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ON WHEELS

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Internet Society Foundation

Wireless for Communities

MOBILE COMM CENTRE



All Terrain 24x7 Emergency Communication Vehicle for #Remote Locations #Rural Areas # Unreached #Unconnected #Underserved #Meaningful Connectivity #Disaster Situation

Through #Satellite #VHF Relay #HF Communication #Long Range WiFi #GSM

Access to information is a basic right for every citizen and Digital Empowerment Foundation works towards providing this access by connecting remote communities to the Internet through its Wireless for Communities initiative across more than 250 locations in India. Wireless for Communities or W4C aims to connect rural and remote locations of India. W4C involves line-of-sight and low-cost Wi-Fi equipment, which utilise the unlicensed spectrum bands to create community owned and community-operated wireless networks in rural and remote locations of India to democratise access and make it available to all.

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We are collaborating with Internet Society Foundation to reach out to 10 disaster prone areas, areas that are marginalised, that are unconnected, that are geographically marginalised due to weather conditions and have been kept away from access to rights through this mobile comm centre.



MOBILE COMM CENTRE

Our advanced emergency communication vehicle addresses the challenges of unconnected, digitally marginalized areas that lack sufficient infrastructure due to the need for spectrum, right of way, and a critical mass of subscribers. These regions, often seasonal in nature like mountainous areas or pilgrimage sites, face difficulties in maintaining permanent telecom infrastructure due to economic constraints. Additionally, during times of calamities, war, or other emergencies, telecom networks are highly vulnerable, as every link in the system is essential. Our vehicle provides a reliable solution, offering both data and voice connectivity in such areas, ensuring that communication remains intact when traditional infrastructure is compromised.

Osmocomm's open GSM software based telecom suite

HF Signals' open source hardware

The sBitx software defined radio core



SPECIALITIES

Satellite links with video, data as well as speech communications using geostationary satellite QO-100 with a 2.4 GHz uplink and 10 GHz downlink with a parabolic antenna.

VHF relay (repeater). Hand held walkie talkies have a direct range of less than 1 kilometer. The VHF relay repeater allows retransmission of the hand held radios to increase their range to 25 KMs radius.

HF communications. HF communications provide beyond line of sight communications in a radius of 600 KMs. HF communicates using short messages and voice.

Long range WiFi. Although Wifi is synonymous with the Internet, it is an independent local area high speed network that can span up to 50 kilometers between elevated points. These are very often crucial in providing Internet connectivity to remote areas.

GSM. The GSM network of the MCC is a small private cell phone network unconnected to the global telecom system that allows all the phones in the area to connect with each other and communicate in the absence of a regular cellular network coverage.

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