

Securing Tactical Systems, Platforms and Networks

Enabling Assured Information Sharing and Protected Communication Throughout the Battlefield



Tactical environments and platforms, whether military or government, demand reliability, effectiveness, and high degrees of security. General Dynamics C4 Systems has been building secure and effective tactical mission systems and networks for more than 40 years. Our Platform Security Solutions and Information Assurance (IA)-enabled products secure systems and communication networks used by warfighters, first responders, investigators, and government agencies worldwide to ensure the secure flow of information.

System Security Engineering: We architect and implement secure legacy and net-centric tactical systems and networks that meet robust protection requirements and stringent operational needs. Our expertise to define, design, and defend is equally applied to tactical mission systems and networks. We use the best-in-class tactically focused products, technologies, and techniques available today. We are CMMI® Level 5 certified and we have a dedicated team of engineers who are Certified Information Systems Security Professionals (CISSP) and Information Systems Security Engineering Professionals (ISSEP). Our experience with Certification and Accreditation (C&A) processes and authorities reduces your C&A risk.

General Dynamics High Assurance Open Scalable Technologies (G.H.O.S.T.): General Dynamics High Assurance Open Scalable Technology (G.H.O.S.T.) is a suite of high-assurance, trusted, network-encryption technologies that deliver multi-domain and cross-domain solutions, policy-based management technology for managing the GIG enterprise, and comprehensive security architectures with integrated IA solutions for accreditation of high assurance systems.

Tactical mission systems are driven to reduce Size, Weight, and Power (SWAP), yet also handle more security domains. The National Security Agency (NSA) and General Dynamics C4 Systems are researching methods to utilize advanced COTS technology in order to achieve the required isolation, and provide a new foundation for cross-domain mechanisms to provide assured information sharing without "air gaps."

G.H.O.S.T. reduces the need for multiple computers to access different security levels which results in overall cost reductions in both hardware and network support while increasing system-wide mobility.

Our Multi-Level Security (MLS) Trusted Network Environment (TNE®) provides "programmable" multi-domain capabilities, reduced SWAP, administrative staffing, and maintenance. TNE is well-suited for use by responders and warfighters, by the mission systems in their vehicles, and in numerous other platforms.

Available Today

Expertise in:

- System and Platform Security Engineering
- Multi-Level and Cross-Domain
- Secure Communications
- Secure Networking

Products:

- IA-enabled Software Defined Radio suites
- General Dynamics High Assurance Open Scalable Technology Trusted Network Environment (G.H.O.S.T.^{TNE®})
- Mode 4/5 Identification Friend or Foe (IFF)
- Sectera® Edge™ Smartphone (SME PED)
- TACLANE®-Micro (KG-175D) Network Encryptor
- TVE Desktop, incorporating High Assurance Platform (HAP) technology

What's Next

Products:

- General Dynamics High Assurance Open Scalable Technology Trusted Embedded Environment (G.H.O.S.T.^{TEE})
- ProtecD@R™ Data-at-Rest Encryptors



GENERAL DYNAMICS
C4 Systems

Cross-Domain: General Dynamics is at the forefront of developing modular cross-domain controlled interfaces that can be certified and implemented into tactical systems. For example, we have built mission-planning secure distribution subsystems that fuse our encryption technology with cross-domain technology. The subsystem can ascertain the classified elements of a mission data package, apply appropriate encryption, and produce an unclassified media for unclassified personnel to transport. We also have tactical cross-domain solutions to enable sharing of data with unclassified warfighters.

Secure Communications: General Dynamics C4 Systems was the first to field secure Mode 4/5 Identify Friend or Foe (IFF) transponders and interrogators. We are an industry leader in the development and application of Software Defined Radio (SDR) technology and in the IA and cryptographic protections built within this technology.

General Dynamics C4 Systems provides solutions for security in the tactical environments with the TACLANE® family of Type 1 encryptors, including the TACLANE-Micro (KG-175D). These products are certified for Top Secret and below, High Assurance IP Encryptor Interoperability Specification (HAiPE® IS) and Crypto Modernization compliance and include features that support tactical implementation such as remote zeroize and field tamper recovery, size, weight, power, cost and MIL-SPEC testing requirements.

At less than 5 lbs., the TACLANE-Micro is the smallest, lightest In-Line Network Encryptor (INE) for Type 1 security. The TACLANE-Micro is ruggedized for tactical and strategic environments and SWaP-sensitive platforms.

TVE is a software application that allows users to view and access multiple operating systems, security levels and domains from a single computer. TVE, a General Dynamics High Assurance Open Scalable Technology, eliminates the need for multiple computers and workstations, resulting in significant IT cost savings as well as decreased costs associated with space, weight and power. The solution improves operational efficiencies as information is more readily available for timely mission-critical decisions.

We have expanded our mobile wireless solutions to include the tactical Sectera® Edge™ Smartphone (SME PED), a wireless handheld device for secure voice, access to SIPRNET/NIPRNET, file viewing and instant messaging. The SME PED is a ruggedized device tested to handle the rigors of tactical communications.

While network encryptors secure data-in-transit, the requirements for protecting Data-at-Rest (DAR) are becoming more prevalent. General Dynamics is developing the ProtecD@R™ family of encryptors to secure data-at-rest for for both networked and direct-attached storage, including: the ProtecD@R Network (KG-202) Encryptor, providing security for networked data storage; the ProtecD@R Server Encryptor, the complete

enterprise solution for DAR security; the ProtecD@R Embedded Encryptor, ruggedized for tactical environments; and the ProtecD@R PC Encryptor that provides DAR security for both desktop and laptop computers.

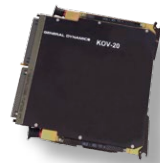
Custom Encryption and IA: Our encryption and IA technologies are found in tactical platforms including advanced aircraft, Command and Control (C2) systems, Intelligence, Surveillance and Reconnaissance (ISR) systems, and unmanned ISR and communication platforms. These technologies can be customized to meet embedded tactical mission needs for both manned and unmanned platforms. We are developing new Type 1 encryption for disposable and unmanned applications.

Our Type 1 data-at-rest media encryptors will provide the protection needed for handling and storing classified data in tactical systems.

Family of Advanced Core Cryptographic Technologies (FAC²T): General Dynamics' network and system products are powered by our Family of Advanced Core Cryptographic Technologies, a broad offering of embeddable cryptographic solutions that address a wide variety of product and program needs, including commercial-off-the-shelf (COTS)-based solutions for low SWaP applications, Multiple Independent Levels of Security (MILS) solutions for embedded security applications, and customized solutions for high performance applications. FAC²T-powered products are currently embedded in high assurance military and government applications in air, sea, land and space platforms.



TVE desktop – incorporating HAP technology



KOV-20 Avionics Module



TACLANE®-Micro (KG-175D)



KIV-78 Avionics Module



Sectera® Edge™ Smartphone (SME PED)

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www.gdc4s.com/InformationAssurance

D-IA-TACTICAL-7-1109

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