

## Information Sharing Technology

- **Cross-domain desktops (Access Solutions)**
  - DoD IIS Trusted Workstation
  - TCS SecureOffice Trusted Thin Client
  - NSA High Assurance Platform – GD TVE
  - HP NetTop
- **Cross-domain, federated search and retrieval**
  - MDDS: Vivisimo w/ TCS SecureOffice WebShield
- **Cross-domain chat**
  - Naval Research Laboratory Multi-Level Chat
  - Cross Domain Collaborative Information Environment (CDCIE)
- **Cross-domain services**
  - Cross Domain Web Services Gateway (CDWSG)
- **Cross-domain transfer (Transfer Solution)**
  - Data Sync Guard (DSG)
  - ISSE 3.6.X
  - Assured File Transfer (AFT)
  - OwlCTI One-Way Transfer
  - Radiant Mercury v5.0
  - Raytheon High Speed Guard (HSG)
  - TCS SimShield
  - TCS Trusted Gateway Server (TGS)
- **Protected email**
  - Tumbleweed Mailgate

## Additional Technology Expertise

- Service Oriented Architecture
- Identity Management
- Server/Desktop Virtualization
- Thin client workstations
- Remote administration of CDS
- Geospatial and COP visualization
- Storage Area Networks
- Networking

# XBIS

MITRE Cross Boundary  
Information Sharing Laboratory

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## MITRE XBIS Laboratory

The Cross Boundary Information Sharing (XBIS) Laboratory is a MITRE resource focused on information sharing challenges of our sponsors, presenting a realistic vision of information sharing – today and for the future.

The XBIS Laboratory provides subject matter expertise in information sharing technologies, with specialized expertise in cross domain solutions. We apply rigorous systems engineering and requirements analysis to complex information sharing problems, proposing implementable and creditable solutions.

The XBIS Laboratory is continuously enhancing its capabilities, incorporating additional cross domain solutions and information sharing technologies to support our sponsors growing need for collaboration and information sharing. Sponsors include organizations from across MITRE's four FFRDCs including the Department of Defense, the Department of Homeland Security and the Federal Aviation Administration. The Lab is also providing additional support in the area of Identity, Credentialing, and Access Management, and other technologies that support inter-agency communication and collaboration across organizational boundaries.

## XBIS Laboratory Capabilities

- **Investigate** – explore innovative implementations using existing technologies
- **Analyze** – examine sponsor and stakeholder systems for information sharing impediments
- **Design** – engineer and prototype implementable solutions
- **Educate and Inform** – develop advanced scenarios to demonstrate capabilities not widely understood
- **Support Research** – support research to advance capabilities for information sharing
- **Train** – provide hands on training in technologies and integration
- **Test** – conduct interoperability testing as part of integration. Support Alpha/Beta testing of products and solutions

## Scenario Development

The XBIS Laboratory uses mission-focused operational scenarios to demonstrate the results of the requirements analysis, systems engineering, and integration associated with a project. The scenarios model the complexity of sharing information across organizational, sensitivity level, and political boundaries. The scenario-based approach stimulates and encourages discussion to illustrate the range of sponsor challenges. It facilitates the extraction and validation of requirements and provides a way for MITRE and its sponsors to explore innovative approaches in the context of realistic examples.

The XBIS Laboratory has developed numerous scenarios representing the unique challenges of information sharing. The examples shown here highlight the diversity of our sponsor challenges as well as unique approaches to meeting sponsor needs.

*The Coalition Warfare scenario explores the challenges of multinational intelligence gathering and sharing at the Warfighter's operational tempo, employing readily available cross boundary solutions.*



NATO photo by SGT Peter Szigeti

*The Maritime Interdiction scenario showcases the value of recent developments in cross domain web services solutions and standards. It demonstrates how intelligence and homeland security agencies can discover and share relevant information using the UCore metadata standard.*



## XBIS Laboratory Infrastructure

The XBIS Laboratory uses both server and desktop virtualization technologies facilitating rapid reconfiguration to represent a wide variety of sponsor environments. The XBIS Laboratory operates at the unclassified level, employing the virtualized network infrastructure to simulate the segmentation between the various LANs and WANs used by our sponsors. With over 50 VLANs and 100 Virtual Machines, the XBIS Laboratory network provides a robust environment for evaluating various cross boundary information sharing challenges.

The XBIS Laboratory has an extensive cross domain solution inventory, which is installed in its approved, creditable configuration. This provides extensive hands-on experience with the actual devices and allows our sponsors to view and interact with the technology in the context of their implementation. Our multi-media demonstration room allows for live demonstration of these capabilities to leaders and decision makers.

## MITRE CDS Portfolio

The XBIS Laboratory is a component of MITRE's Cross Domain Solutions (CDS) portfolio. The CDS Capability Portfolio work program includes CDS systems engineering, research to address capability gaps, tactical CDS development, enterprise CDS architectures, solution trade-off analysis, and CDS training and education. The portfolio integrates MITRE's CDS work program for the US Government.

