

Networked Aerial Base Stations for Enabling Emergency Communications During Disaster Recovery

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Project Overview

Provide an integrated solution that includes a Deployable Communication System (DCS) and an Incident Command System (ICS) that can be interfaced with a City's Emergency Management System.

Challenges

Breakdown of communications systems: During and immediately after disasters it is very common that communication capabilities face limitations due to network congestion, physical damage of network devices and interruption of supporting network infrastructure.

Lack of situational awareness: First responders might find it difficult to locate trapped victims which can hamper rescue efforts due to lack of synchronized operations among the first responders and decision-makers.

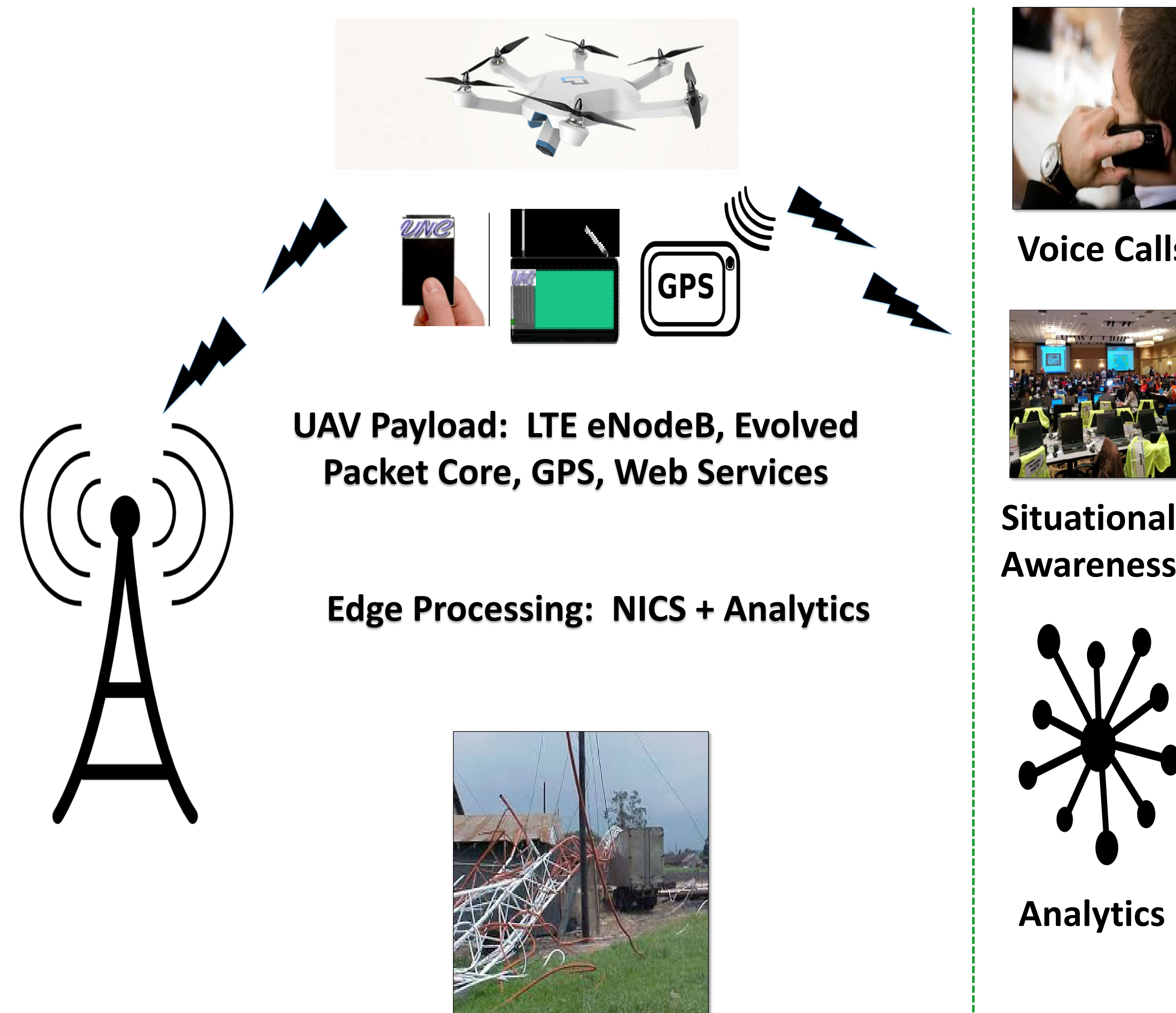


Figure: Integrating an aerial base station with public safety infrastructure

Solution

Integrated solution consisting of Deployable Communication System (DCS) and Incident Command System (ICS) provides the situational awareness required for efficiently coordinating the relief operations during emergency management and disaster recovery.

Deployable Communication System (DCS)

The DCS component enables cellular/wireless communications to meet the demand of connectivity immediately after the disaster.

Incident Command System (ICS)

The ICS component provides virtual collaboration among the participants including the first responders and the decision makers.

Key Performance Indicators

Availability and quality of communication links established by the deployable system as observed by the end users.

Project info

NSF Award: 1622978

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