



ASPEN TECH
POLICY HUB

PROJECT



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HALP: The Helpful Alternative Link Protocol (HALP)

Keeping the public connected during cell service outages using cell phone-powered mesh networks

EXECUTIVE SUMMARY

When disaster strikes, reliable and easy-to-use communications become absolutely critical for pairing those in distress with assistance providers. However, recent fires, earthquakes, and hurricanes have shown that the cellular networks our society has come to rely on are prone to fail in the wake of disasters. Having both resilient cell networks and a backup option is critical to the safety and security of the United States. The Helpful Alternative Link Protocol (HALP) aims to improve the networks we currently have, and provides a fallback network if primary carriers fail. HALP uses LTE cellular bands for last-mile mesh communications so citizens can communicate if existing cell services fail.



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THE PROBLEM

Recent natural disasters in the United States, including the California wildfires and hurricanes in the Southeast, have shown how fragile our cell networks can be in critical situations. In these disaster scenarios, it becomes even more important for telecommunications to remain intact so the public can remain connected to first responders and to one another. Currently, there is no infrastructure that allows the public to remain connected even if cellular service fails.

” *Recent fires, earthquakes, and hurricanes have shown that the cell networks our society has come to rely on are prone to fail in the wake of disasters.*

THE SOLUTION

The HALP project proposes that governments and telecommunications companies create a public safety network that can be used for communications if cell service fails in the wake of a disaster. The project envisions turning unused spectrum into bands that can be used without cell phone connectivity. The HALP proposal has three main objectives: (1) to allow anyone to connect to any cellular network during times of emergency; (2) to reclassify cell carriers as public safety systems in times of emergency; and (3) to enable phones to communicate to other phones close to them through a “walkie talkie”-like system if cell networks fail.

ABOUT THE HUB

The Aspen Tech Policy Hub is a Bay Area policy incubator, training a new generation of tech policy entrepreneurs. We take tech experts, teach them the policy process, and support them in creating outside-the-box solutions to society’s problems.

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