Crisis Companion - Submission Overview

Crisis Companion is a voice-activated emergency response application designed for Solana Mobile devices that addresses the critical problem of emergency response delays in remote areas. The idea was born from a personal experience last summer when my 4-year-old son forgot he didn't have his lifejacket on and almost drowned at the lake. I found him underwater and performed CPR without knowing what I was doing. That moment made me realize we need a tool that guides people through emergencies when they're in shock or not thinking clearly.

The Problem: Every year, 236,000 people die from drowning alone, with average emergency response times of 8-12 minutes. In life-threatening situations, every second counts. When emergencies occur, people often panic and forget basic emergency procedures. I experienced this firsthand when my son was drowning - I was in shock and didn't know what to do. Traditional emergency apps require manual activation and internet connectivity, which may not be available in remote locations like beaches, hiking trails, or during natural disasters. In remote areas where emergency response times are longest, reliable internet connectivity is often unavailable.

Our Solution: Crisis Companion uses offline voice recognition to detect emergency phrases like "Drowning help!" and immediately initiates a comprehensive emergency response. The app automatically sets the phone volume to 100%, plays step-by-step emergency instructions, coordinates with nearby devices via Bluetooth Low Energy, and stores audio hashes on Solana blockchain for security and audit purposes. Built specifically for remote areas, the app works completely offline - no internet connectivity required. All emergency instructions are stored locally, voice recognition works without cloud services, and Bluetooth coordination functions without cellular networks.

Current Emergency Types Supported (Initial Release): The app currently supports 9 emergency scenarios: drowning (CPR instructions), heart attack (CPR + AED guidance), choking (Heimlich maneuver), bleeding (first aid steps), burns (cool water + treatment), allergic reaction (EpiPen guidance), seizure (safety positioning), heat stroke (cooling procedures), and hypothermia (warming techniques). The system is designed to be easily expandable, allowing for community-contributed emergency procedures and industry-specific protocols.

Technical Innovation: Built in Rust for high performance and memory safety, Crisis Companion integrates Vosk for offline speech recognition, SQLite for local emergency instruction storage, Bluetooth Low Energy for multi-device coordination, and Solana blockchain for tamper-proof emergency data storage. The app works entirely offline, ensuring functionality in remote locations. The architecture is designed for expandability, allowing easy addition of new emergency types through database updates.

Key Features: Voice-activated emergency detection with any emergency phrase triggering immediate response. Offline-first design ensures functionality without internet connectivity. Automatic volume control sets phone to 100% during emergencies. Step-by-step instructions are provided for any emergency type. Automatic actions include calling 911, sharing location, and recording audio for documentation. Multi-device coordination via Bluetooth Low Energy enables multiple devices to work together. Solana blockchain integration provides tamper-proof storage of emergency data and audio hashes.

Market Opportunity: Target markets include remote areas with poor connectivity, adventure sports enthusiasts, rural communities, natural disaster scenarios, boating and water activities, healthcare facilities, schools and universities, and corporate emergency

preparedness. The business model includes freemium pricing ($5-10/month per user) and enterprise licensing ($50,000/year per client), with a 2027 revenue target of $1.26M.

Privacy & Security: Audio recordings are encrypted with AES-GCM, location data is only shared during emergencies, blockchain storage ensures tamper-proof records, and the system is designed for HIPAA/GDPR compliance for medical data.

Roadmap: August 2024 hackathon submission, January 2025 MVP launch with 10 emergency types, April 2025 beta testing with 25+ emergency types, July 2025 public launch with expandable database, and 2027 revenue target achievement.

The app is specifically designed for people in shock or not thinking clearly during emergencies, providing clear, calm guidance when every second matters. Perfect for remote areas like beaches, hiking trails, boating activities, and camping where traditional emergency apps fail due to connectivity issues.