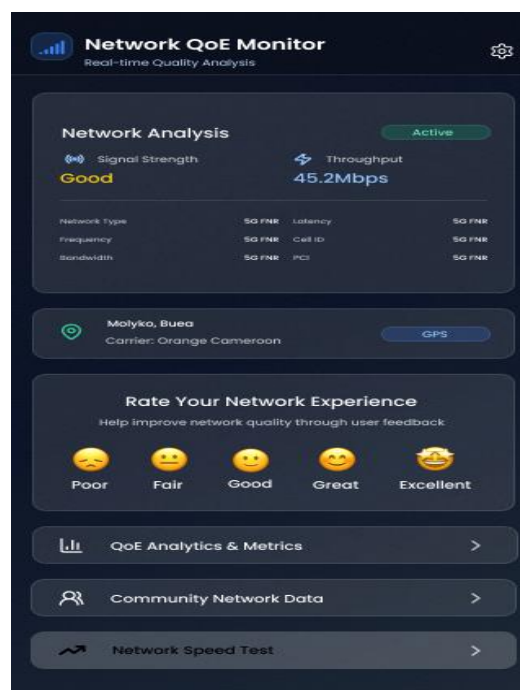


Fig 1

### **UI Components**

1. Header
2. Network Analysis Section
3. Technical Network Details:
  - Network Type
  - Frequency
  - Bandwidth
  - Latency
4. Location Information :
  - Area
  - Carrier
5. Call-to-Action Button
6. Rating Options

## **2. Feedback Form Screen**

Purpose:

Detailed feedback collection about network quality issues.


UI Components:

1. Header
2. Rating Section
3. Context Information:
4. Situation Context
5. Specific Issues Section




Network Experience Feedback

Detailed quality assessment



Good Experience

Selected rating: 3/5



Context Information

Location

Downtown Area

Time

3:04:14 AM

Situation Context


Indoor


Outdoor


Moving/Vehicle


Stationary


Specific Issues Experienced


 Indoor

 Call Drops/Quality

 Web Page Loading

 Video Streaming Issues

 App Performance

 No Connection

Additional Details (Optional)

Describe your network experience in detail. What were you trying to do? What specific problems did you encounter? Any other relevant information...

Your feedback helps network engineers identify and resolve issues more effectively

Technical Data Included

Signal strength, network type, location, and performance metrics will be automatically included with your feedback

Fig2

## 4. Community Network Insights

Purpose: Crowd sourced network quality visualization



Fig3

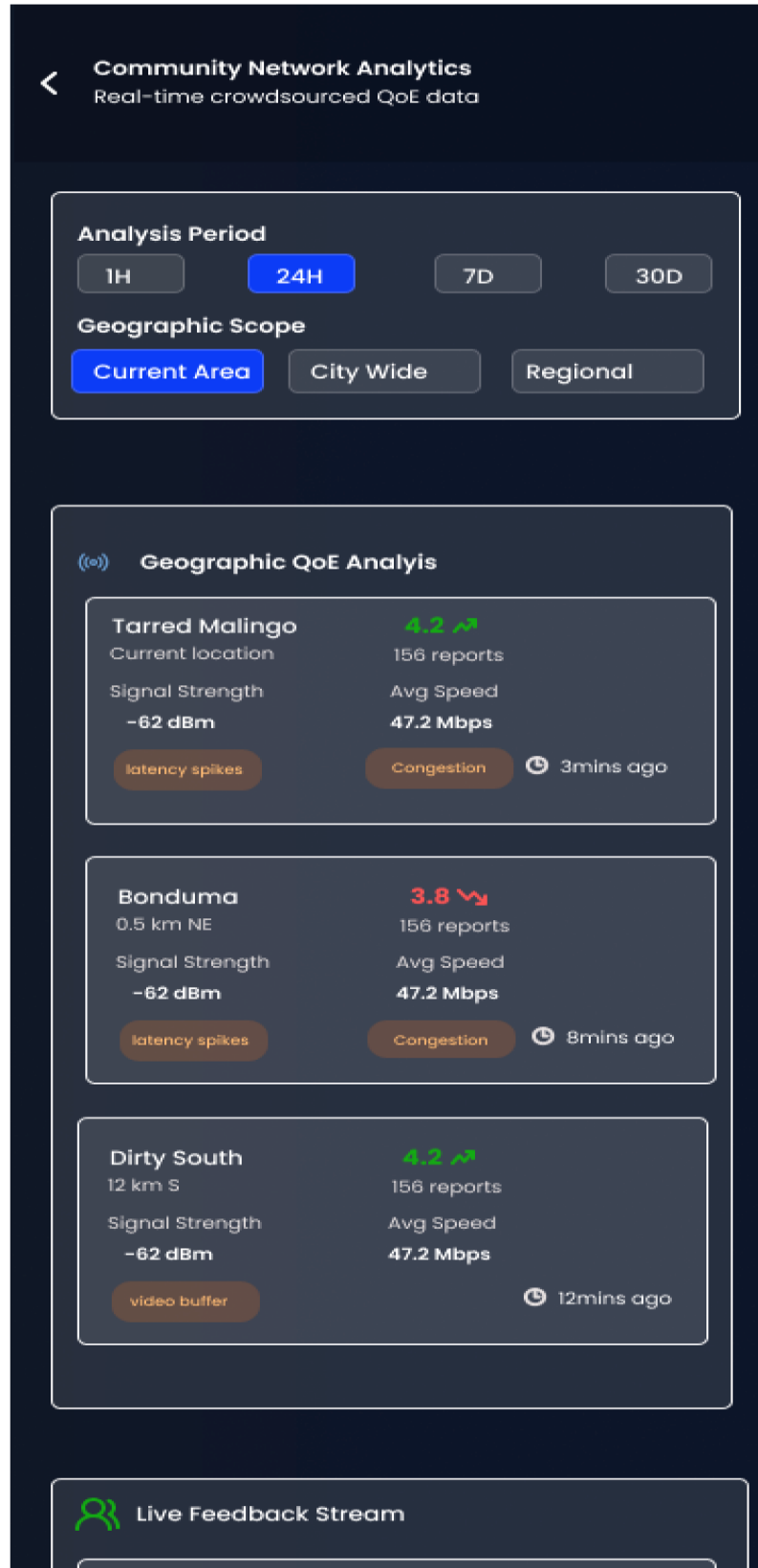


Fig 4

### **UI Components:**

1. Time filter
2. Scope Selector
3. Geographical Analysis
4. Signal Strength
5. Issue indicators
6. Live Feed
7. Issue Analysis

### **Interaction Flow:**

1. User adjusts time/scope filters
2. Cards dynamically update
3. Clicking location card → Drills down to area details
4. Live feed auto-scrolls

## **5. Metric Performance**

Purpose: Historical trend analysis

### **UI Components:**

1. Time Filter
2. Trend Chart
3. Performance Summary

## **6. Settings**

Purpose: System Configuration

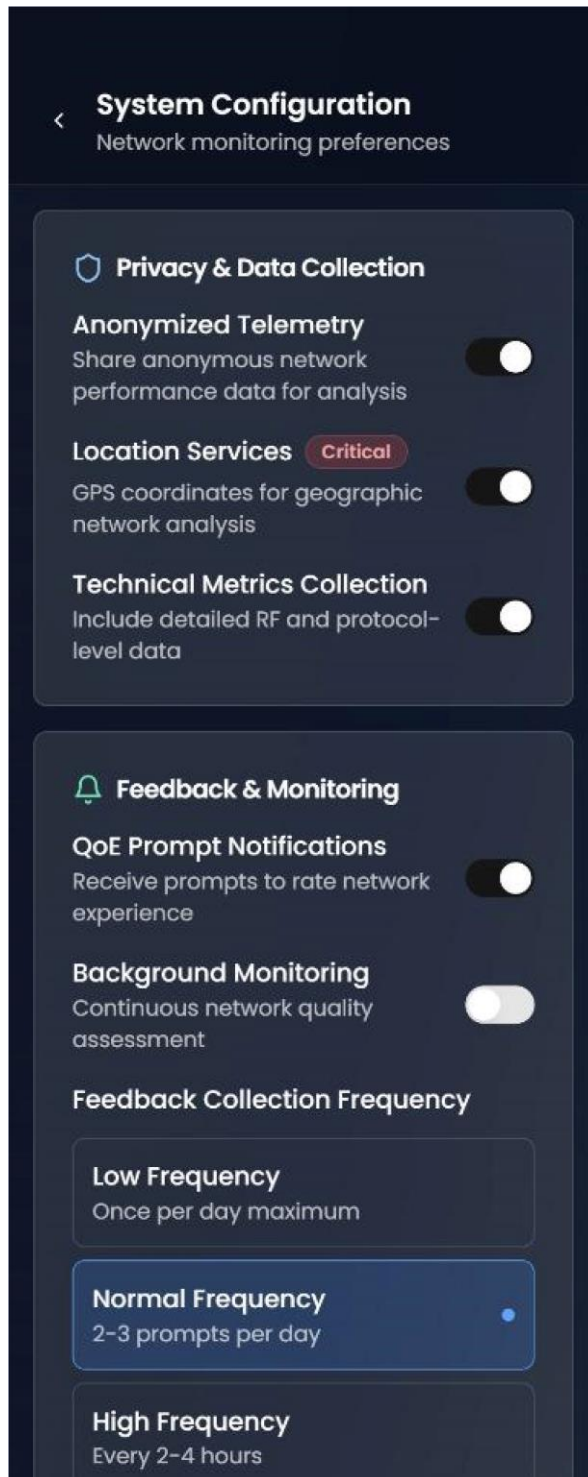


Fig 5

## UI Components:

1. Privacy Toggle
2. Notification settings
3. System info

## 7. Speed Test Flow

The Speed Test screen measures and analyzes the device's network performance in real-time, providing

- Download/Upload Speed (Mbps)
- Latency (ms)
- Jitter (ms)
- Packet Loss (%)
- Performance Rating

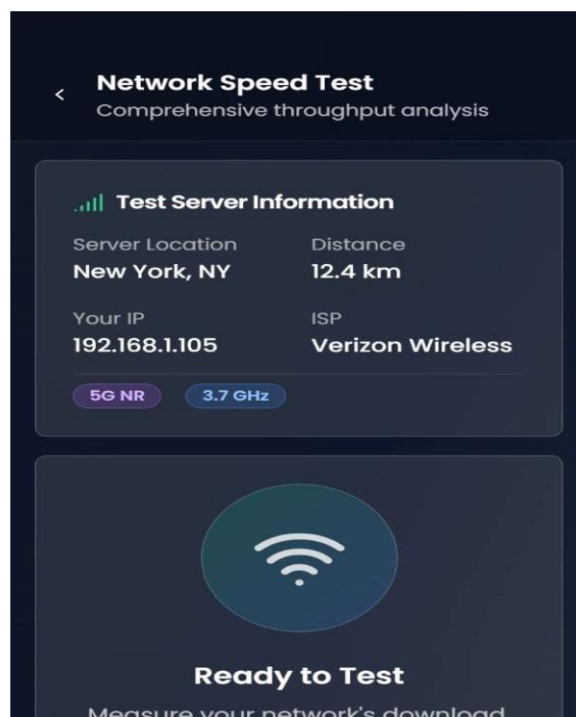


Fig 6

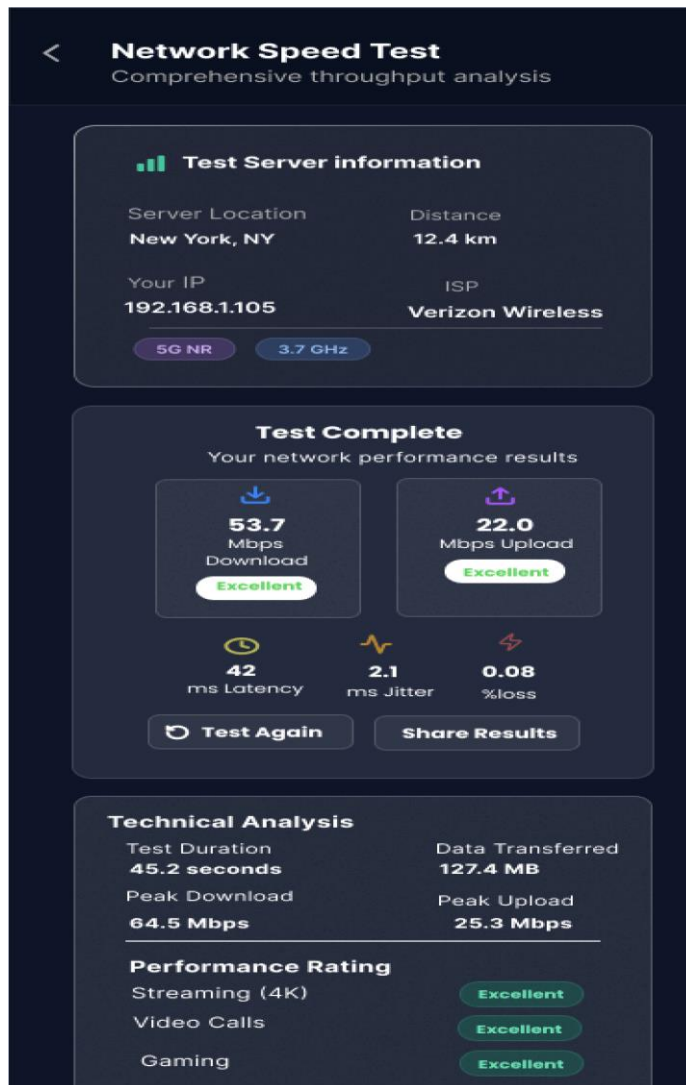


Fig 7

## UI Components

1. Performance Rating
2. Result Visualization
3. Share Functionality

## Technical Specs

- Test duration
- Minimum test size
- Latency measured via ICMP packets

## Frontend Implementation Overview

### Tools & Purpose

#### 1. Development Environment

- VS Code
  - Primary code editor with extensions for React Native debugging and formatting.
  - Used for writing all JavaScript/TypeScript code and UI components.

#### 2. Core Technologies

- React Native
  - Builds the mobile app for iOS and Android from a single codebase.
  - Handles UI rendering, navigation, and state management.
- Expo
  - Simplifies development with pre-configured tools (e.g., testing on devices, over-the-air updates).
  - Useful for rapid prototyping but may limit native module access.

#### 3. UI & Icons

- Lucide React
  - Provides clean, customizable icons (e.g., Wi-Fi, speed gauge, alert symbols).
  - Integrated into buttons, status indicators, and menus.

## Workflow Summary

#### 1. Setup

- Install React Native/Expo.



- Configure VS Code with recommended extensions.

## 2. UI Development

- Screens built with React Native components
- Icons added from Lucide for visual cues

## Implementation

Below are the following UI implementation of our various screens

### 1. Home Screen

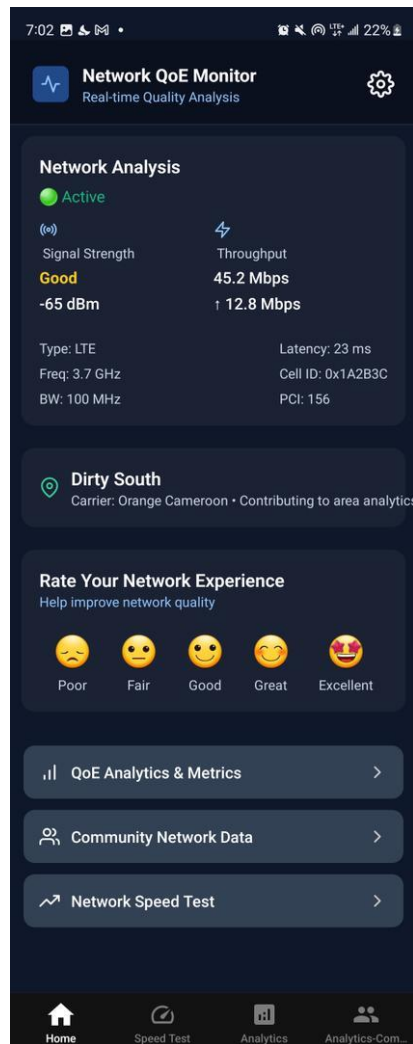


Fig 8

### 2. Analytics Community

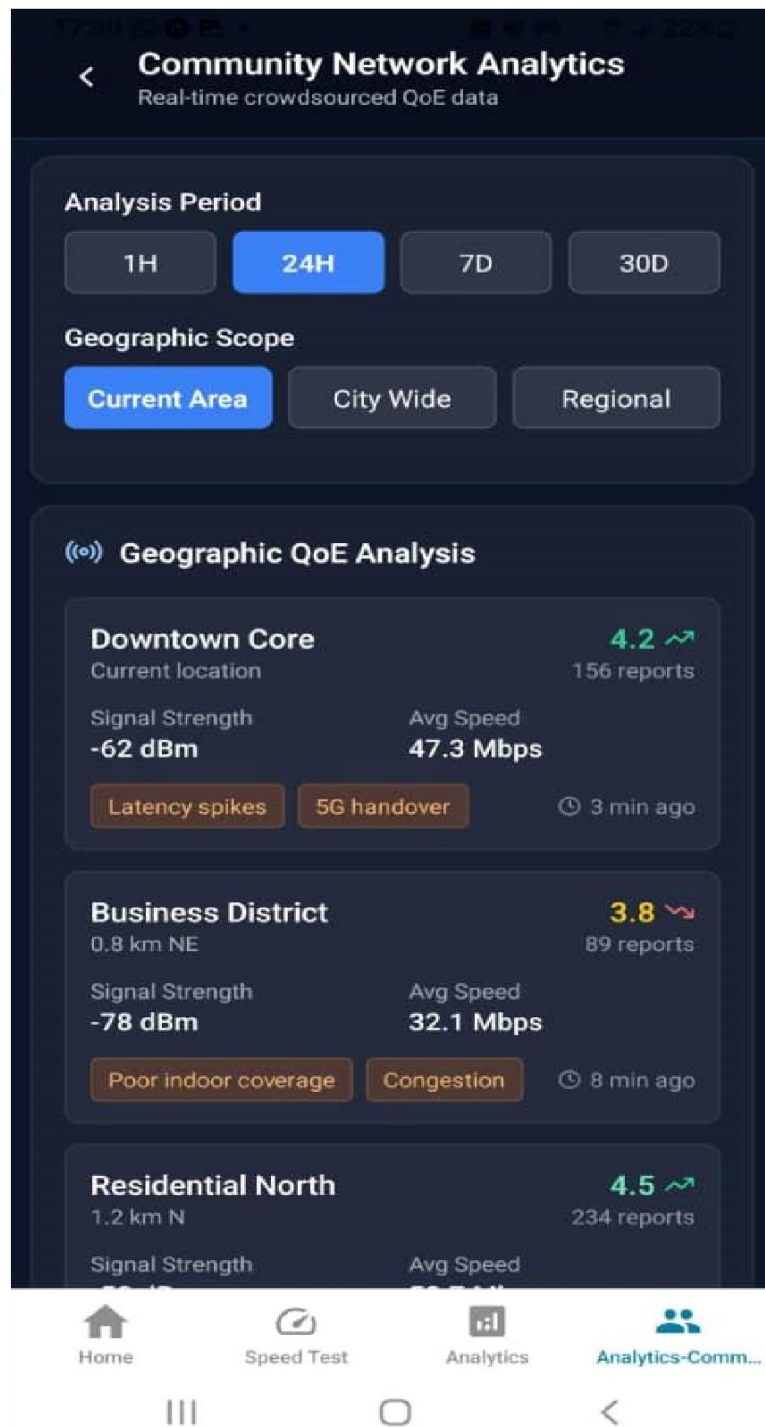


Fig 9

### 3. Network Analytics

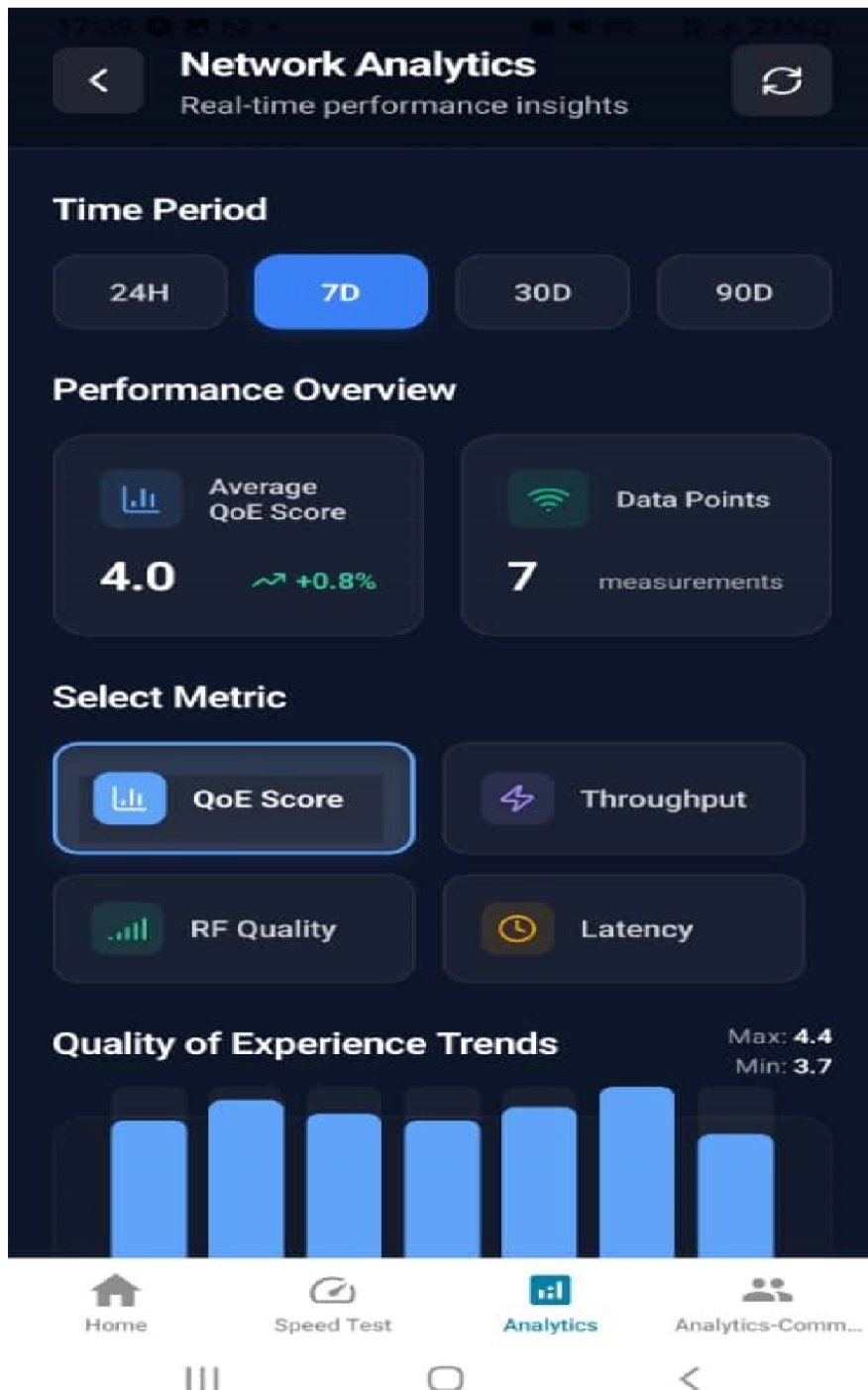


Fig 10

### 3. Settings Screen

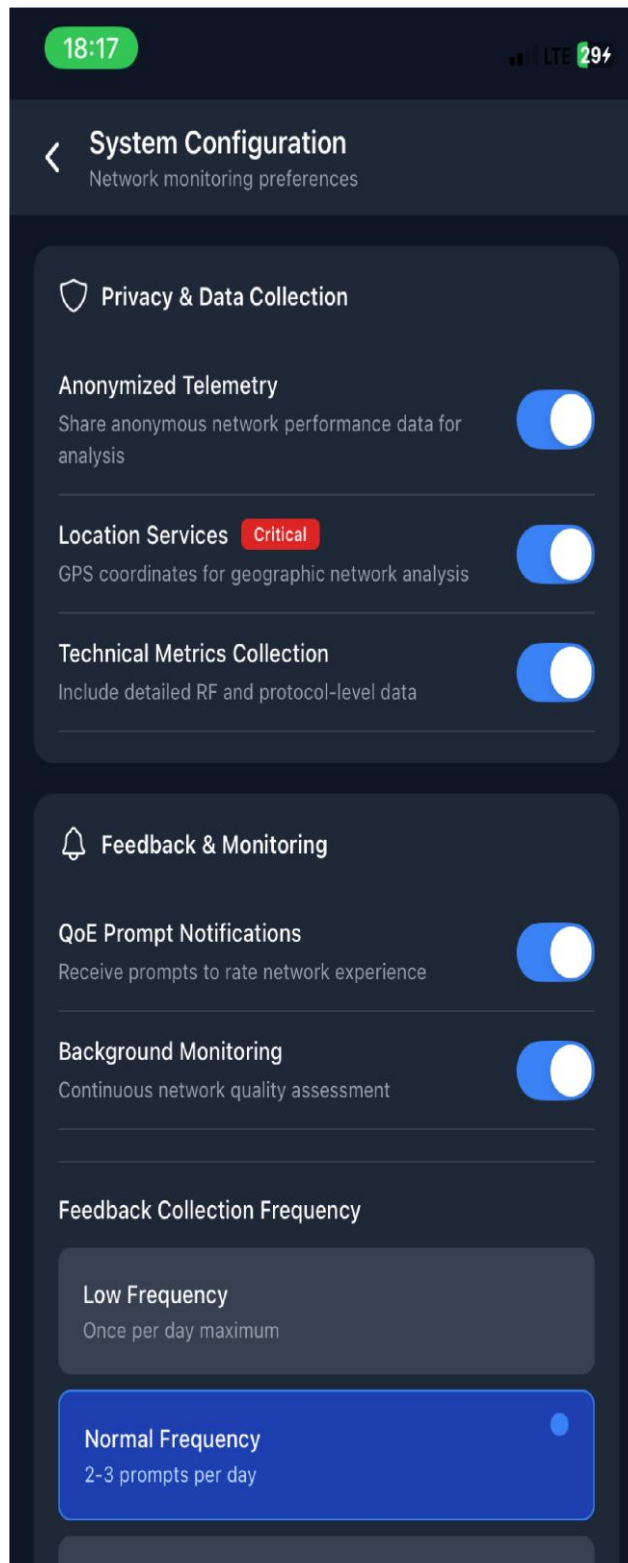


Fig 11

#### 4. Speed test

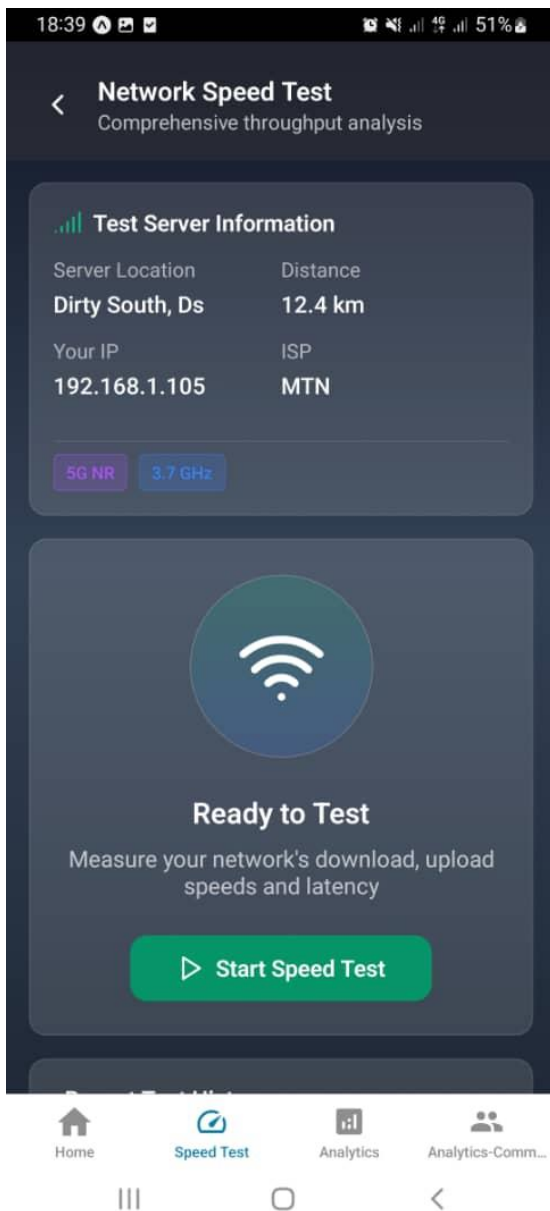


Fig 12

#### 6. Feedback Screen

7:08
24%

<
**Network Experience Feedback**  
Detailed quality assessment

**Excellent Experience**  
Selected rating: 5/5

**Context Information**

Location  
Downtown Area

Time  
7:07:56 PM

**Situation Context**

Indoor

Outdoor

Moving/Vehicle

Stationary

Crowded Area

Peak Hours

**Specific Issues Experienced**

**Slow Data Speed**  
High Priority

**Call Drops/Quality**  
High Priority

**Video Streaming Issues**  
Medium Priority

**Web Page Loading**  
Medium Priority

**App Performance**  
Low Priority

**No Connection**  
Critical Priority

**Additional Details (Optional)**

Describe your network experience in detail. What were you trying to do? What specific problems did you encounter? Any other relevant information...

Your feedback helps network engineers identify and resolve issues more effectively.

**Technical Data Included**  
Signal strength, network type, location, and performance metrics will be automatically included with your feedback.

**Submit Network Feedback**

Anonymous submission • Data used for network optimization only

Home

Speed Test

Analytics

Analytics Com.

Fig 13

## Conclusion

The Figma design and code implementation worked hand-in-hand to create a **clean, functional network monitoring app**. Key wins:

- **Design:** Intuitive layout, clear data visualization, and consistent icons (Lucide).
- **Development:** Fast, modular React Native application.
- **Result:** A user-friendly tool that simplifies network diagnostics and feedback.

**Figma reference link:** <https://www.figma.com/design/faHGtiWW0cQx9CrZyWAw1i/Internet-Programming?node-id=34-2849&p=f&t=s8HZqLJ5TXQCuRjJ-0>