



# TriageNow

A real-time patient tracking platform built by first responders for first responders – aiding decision-making in a mass casualty incident, saving lives when every second counts.

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## The Challenge with Mass Casualty Incidents

When Emergency Medical Services (EMS) personnel respond to mass casualty incidents (MCIs), current communication and documentation methods present two critical challenges:

### COMMUNICATION

Critical updates are lost or delayed on crowded radio channels using handheld radios.

### DOCUMENTATION

Patient details are documented on paper triage tags that are damaged or seperated from patients in the chaos.

When information is not communicated or documentation properly, resources are not efficiently deployed, and patients lose critical time waiting for live-saving care.

## Objectives

### WE AIM TO...

**Relieve the communication and documentation challenges** that come with relying solely on radio communication and paper triage tags during MCI response

### BY...

Creating a user-friendly **software** that supports **efficient note-taking** and **seamless transfer of information**.

## Methods

### TECH STACK

#### Frontend:

- **React Native:** Common mobile app development framework
- **Expo Go:** Hosts application on mobile and web clients

#### Backend & Database

- **Convex:** Unified platform to view database container and make API requests

#### External tools:

- **Deepgram:** Transcribe patients notes audio
- **Mistral AI:** Parse specific info from transcription to populate patient profile

### SPRINT STRUCTURE

We followed the **Agile software development process**, engaging in four two-week sprints and focusing on completing specific tasks during each sprint. During each sprint, we dedicated the 1<sup>st</sup> and 2<sup>nd</sup> weeks to the following activities:

- **1<sup>st</sup> week:**
  - Created Figma prototypes
  - Implemented the frontend and backend
- **2<sup>nd</sup> week:**
  - Tested and refined app after identifying bugs and receiving user feedback
  - Completed an end-of-sprint retrospective and planned for next sprint

## A Hybrid Solution



Colored Triage Tags

Patient Barcode

Current EMS teams utilize colored tags to visually communicate a patient's condition

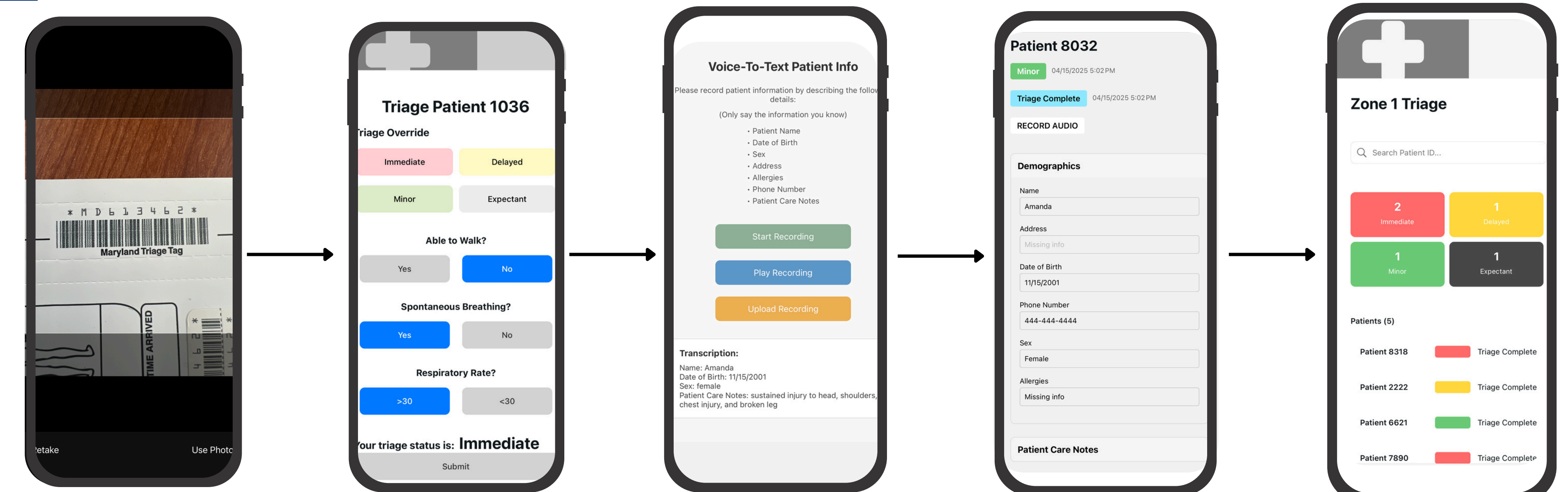
Responders can create a digital profile by scanning a patient barcode

## Important Definitions

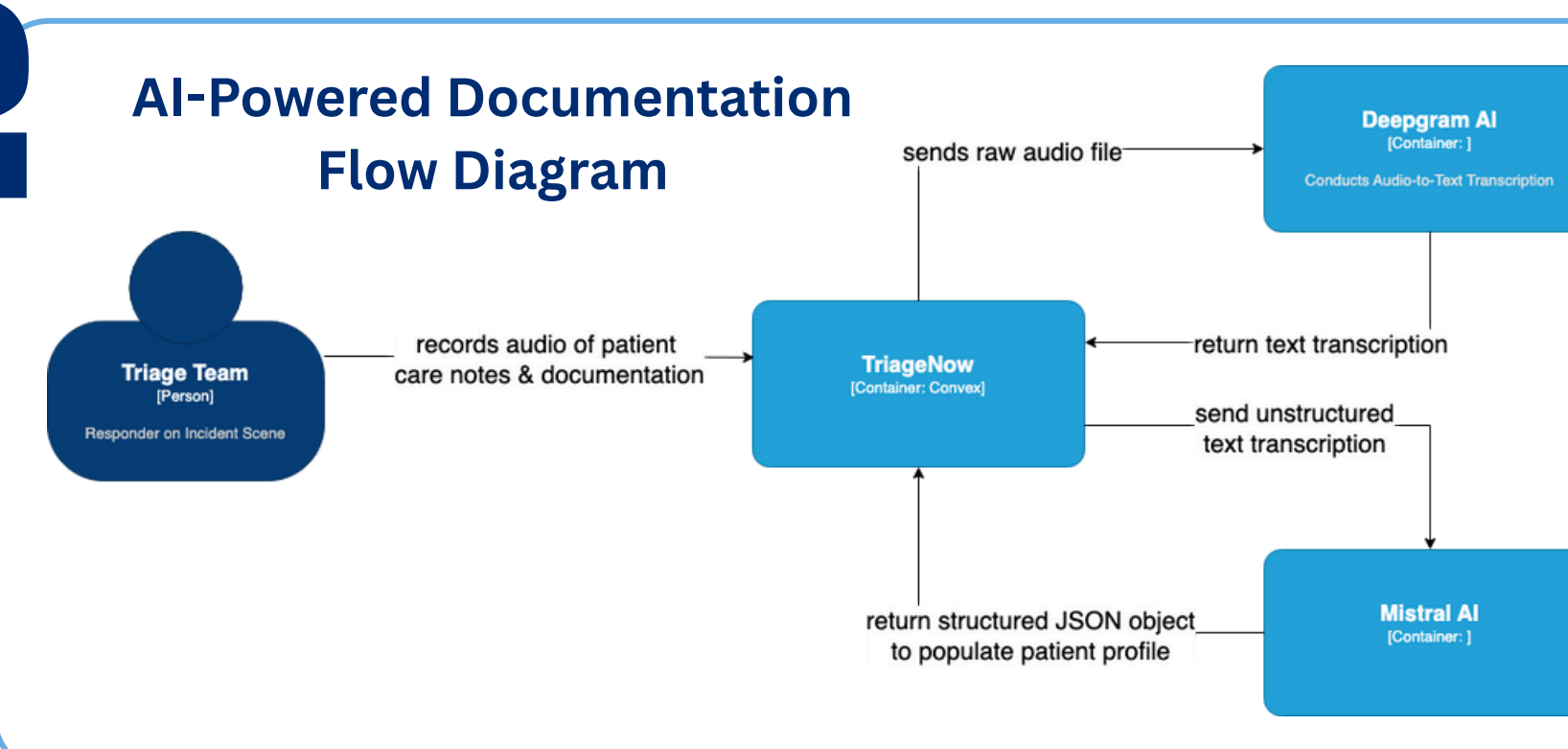
- **Triage:** Rapidly sort patients by severity using color-coded ribbons (red (critical), yellow (urgent), green (stable), black (deceased)) to ensure the worst-off are treated first.
- **Triage Team:** Front-line responders who assess injuries, attach and scan barcode-ribbons, and update each patient's live digital record.
- **Incident Commander (IC):** Command-post leader who monitors real-time updates from the triage team and directs resources such as ambulances, teams, supplies where they're needed most.

## Solution

### 1 Triage Team Software Flow



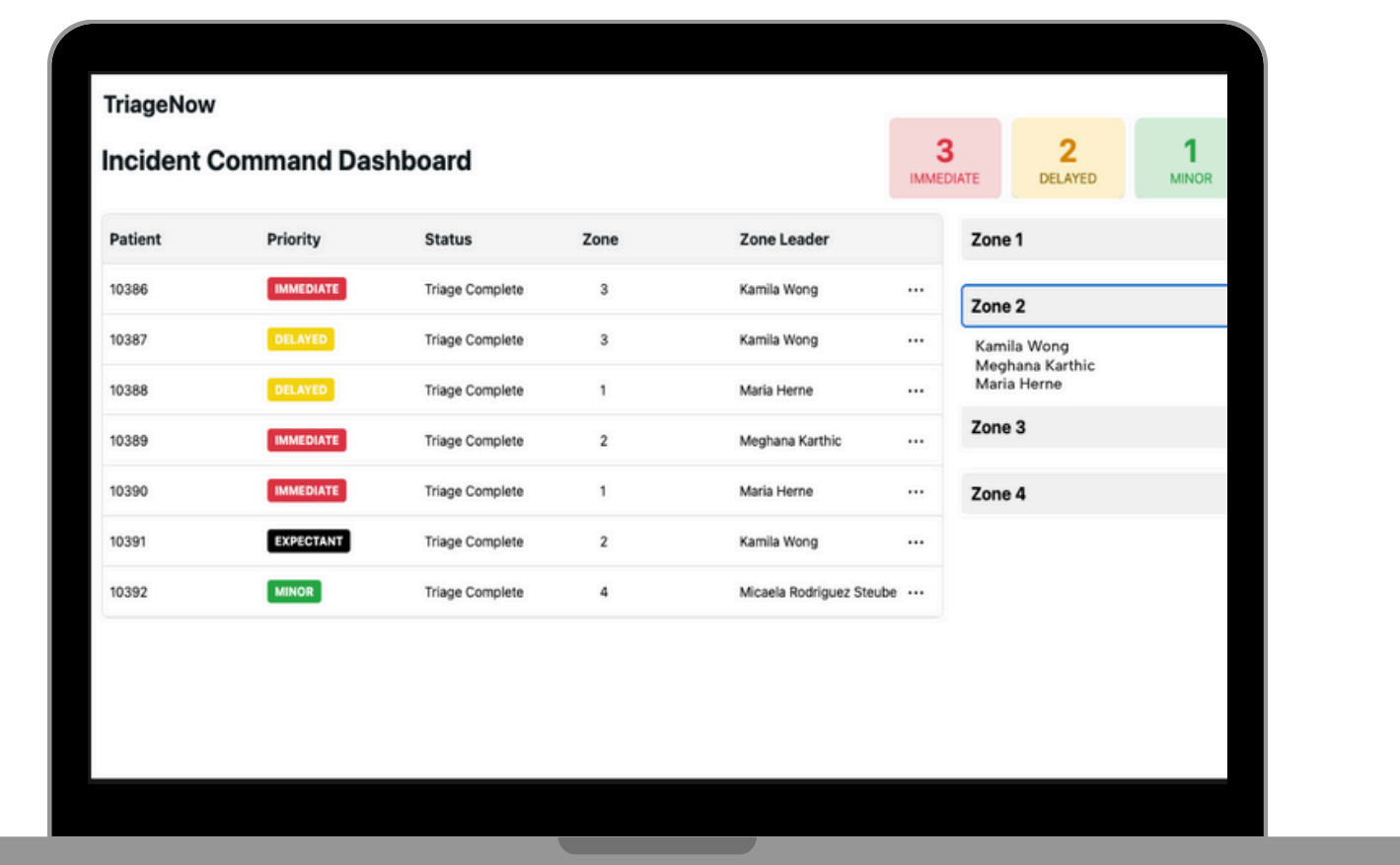
### 2 AI-Powered Documentation Flow Diagram



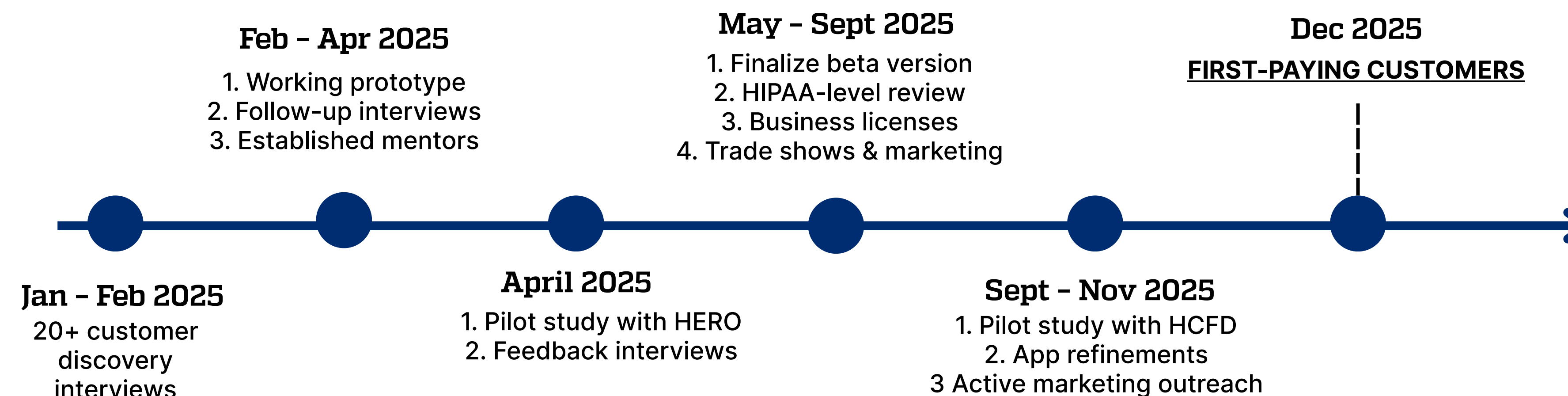
### 3

#### Incident Commander Dashboard

- View all patients in an incident
- See where EMS responders are working



## NEXT STEPS



## Conclusion

TriageNow aims to improve MCI emergency response with fast, reliable, and intuitive patient tracking. By digitizing communication and documentation, we're helping responders save lives when every second counts.

### KEY FEATURES

- Real-time patient tracking via barcode scanning eliminates outdated paper tags
- Hands-free, voice-enabled documentation keeps responders focused on patient care, not paperwork
- Centralized dashboard gives Incident Commanders real-time visibility to streamline decisions and resource deployment

### OUR VISION

We will pilot TriageNow with our EMS partner in Baltimore, with plans to scale nationally across 23,000 EMS agencies. Our goal is to make TriageNow the new standard in MCI response, maximizing lives saved.