

Department of the Navy SBIR/STTR Transition Program

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Topic # AF071-072

Secure Wireless Access Points for Tactical Radios
DataSoft Corp.

WHO

SYSCOM: MARCOR

Sponsoring Program: Handheld Command and Control (H2C2)

Transition Target: PRC-117G

TPOC:

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Other transition opportunities: >

> PRC-152A radios

> PRC-154A radios

> Ground Soldier/Nett Warrior

> PRC-148B radios

> Samsung Business Partner for KNOX

Notes: RAP - Radio Access Point
CSfC - Commercial Solutions for Classified
Tactical Android devices
Secure Wireless Networking



DataSoft RAP attached to Harris PRC-117G radio.

WHAT

Operational Need and Improvement:

- > Untether COTS end-user devices (EUD) from tactical radios, e.g., PRC-117G
- > Connect multiple EUDs simultaneously to increase Warfighter productivity
- > Allow Secret (and below) communications over Bluetooth/WiFi without modifying factory Android OS
- > Ability to turn off/on Bluetooth/WiFi quickly when needed

Specifications Required:

- > Be NSA-approved to allow up to Secret-level classified communications
- > Work with unmodified COTS Android devices
- > Connect up to 5 devices simultaneously
- > Have ability to turn off all emissions in RF-denied environment
- > Utilize low-cost, light weight, low-power emerging technologies for short-range communications
- > Provide on-the-go USB port for wired connections

Technology Developed:

- > Secure wireless radio access points for PRC-117G radios, including Red and Black side versions
- > CSfC technology that meet NSA requirements
- > Modular design can easily be adapted to other tactical radios, e.g., PRC-154A, PRC-148B, PRC-152A
- > Performance management solution results in minimal overhead.

Warfighter Value:

- > Elimination of a tethering cable resulting in increased mobility and productivity
- > Multiple warfighters can access a tactical radio simultaneously to send/receive video and messages
- > Reduced size, weight, power, and cost
- > Ability to quickly and easily replace a EUD without complex software changes

WHEN

Contract Number: N68335-14-C-0181 **Ending on:** April 30, 2016

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Build 10 Red and 10 Black RAP devices	Low	Prototype Development Complete	5	October 2015
Obtain NSA Commercial Solutions for Classified (CSfC) Approval	High	RAP Approved for Secret and Below use	6	March 2017
Participate in JCTD Field Event	Med	Functional Demonstration during Field Events and Flight Tests	7	September 2017
System Evaluation at NIE	Med	Successful Formal Assessment	8	January 2018
Technology Transition	Med	Operational Fielding Begins	9	June 2018

HOW

Projected Business Model:

- > Royalty and Licensing Agreements with radio primes (Harris, Raytheon, Thales), international radio mfrs, and distributors
- > Partnership with EUD makers (Samsung, Motorola) to provide secure connectivity solutions to civilian agencies and commercial customers
- > IDIQ production contracts with govt. and primes
- > Firm Fixed Price & T&M contracts from radio primes and govt. customers for customization

Company Objectives:

- > Provide affordable technology to warfighters under Trusted Handheld (TH2) and Nett Warrior (NW) programs
- > Expand use of modules and embedded software for secure Internet-of-Things (IoT) applications both in defense and commercial industries
- > Reduce Development Costs and Time-to-Market by leveraging extensive experience in SDR, SATCOM, and C4I systems.
- > Ensure long-term success by developing new products and technology, and customizing them thru engineering design services
- > Develop solutions that can be exported

Potential Commercial Applications:

- > Highly secure gateways for Industrial IoT applications
- > Connectivity solutions for Public Safety, Law Enforcement, and DHS radios
- > Connectivity solutions for in-car systems for the automotive industry
- > Connectivity solutions for medical devices

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