

## Combat Information Transport System (CITS)

### Executive Summary

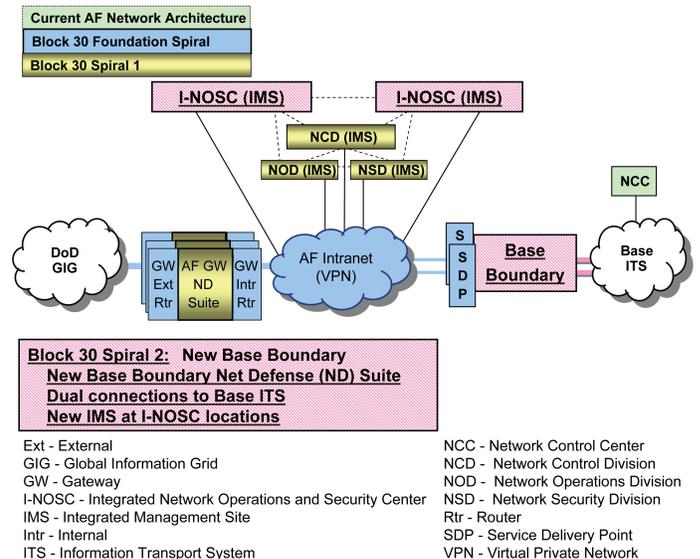
- The Combat Information Transport System (CITS) program is a family of projects that incorporate a variety of commercial off-the-shelf (COTS) items that must be integrated to perform the required military missions. Significant organizational change is necessary to implement the projects to perform centralized network management and defense.
- The 346th Test Squadron (346 TS) conducted an Operational Utility Evaluation (OUE) of the Second Generation Wireless Local Area Network (2GWLAN) at Randolph AFB, Texas, in January 2008.
- The 346th Test Squadron and DOT&E assessed the 2GWLAN COTS-based system as operationally effective and suitable for its intended mission. The Aruba-based wireless components provide a system that is operationally effective and suitable.
- The Mobility Management System (MMS) used to centrally command, control, and manage the various wireless networks deployed on a base, and its associated operator-defined documentation, are neither operationally effective nor suitable.
- The Capabilities Development Document (CDD), Test and Evaluation Master Plan (TEMP), and other system-level acquisition and test documents are still in development.

### System

- CITS provides an end-to-end capability to create, store, transport, manipulate, archive, protect, and defend information within the Air Force components of the Global Information Grid (GIG).
- The CITS program is a family of projects that provide COTS-based communications infrastructure enhancements, wireless communications and data capabilities, and robust network management and network defense for the Air Force.
- The current program consists of three projects:
  1. Second Generation Wireless Local Area Network (2GWLAN). The 2GWLAN provides COTS-based wireless capabilities to users at over 100 Air Force sites worldwide. The 2GWLAN provides encrypted wireless access via computers and other handheld devices to support flight-line maintenance, supply, and medical operations. Limited-range secure wireless access is available via the Secret Internet Protocol Network (SIPRNet). The MMS supports centralized network management of access points and other infrastructure components associated with the 2GWLAN.

### Activity

- The 346th Test Squadron conducted an OUE of the 2GWLAN at Randolph AFB, Texas, in January 2008.



2. Vulnerability Life-cycle Management System (VLMS). VLMS implements DoD-mandated network security tools using a centralized enterprise-level management structure. VLMS supports centralized remediation and patching of software security vulnerabilities.
3. CITS Block 30 Spiral 1. This is the largest network redesign in Air Force history and provides a centrally controlled interface between Air Force network assets and the rest of the GIG. CITS Block 30 Spiral 1 consists of 16 gateways worldwide, through which all traffic enters and leaves the Air Force network, centralized network management, monitoring, and defense in depth of all network assets.

### Mission

Commanders, operators, and planners will utilize CITS to support joint warfighting operations by leveraging an integrated and interoperable set of capabilities to effectively manage the Air Force enterprise network and maintain asset visibility; to move digital information seamlessly across geographical or logical boundaries; and to support multi-level operations.

### Prime Contractor

- Government Integrator (Program Management Office)

# AIR FORCE PROGRAMS

Test Squadron determined the level of testing for CITS projects using the risk-based approach outlined in the DOT&E “Guidelines for Operational Test and Evaluation of Software-intensive System Increments.”

- Recent Program Management Directive from the Office of the Air Force Chief Information Officer establishes the Air Force Operational Test and Evaluation Center (AFOTEC) as the operational test agency for CITS.
- AFOTEC is working with the user and acquisition communities to gather data on the 16 CITS projects identified to date and is assessing their scope, functionality, and test relevance.
- Quarterly meetings of the CITS Integrated Test Team (ITT) have been well-attended by all stakeholders, including user representatives.

## Assessment

- The OUE was adequate to assess the operational effectiveness and suitability of the 2GWLAN.
- The 346th Test Squadron and DOT&E consider the 2GWLAN COTS-based system operationally effective and suitable for its intended mission.
- The 346th Test Squadron and DOT&E determined the 2GWLAN MMS, intended to allow centralized wireless system management and network defense, was neither operationally effective nor suitable for continued use.
  - Users were not able to effectively use the COTS software to manage the large number of system alerts, even with only one base reporting to the MMS.
  - MMS users could not perform their tasks due to inadequate operational procedures and technical orders.

- The CITS Program Office has done work to correct these shortcomings. Results from regression testing are not yet available.
- Significant changes in Air Force Network Operations organizational structure and personnel roles are required to implement both VLMS and CITS Block 30 Spiral 1.
  - Operational users must be involved in all design reviews so that adequate operational procedures, technical orders, and organizational roles and responsibilities can be developed prior to deployment for testing and operational use.
  - Significant integration issues remain for both VLMS and Block 30 COTS products, even though there is only minimal custom software being developed for the system.
- The CDD, TEMP, and other system-level acquisition and test documents are still in development. The lack of documentation may impact AFOTEC’s ability to plan and execute adequate testing to meet program schedules.

## Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY08 Recommendations.
  1. The CITS Program Management Office should correct deficiencies identified in the MMS.
  2. The Air Force must complete the CDD and the Program Office must complete the TEMP prior to operational testing of Block 30 Spiral 1.
  3. The Air Force Network Operations Command and Air Force Warfighting Integration Center should ensure users are involved in the development of procedures and technical documentation for CITS operational implementation.