

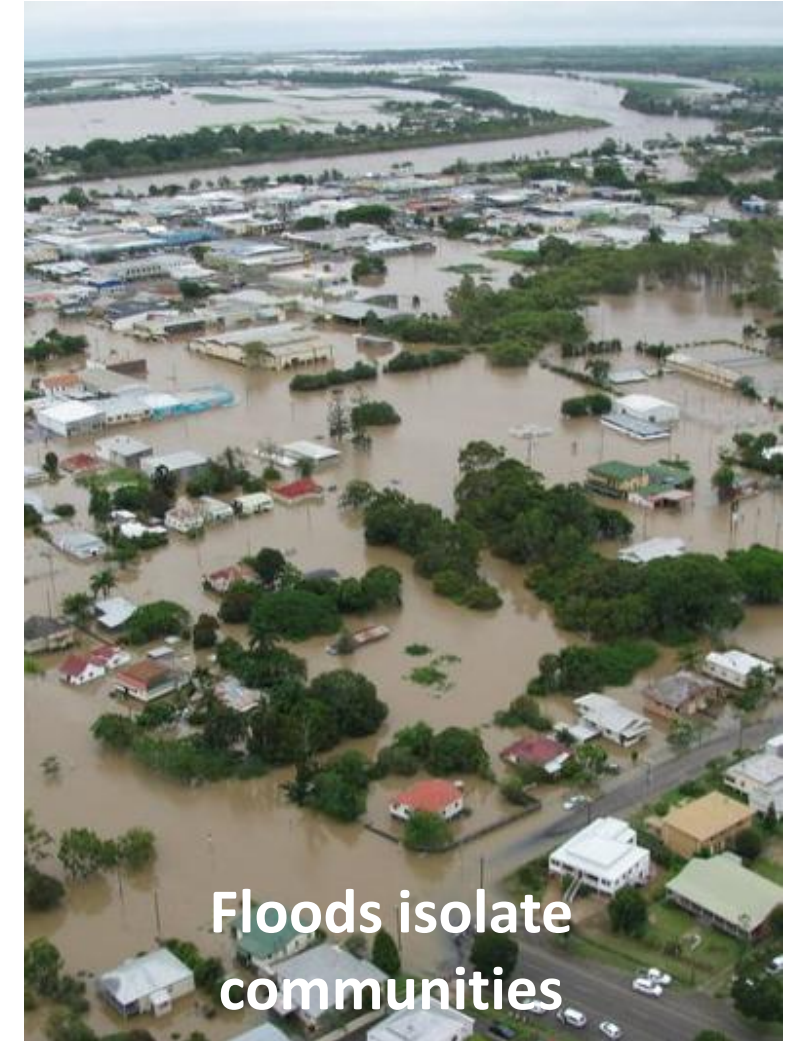
LRDR: The Resilience Layer When Everything Else Fails

26 March 2026

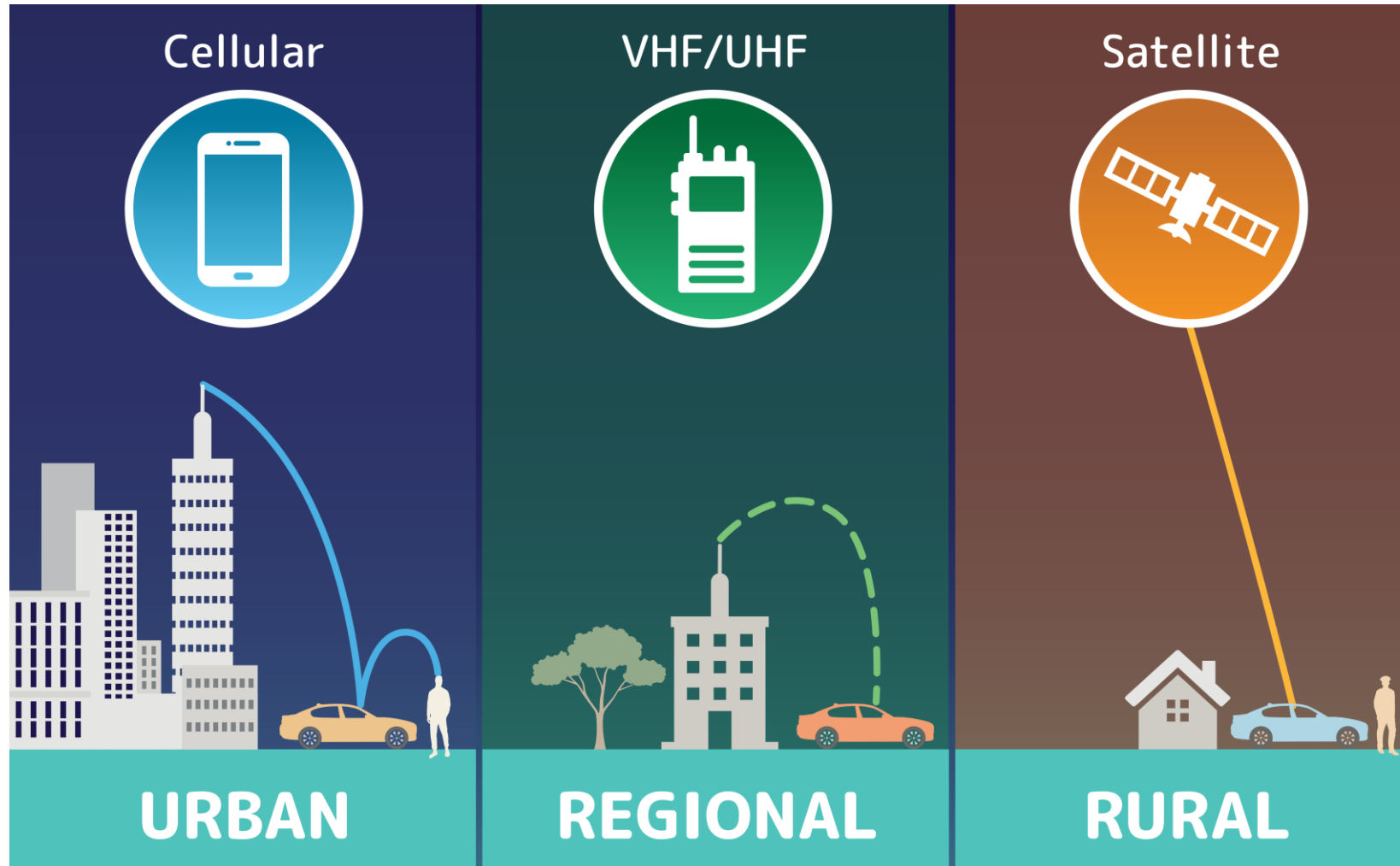
Presented by Robbie Huxley

Technology Failure or Architecture Failure?

Single network = single point of failure



The Problem with Single-Network Thinking



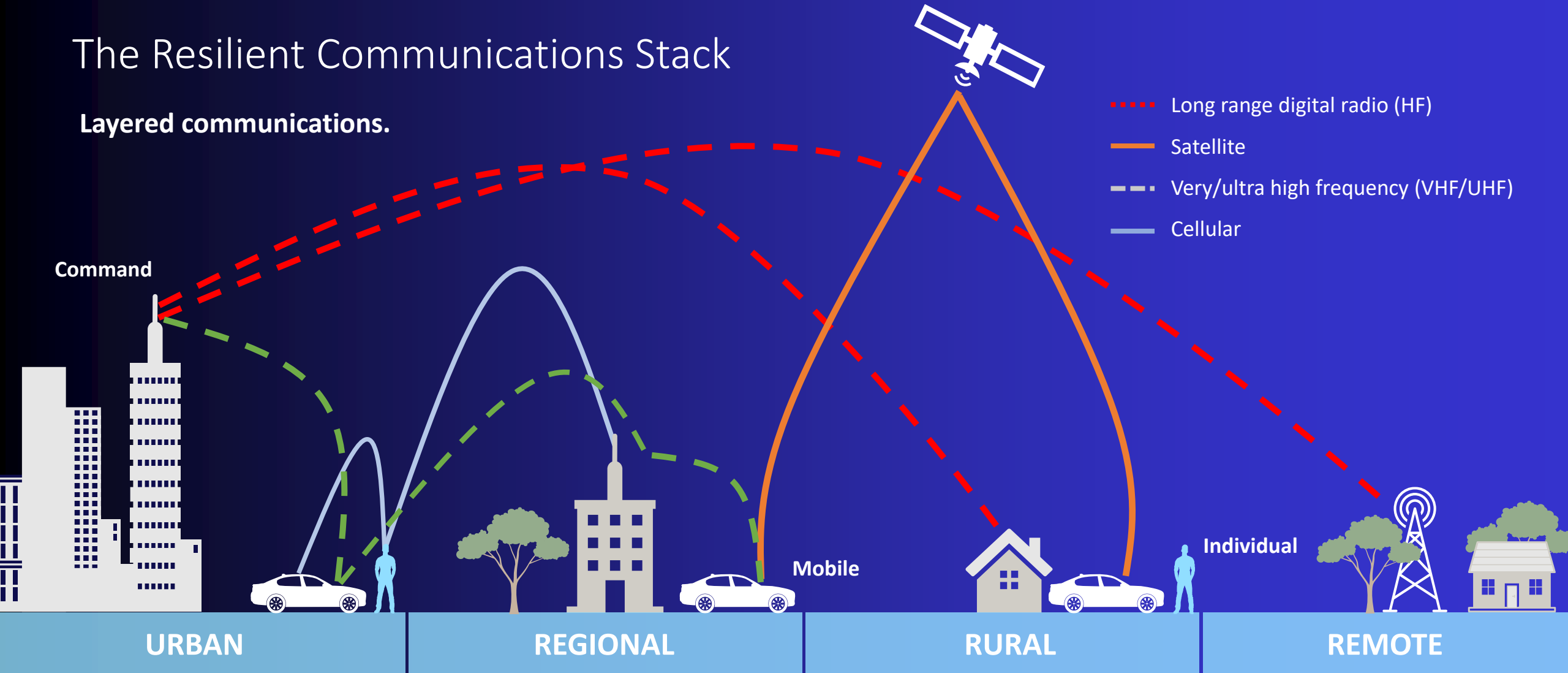
Single networks create single points of failure.

- Cellular only
- Satellite only
- Radio only

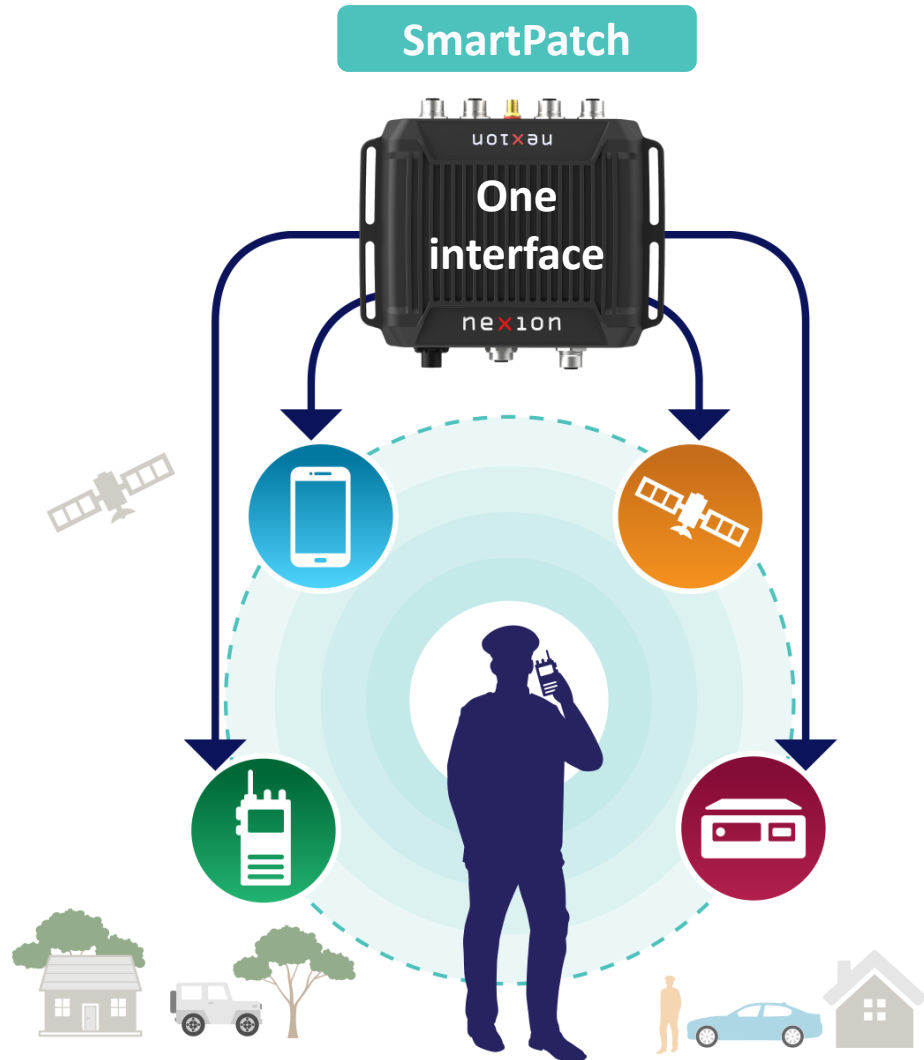
Resilience requires layers.

The Resilient Communications Stack

Layered communications.



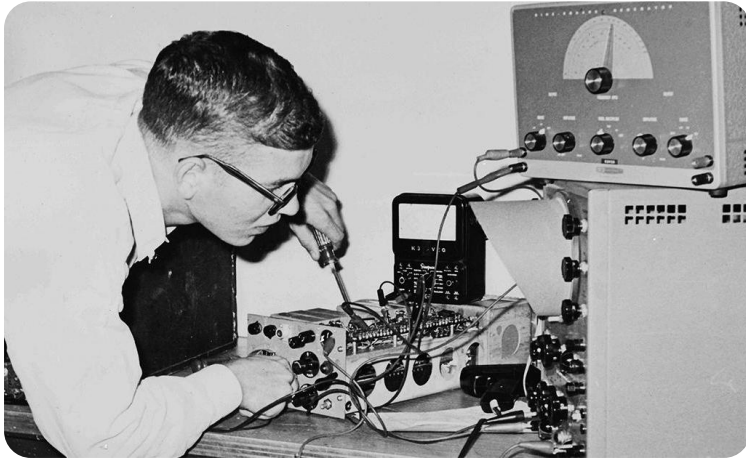
Architecture in Action: Connecting Every Layer



Interoperability.

- HF ↔ VHF/UHF ↔ Satellite ↔ LTE bridging
- Radio over IP
- Dispatch integration
- Cross-agency communication

HF Isn't Dead.



HF Analog Voice



Channel condition: (+16 db)

It Has Evolved.



HF Digital Voice



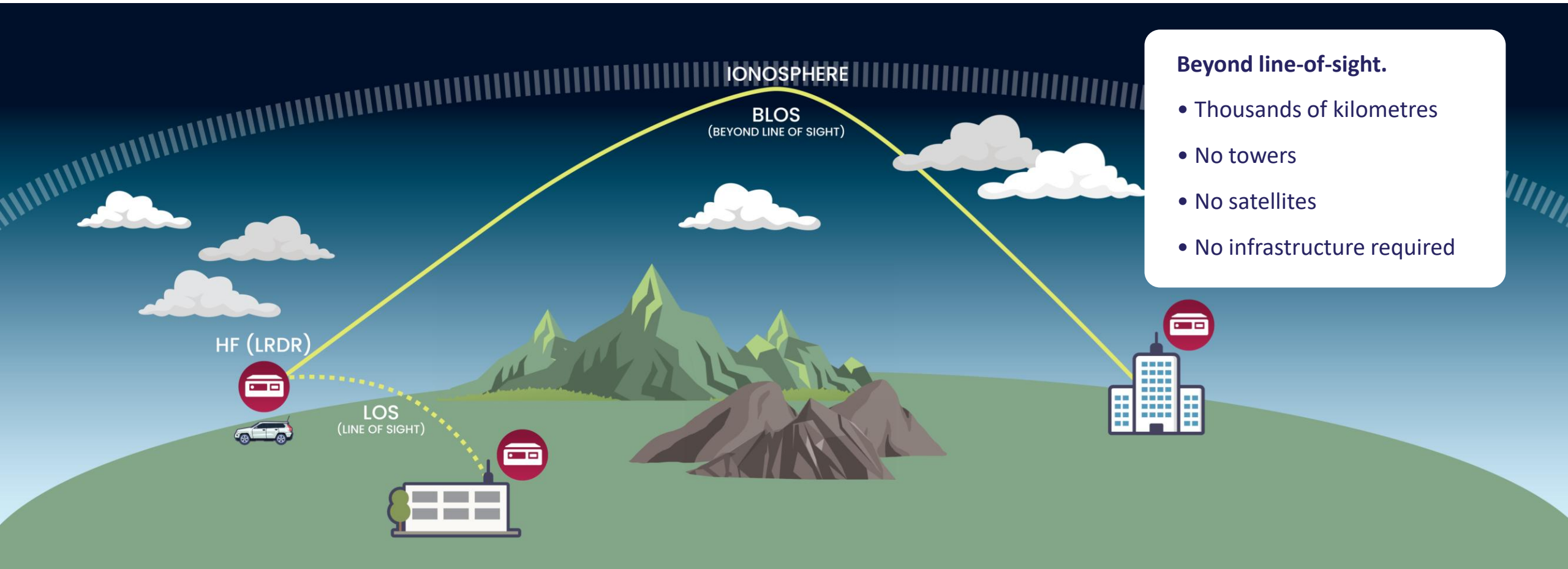
Channel condition: (+16 db)
2400 bps



Channel condition: (+6 db)
1200 bps

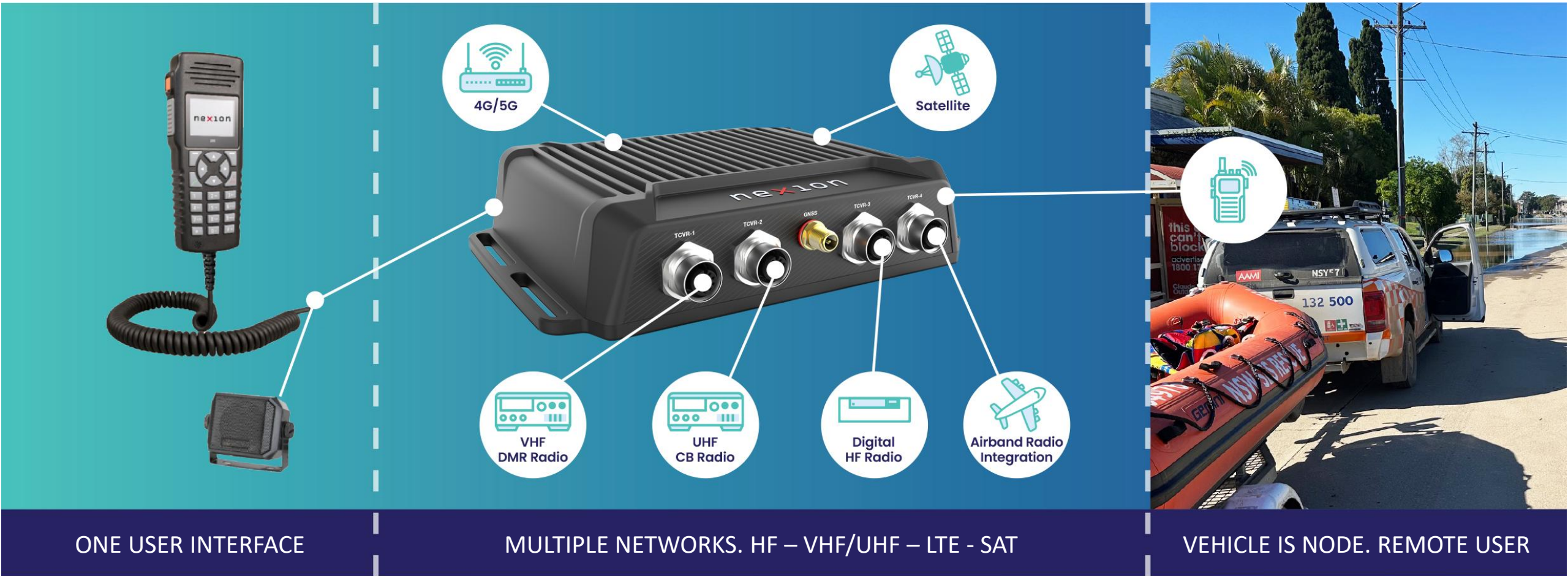
The Radio That Works When Nothing Else Does

HF is the only BLOS comms that requires no third-party infrastructure.



Long Range Digital Radio (HF) Alone Is Not the Solution.

Vehicle-as-a-Node. We combine them all. One interoperable, secure, and field-ready system.



Real-World Operational Impact

When infrastructure doesn't exist, communication still does.

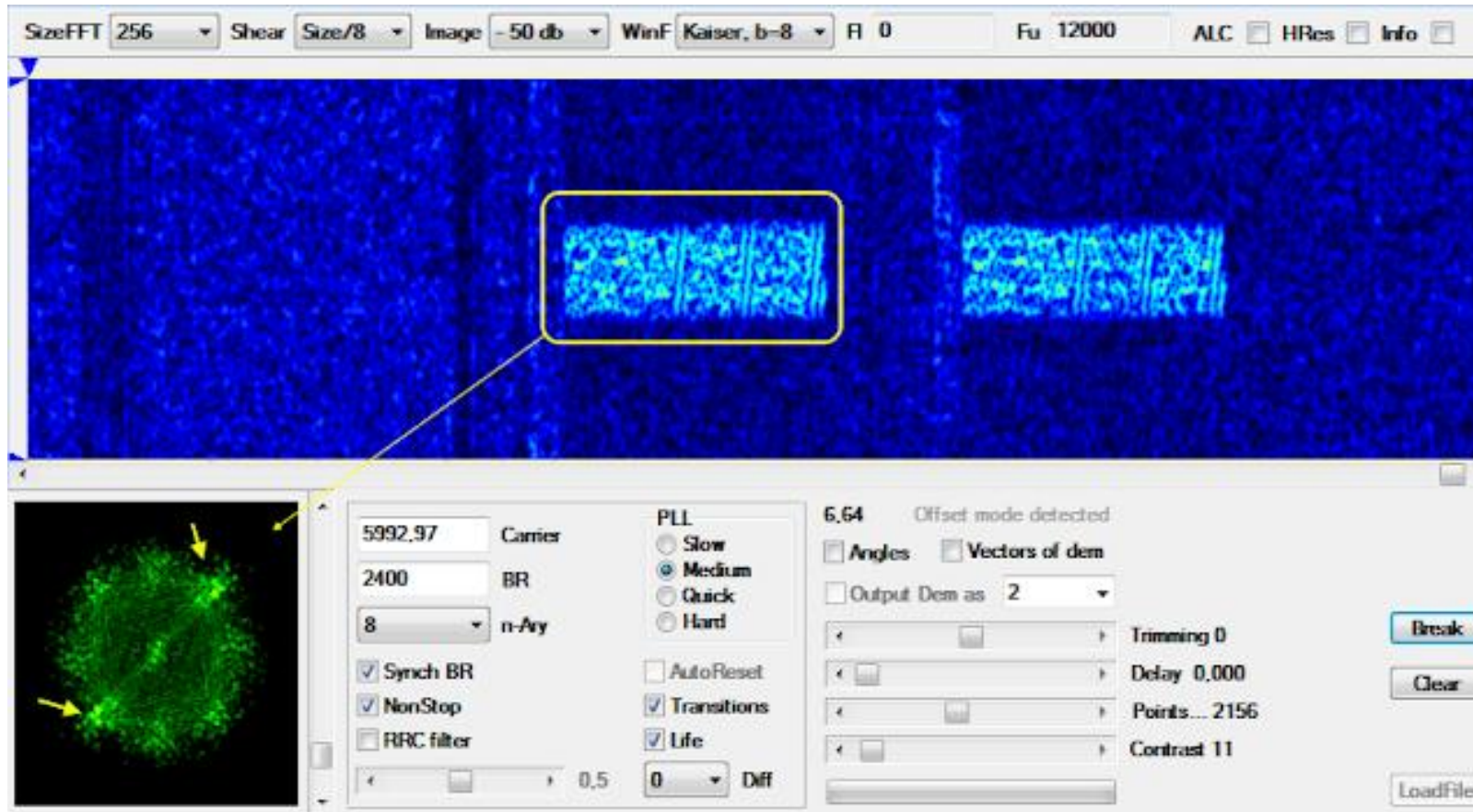


Operational deployments.

- Pacific island connectivity
- Cyclone response networks
- Remote mining operations
- Border protection communications

The Future of Resilient Communications.

From Voice to Adaptive Networks.



WALE / Wideband capability

HF uses larger chunks of spectrum, increasing speed, reliability, and resilience.

4G ALE — defined in MIL-STD-188-141D

Constantly scanning, selecting, and optimising the best path automatically.

Always-on concept

Shifting from check-in/call to an always-on, auto-linking network.

This is opening the door to IP data, command systems, even compressed video without infrastructure.



Who This Matters For

Resilience matters where infrastructure is fragile.

- Emergency services
- Remote industry
- Defence & border protection
- Remote communities



Resilient communications are layered communications.

HF is the layer that works when everything else fails.

