

# DISRUPTIVE RADIO TECHNOLOGIES

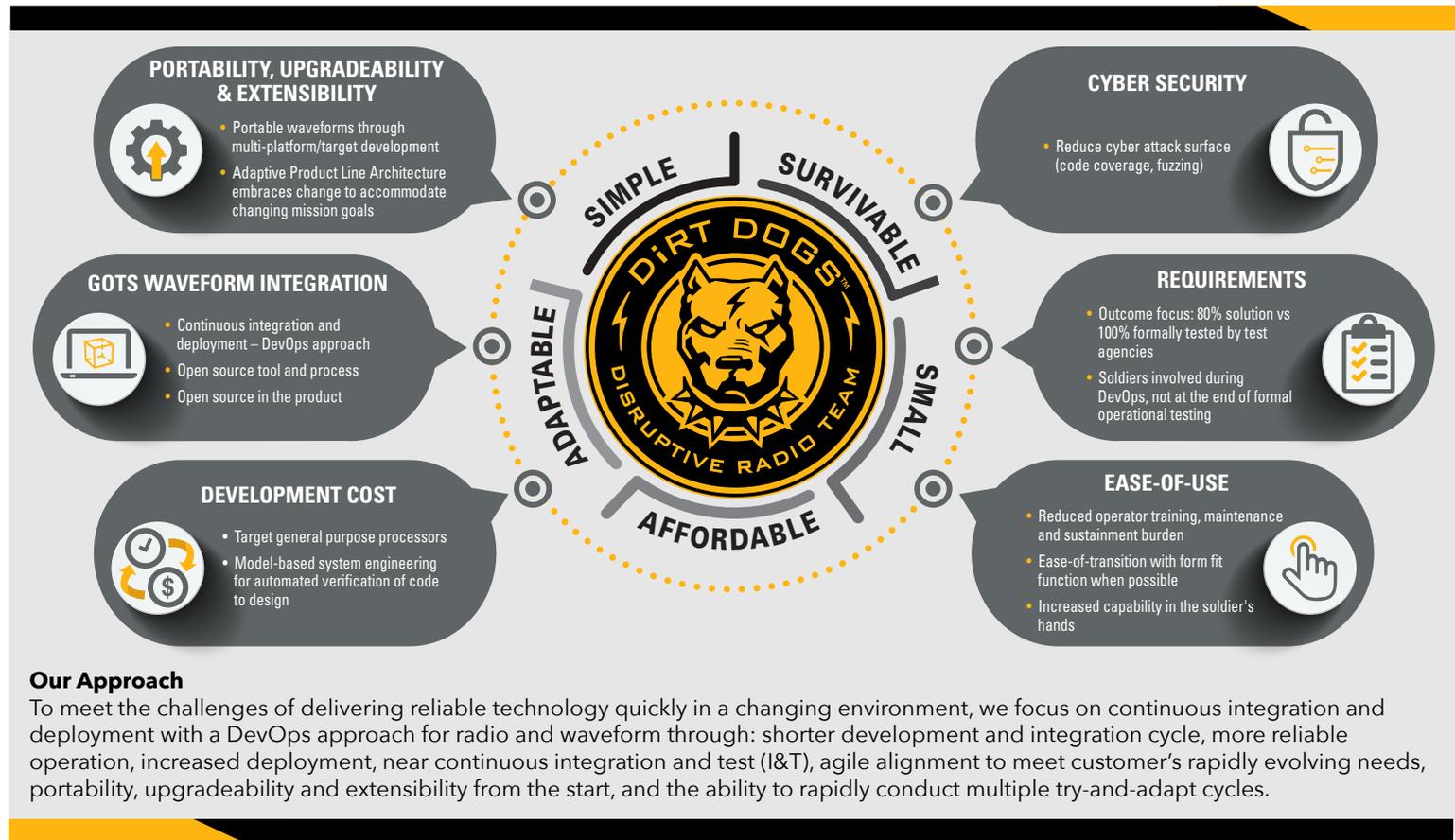


## Accelerating Future Radio Capabilities

In today's modern battlefield, the U.S. military needs to maintain networked communications in and under contested and congested electromagnetic spectrum environments. They need non-traditional waveforms and technologies that provide anti-jam, low probability of intercept, and low probability of detection. To respond to these needs, our experts build new radios and waveforms and quickly get them into the hands of soldiers.

## Custom-Built Small, Simple & Adaptable Radios

Waveforms for software-defined radios often cost too much and take too long. General Dynamics is quickly responding to warfighter needs by conducting rapid prototyping and testing services of key domain technologies that lead to affordable radio-waveform-network modernization. The DiRT DOGS™ Disruptive Radios Team is an innovative startup venture within General Dynamics Mission Systems that is organized to be focused, agile and responsive.



## Our Approach

To meet the challenges of delivering reliable technology quickly in a changing environment, we focus on continuous integration and deployment with a DevOps approach for radio and waveform through: shorter development and integration cycle, more reliable operation, increased deployment, near continuous integration and test (I&T), agile alignment to meet customer's rapidly evolving needs, portability, upgradeability and extensibility from the start, and the ability to rapidly conduct multiple try-and-adapt cycles.

## Proven Legacy of Software Defined Radios and Waveforms

Below is a sample of the radios and waveforms the DiRT DOGS personnel have developed and maintained.

### Software Defined Radios

- SPEAKeasyII - U.S. Air Force
- Digital Modular Radio (DMR) - U.S. Navy
- Cluster 5 (Handheld Manpack Small Form Factor (HMS) - U.S. Army
- Blue Force Tracking (BFT) 2.5 - U.S. Army
- Dismounted Distributed Tactical Beamforming System (D2TBS) - U.S. Army
- URC-300™ Line-of-Sight Transceiver

### Waveforms

- UHF SATCOM - U.S. Navy
- Mobile User Objective System (MUOS) - U.S. Navy
- Wideband Networking Waveform (WNW) - U.S. Army
- Blue Force Tracking (BFT) 2 - U.S. Army
- AM - Ground-to-Air



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