



Mukto Mesh Stay Connected When They Cut the Cord

Offline-first crisis communication for internet blackouts—built for Bangladesh, designed for the world.



THE PROBLEM

July 2024: The Kill Switch Was Flipped

- **Families cut off from missing members**
No way to confirm safety or coordinate rescue.
- **Rumours replaced verified news**
Misinformation spread unchecked across communities.
- **Medical aid became unreachable**
Emergency services collapsed without coordination channels.
- **The kill switch silences everyone**
A single decision disconnected millions overnight.



WHO IT AFFECTS

Anyone Cut Off From the Grid

Civilians during political unrest

Protesters, journalists, and activists lose all digital voice.

Communities hit by natural disasters

Floods and cyclones destroy infrastructure without warning.

Those under military crackdowns

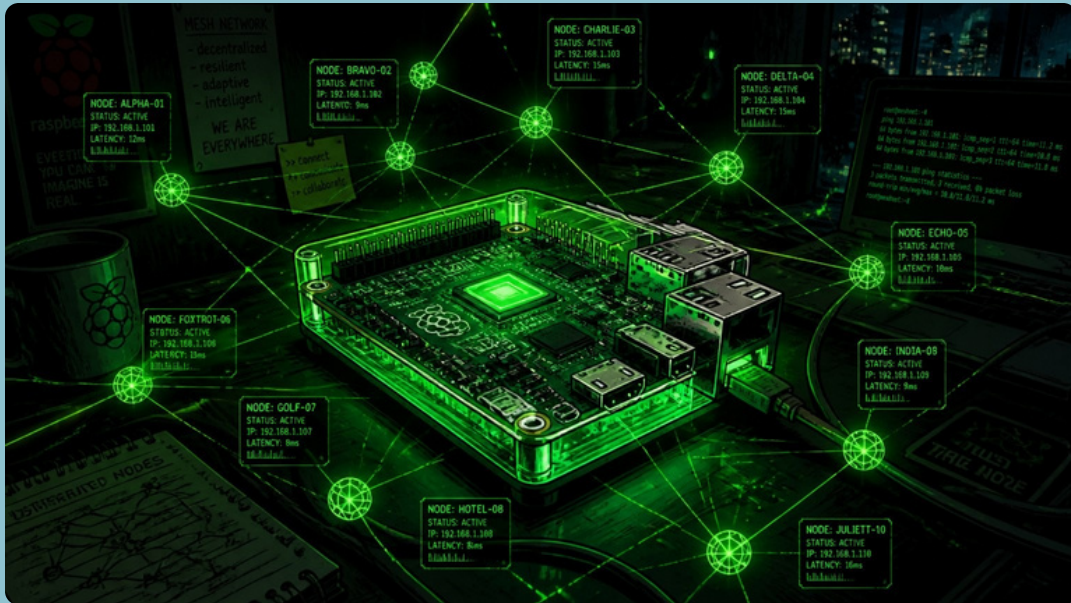
Authoritarian shutdowns target dissent with surgical precision.

It matters the moment the internet dies

Preparedness is the only defence against sudden blackout.

THE SOLUTION

Mukto Mesh



A portable crisis server running on any laptop or Raspberry Pi
— no internet required.

Users connect over local Wi-Fi — phones, tablets, any browser.

No Internet

Fully offline operation

No Cloud

Zero external dependency

No Authority

Decentralised by design

ARCHITECTURE

One Machine. One Port. Two Minutes.



01

Hono.js Server + React 19 PWA

Lightweight, fast, browser-accessible interface.

02

SQLite + WebSocket Real-Time Messaging

Persistent data, instant local communication.

03

Docker Container Deployment

One command. Any hardware. Fully operational.



CORE FEATURES

Communication That Cannot Be Silenced



4-Channel Real-Time Chat

General, emergency, coordination and medical channels.



Live Online User List

See who is connected in your local mesh.



Dead Man's Switch

Check-in system with SMS alerts if you go silent.



Missing Persons Board

Photo uploads to locate and reunite families.

EXTENDED FEATURES

Maps, News & Knowledge — All Offline



Offline Vector Map of Bangladesh

Pin shelters, danger zones,
and medical points.

RSS News Aggregator

Prothom Alo, Daily Star,
BDNews24 — cached
offline.

Offline Knowledge Base

First aid guides and legal
rights reference.

Multi-Node Peer Sync

Nodes sync data when in
range — network grows
organically.



TECH STACK

Built With Modern, Resilient Tools



React19 · TypeScript

Modern frontend, type-safe throughout.



Hono.js · SQLite · WebSocket

Ultra-lightweight server with real-time persistence.



Tailwind CSS · Protomaps

Responsive UI with offline vector mapping.



Docker · Cloudflare Workers

Portable deployment, edge-ready architecture.



IMPACT

The Network Is the People

0

Cloud Dependency

No external servers. No single point of failure.

0

Ongoing Cost

Free to run. Free to deploy. Free to share.

∞

Resilience

One machine creates a network. No government can seize it.



No government can seize a server that doesn't exist — the network lives in the hands of the people.



Open Source. Fork It. Run It. Share It.

MuktoMesh belongs to everyone who needs it. Deploy it before the blackout. Share it with your community. Improve it for the next crisis.

[View on GitHub](#)

[Fork the Project](#)

github.com/HyperZx20/mukto-mesh