

PRIVATE SECURITY, CARIBBEAN

MESH POP-UP NETWORKS ENABLING
ANTI-HUMAN TRAFFICKING OPERATIONS



OBJECTIVE

Enable ATAK use over the mesh network in a mix of rural and urban environments.

EQUIPMENT USED

Three PTT IP Mesh radios were 500mW RF power, with 0dBi gain, operating in L Band (1475MHz) at 5MHz bandwidth with ~5mbps throughput. Android smartphone connected to each radios WiFi.

USING THE RADIO WIFI NETWORK

RADIOS CONCEALED TO USE ATAK SOFTWARE ACROSS THE TEAM

A team of ex-Special Forces operatives, going under the name of Samurai, has focused their skills on the fight against human trafficking. Samurai operates in some very dangerous locations, including conflict zones in the Caribbean, Asia and Eastern Europe. Communications is a constant challenge in these environments, with access to cellular networks being very patchy and SATCOM being impractical.

Samurai approached Sovereign Systems for a solution to their operational communications needs, with the challenge being to set up an independent network, with no reliance on comms infrastructure, but delivering the ability to share ATAK on mobile phones, and a PTT Voice capability. In addition, the network needs to be encrypted and the radios need to operate at distance, range being an important consideration.

Sovereign Systems delivered their PTT Mesh radio, the world's smallest truly Hand-Held Mesh radio to Samurai's staging location in the USA. Gerry, and his team, had never used Mesh radios before and they were under pressure to deploy. The time zone considerations meant that support from Sovereign Systems European HQ was the more practical option, with Singapore being out of time sync during the times Gerry and his team were available.



After a few minor technical issues were resolved by the team in Dublin solely, Samurai deployed in to their operational zone.

Little was heard over the first week but when Gerry came back online with us his comments were “these radios are incredible, exactly as Mike talked them up to be”, with Mike being the initial Australian ex-SF member who made contact with Sovereign Systems. “From what I was cross trained on the ODA and knowing how repeaters work and mesh networks, this is the know all and be all and a great solution to our comms challenges.”

“We especially love the integrated GPS, and Wi Fi access point, so we can easily run ATAK natively in the local Mesh network without needing any external network access. We did not use the GUI provided by Sovereign as we did not have access to laptops or tablets, so we relied on setting up the network using just the LCD screen and keypad on the radios.”



“I have never seen a Mesh radio this small before and initially I doubted its capability with only a 500mW RF output but the ranges we are achieving are beyond our expectations.”

*Antenna showing for photo

CONCLUSION

As with all our trials, the capabilities of the radios exceeded the customers expectations.

"Safe to say, the team and I are very impressed and we intend to keep using these radios in future deployments."



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