

Transition

An example of Air Force supported SBIR/STTR technology that has been transitioned into an Air Force or other DoD system or subsystem or used by Air Force test ranges and facilities or maintenance depots.

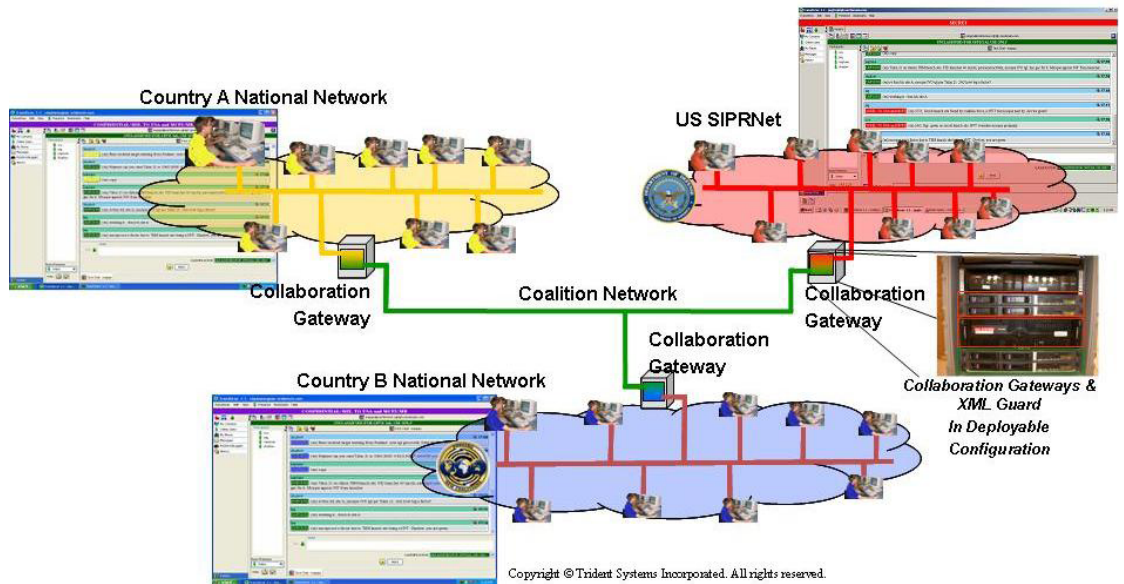
SBIR Topic Number:
AF03-079

SBIR Title:
Multiple Security Level Collaboration

Contract Number:
FA8750-04-C-0075

SBIR Company Name:
Trident Systems Incorporated,
Fairfax, VA

Technical Project Office:
AFRL Information Directorate, Rome, NY



Operational View of Collaboration Gateway

Collaboration Gateway Enables Secure Cross-Domain Information Sharing

- The Air Force and other defense entities need the capability to share information within a single classification domain among coalition partners with different classification domain protocols
- Trident Systems Incorporated designed a Collaboration Gateway (CG) system for use by U.S. military and intelligence communities, allowing for real-time collaboration and information sharing across security boundaries
- CG has multiple capabilities, including Secure Cross-Domain Real-time Chat and Whiteboard, support for language translation enhancing coalition operations, full National Security Agency Certification Test & Evaluation for Cross-Domain Chat, and full logging of all chat sessions
- CG is being used to provide secure real-time chat capability between CENTRIX and NATO networks as well as for use by the Defense Information Systems Agency, the UK Ministry of Defence, the U.S. intelligence community, and in support of other planned deployments

Commercialization Pilot Program Series

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Air Force Requirement

Personnel in the Air Force, other armed services, and the Intelligence Community require the ability to securely and rapidly collaborate. Text-based chat has become a standard means of communication within both Department of Defense (DoD) and the Intelligence Community, but there has never been a secure way of enabling collaboration between differently-classified computer networks. As a result, operations planning and execution, particularly in coalition situations, suffered from delays and inefficiencies as personnel struggled to share information in a timely way without violating information assurance rules.

SBIR Technology

Under an Air Force SBIR project, Trident Systems Incorporated developed the Collaboration Gateway (CG) system. Utilizing industry standard protocols and state-of-the-art security technologies, CG enables secure, cross-domain collaboration between multiple security enclaves.

CG leverages certified guarding technologies, such as Information Support Server Environment (ISSE) Guard, Radiant Mercury, and Data Sync Guard, to provide a defense-in-depth architecture that is both flexible and secure. The innovative aspect of CG is the unique way in which it leverages both existing guards, as well as the standards-based chat tools in use throughout DoD today, thus minimizing the investment needed in replacing existing infrastructure. CG capabilities include:

- Secure Cross-Domain Real-time Chat and Whiteboard
- Support for language translation enhancing coalition operations
- Full National Security Agency (NSA) Certification Test & Evaluation (CT&E) for Cross-Domain Chat
- Full logging of all chat sessions, providing enhanced information assurance through post-chat auditing

Transition Impact

The Air Force is using this technology in theater to provide secure real-time chat capability between Combined Enterprise Regional Information Exchange (CENTRIX) and North Atlantic Treaty Organization (NATO) networks. Moreover, CG has been successfully fielded to the following agencies:

1. Defense Information Systems Agency (DISA) Multi-National Information Sharing sites, in support of synchronous collaboration among several coalition partner countries.
2. UK Ministry of Defence for collaboration between various

- UK ministries and their U.S. and other coalition counterparts.
3. A planned deployment to U.S. Pacific Command, as part of a larger environment designed to support collaboration between U.S. and allied countries.
4. A planned deployment to the U.S. Joint Inter-Agency Task Force – South (JIATFS). This deployment supports counternarcotics missions by enabling collaboration between U.S. and coalition countries as well as among DoD and civilian Federal agencies chartered to support the counternarcotics mission.
5. Several organizations within the U.S. Intelligence Community. In these deployments, CG will enable collaboration by U.S. and coalition partners between the STONE GHOST and Joint Worldwide Intelligence Communications System (JWICS) networks.

CG can make an impact anywhere there exists a need to connect people who use computers on differently-classified networks. It enables warfighters to immediately collaborate with coalition partners to quickly respond to events, as well as to accelerate the coordination necessary for successful operations.

The use of Cross-Domain Solutions has risen dramatically, driven in large part by the need for U.S. military and intelligence agencies to share information with international coalition partners. Though typically limited to “machine-to-machine” connections such as the secure transfer of formatted messages (for instance, reports of friendly and hostile force positions), CG enables coalition partners to elevate cross-domain communications to a new level.

Company Impact

Collaboration Gateway is Trident’s best selling cross-domain solution. Sales of Collaboration Gateway have led to increased revenue and expansion of Trident’s Raleigh, NC office, where CG is developed. “Collaboration Gateway represents what we call ‘Cross-Domain 2.0,’” notes Nick Karangelen, Trident’s founder and President. “Instead of connecting automated systems through a cross-domain guard, Collaboration Gateway connects people.”



SBIR/STTR

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