



Localized Disaster Volunteer Coordination Platform

Deliverable-III

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Introduction

The Problem:

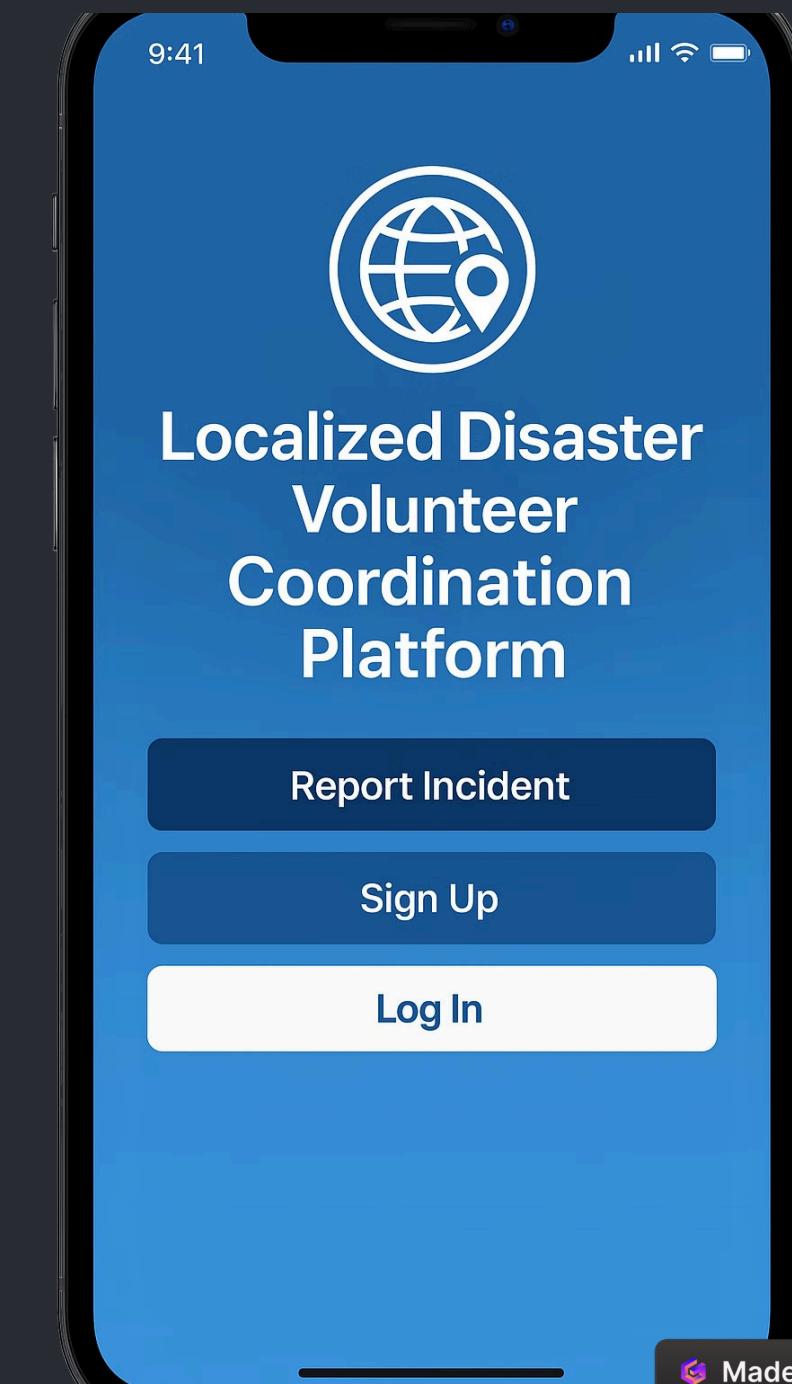
During natural disasters and emergencies, volunteers are available but often uncoordinated. Communication breakdowns and lack of real-time visibility lead to delays in response and inefficient resource distribution.

Current Issues:

- Manual coordination via calls and spreadsheets
- Mismatched or duplicated volunteer efforts
- Delayed aid and unbalanced resource allocation

Our Solution:

A centralized digital platform that connects victims, responders, and verified volunteers through real-time AI verification, automated alerts, geolocation tracking, and communication tools to automate volunteer coordination during disasters.



Market Justification: Target Audience

Target Users



Volunteers



NGOs



Educators/Trainers



Government Authorities



Disaster Victims



Main Users

- **Volunteers** – Matched by skill, availability, and location.
- **NGOs** – Coordinate tasks and ensure efficient deployment.
- **Educators/Trainers** – Upskill volunteers through integrated modules.
- **Government Authorities** – Monitor and manage relief operations.
- **Disaster Victims** – Receive aid and can assist locally.



Target Stakeholders

- NGOs and emergency relief organizations
- Government disaster response agencies
- Local certified volunteers and first responders



Opportunity & Relevance

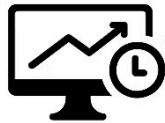
- Over 500+ major disasters occur globally every year, affecting millions.
- Existing systems lack real-time volunteer deployment coordination.
- Our platform fills the gap with a **scalable, skill-based, and location-driven approach**.



Competitor Gaps & Value



Volunteer Training



Live dashboards, real-time updates



Provide disaster-specific features

Market Justification: Competitor Gaps & Value

Competitor	Gap	Our Solution
ReDI by Galaxy Digital	No training modules	Built-in volunteer training & upskilling
Crisis Track	Weak real-time analytics	Live geolocation dashboards, automated real-time updates
Vision Link	High customization cost because of manual operation	Cost-effective modular system with AI analytics
Zelos	Built for general volunteer tasks,	Provide disaster-specific features.

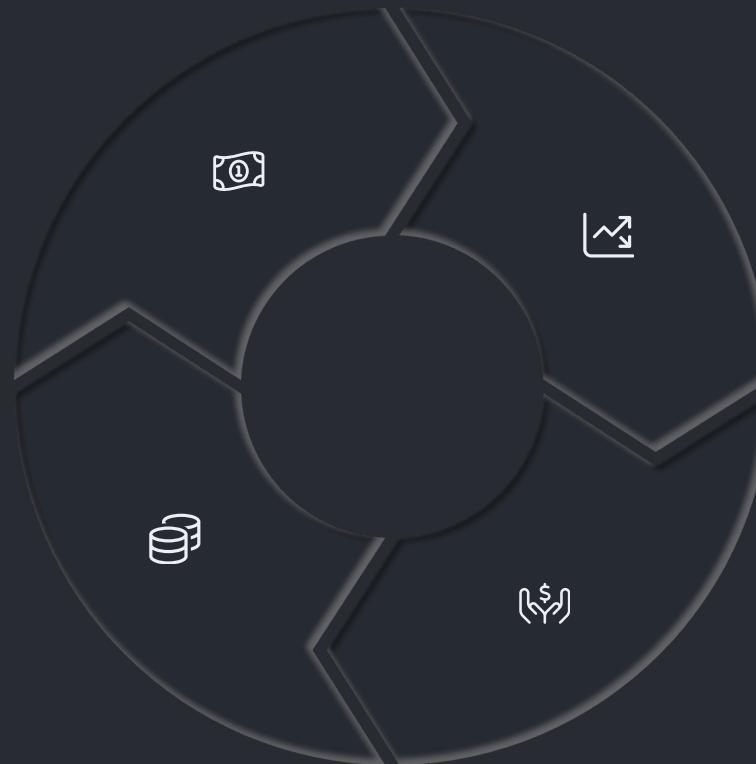
Feasibility & Viability – Economic

Short-Term Cost

Development, infrastructure setup, and outreach/marketing to NGOs and agencies.

ROI Strategy

Small service fees + grants support long-term operation and gradual improvement.



Long-Term Cost

Sustainable maintenance, feature updates, and scaling to more regions and users.

Revenue

NGO subscriptions, government relief funding, CSR -backed private partnerships.

Feasibility & Viability – Operational

Operational Benefits

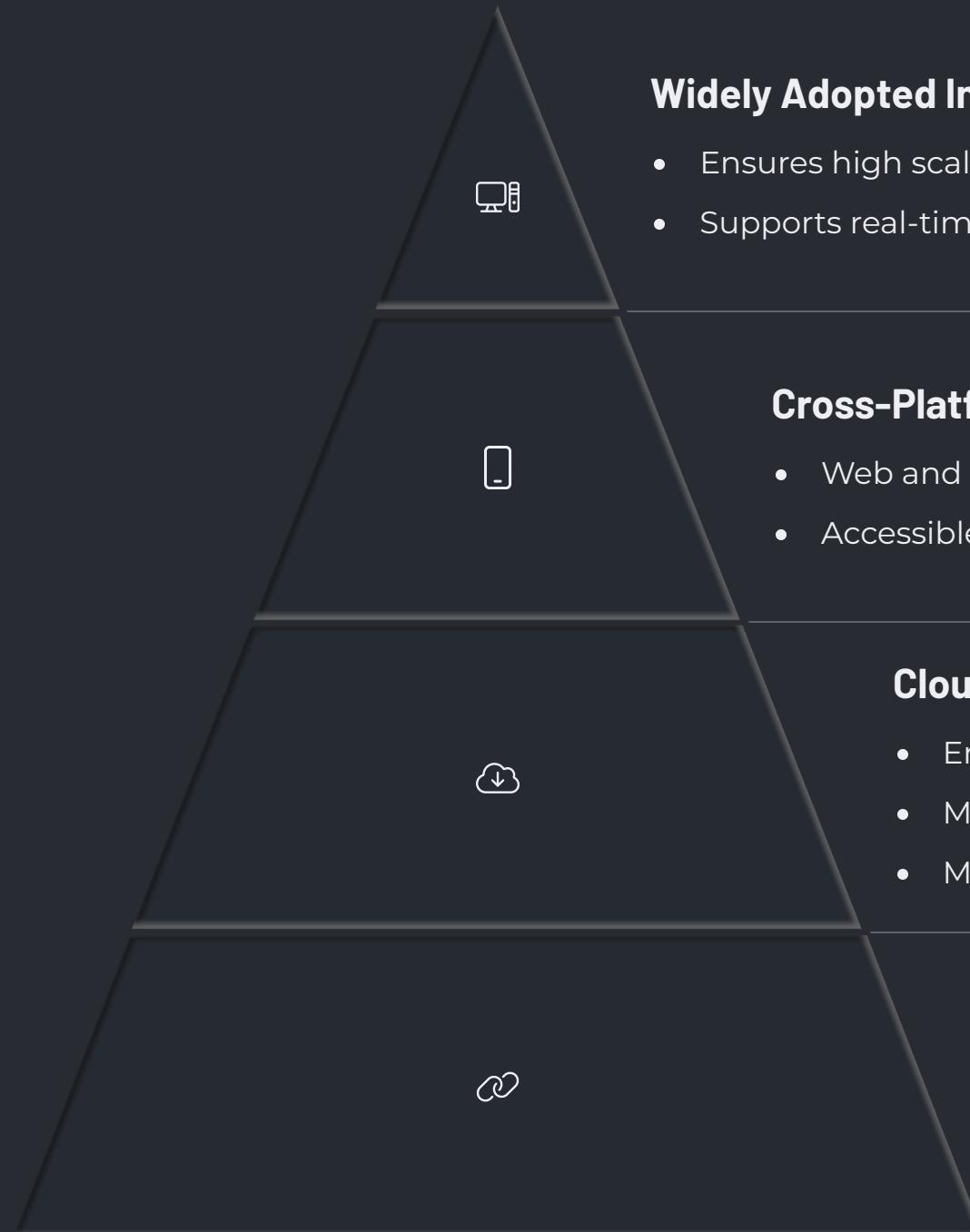
- Real-time task assignment, communication, and location-based deployment
- Seamless coordination between volunteers, first responders, and authorities
- In-app messaging, alerts, and live status updates
- Transparent volunteer activity logging and performance tracking

Change Management & Volunteer Engagement

- Pilot testing and user onboarding support
- Built-in reward and recognition system
- Encourages long-term engagement and volunteer morale during relief efforts



Feasibility & Viability – Technical



Widely Adopted Industry Tech Stack

- Ensures high scalability, security, and availability
- Supports real-time disaster coordination with low latency

Cross-Platform Architecture

- Web and mobile compatibility (browser + apps)
- Accessible on phones, tablets, and wearable devices

Cloud Infrastructure & Microservices

- Enables real-time data processing
- Maintains performance during peak disaster response
- Modular services = easier scaling and future upgrades

Third-Party API Integration

- Google Maps, messaging, and payment gateways
- Reduces development overhead
- Enhances location & communication functionality



Solution Highlights



AI-driven skill-task matching

Automatically assigns volunteers to tasks based on their skills and location



Bystander emergency reporting

Allows anyone to report emergencies quickly and accurately



Volunteer badges, ranks, and leaderboards

Gamification elements to increase engagement and retention



Multilingual, inclusive UX

Accessible to diverse populations regardless of language or ability



Admin panel for NGOs/government

Comprehensive management tools for response coordination



SOS via phone power button

Quick emergency activation for immediate response

Prototype - Frontend Design

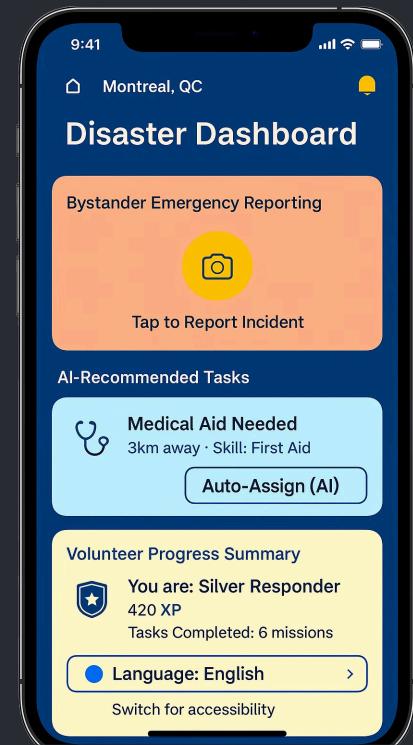
Application Login Page



User Profile Page



Application Landing Page



- Separate login options for stakeholders and general users to ensure role-based access and functionality.

- Displays user skills, location, and real-time chat for seamless communication and geo-targeted deployment.

- A centralized dashboard offering emergency reporting, AI-recommended tasks, and accessibility-focused controls.

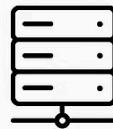
Risk Management



Low volunteer participation



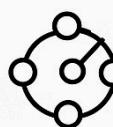
Misinformation or false alerts



Server overload during disaster



Data security concerns



Use of encryption, secure logins, and role-based access

Risk Management

Risk	Mitigation Strategy
Low volunteer participation	Partnerships with NGOs, universities, and community groups
Misinformation or false alerts	AI validation, report rating system and a user reputation system to reduce false reporting.
Server overload during disaster	Scalable cloud-based infrastructure
Data security concerns	Use of encryption, secure logins, and role-based access

Project Plan

Project Initiation (March)

Defined the project scope, identified key stakeholders, and established clear project objectives.



Development Phase (April–August)

Built core modules for web and mobile applications, integrated GIS, analytics, multilingual support, and connected cloud services.



Project Closure (August–September)

Finalized client approvals, completed deployment handoff, and documented maintenance and support procedures.

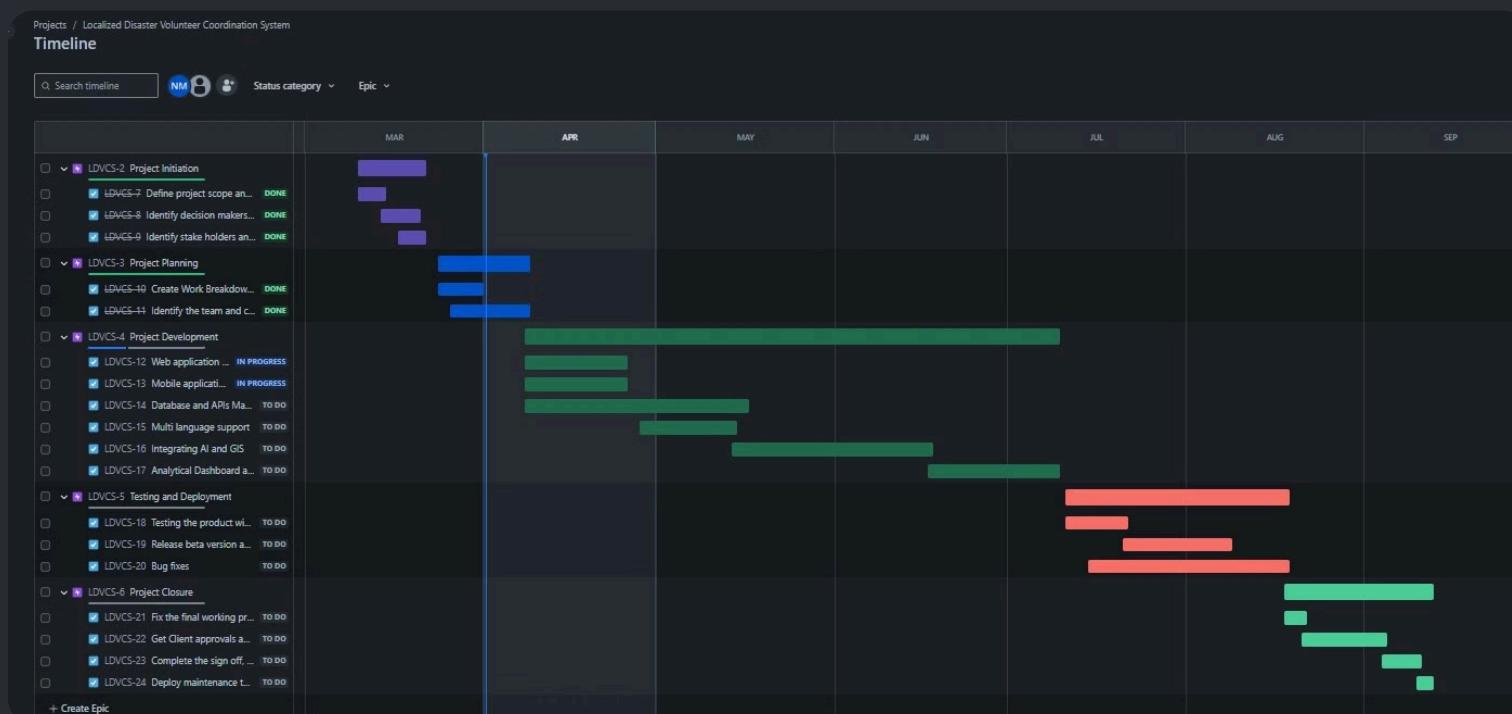


Project Planning (March–April)

Developed a detailed Work Breakdown Structure (WBS) and assigned team responsibilities for all upcoming phases.

Testing & Deployment (April–August)

Conducted functional testing, resolved bugs, and prepared a stable beta version for partner deployment and feedback.



Budget Breakdown

Total Budget: \$1.1 Million

Our project funding allocates resources across five critical phases to ensure successful delivery of the volunteer coordination platform.

Cost Categories:

1. Project Initiation - \$ 275,000 – Includes project planning, preparing initial documents, scope and assigning PM.
2. Development - \$ 495,000 Development of web and mobile application with data management GIS and APIs integration.
3. Testing - \$ 220,000 Performing unit test, integration test, user acceptance and other relevant tests.
4. Marketing and other expenses - \$ 110,000 Advertising the product, majorly the process is outsourced in our case.
5. Maintenance - \$ 110,000 Technical support and software maintenance.

45%

Development

Largest allocation for core platform functionality and integrations

25%

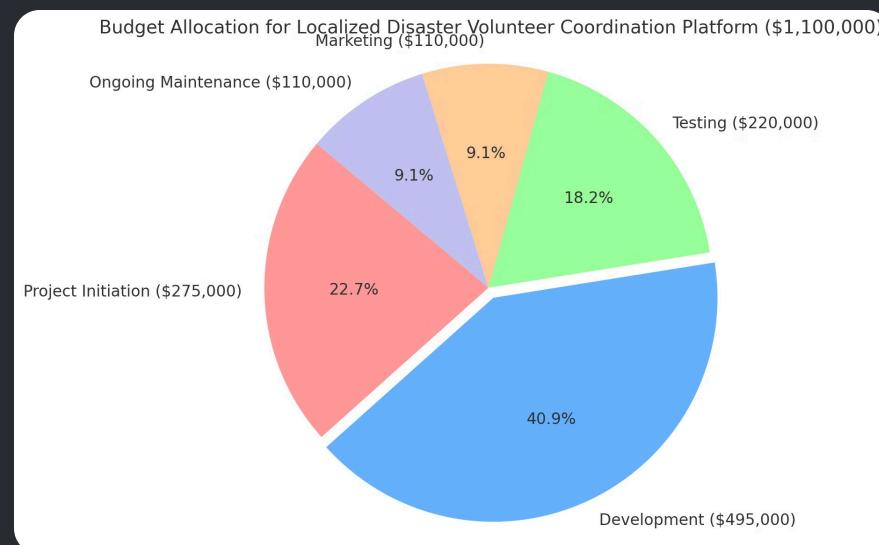
Planning

Critical foundation for project success

20%

Testing

Ensuring reliable performance during emergencies

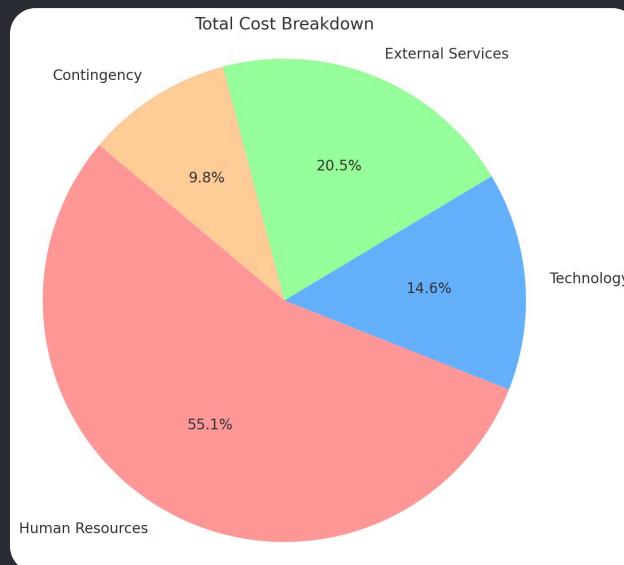


Budget Allocation for Resources

Resource Category	Allocation	Details
Human Resources	\$564,673	14 team members including PM, developers, data specialists, QA, and support
Technology	\$150,000	Software licenses, servers, and development tools
External Services	\$210,000	Consultants, cloud services, GIS, APIs, and marketing
Contingency	\$100,000	~10% reserve for scope changes and unforeseen challenges

Our budget strategically balances human talent with technology investments. The largest allocation supports our skilled team, ensuring we have expertise across all platform components.

The contingency fund provides flexibility for requirement changes and potential resource adjustments throughout the disaster volunteer platform development.



Conclusion

Summary:

- A timely, skill-based volunteer coordination system for disaster response
- Empowers victims, first responders, and NGOs with real-time support
- Technically, operationally, and economically feasible
- Designed for sustainability with modest long-term growth potential

Call to Action:

- Let's begin pilot testing with NGO partners to validate real-world performance.
- We invite stakeholder feedback to refine and scale the platform.
- Support us in building a faster, smarter disaster response network.

