

VTE

Overview

ManTech Cyber Training: PEO C4I PMW Computer Network Defense (CND) Virtual Training Environment (VTE)

ManTech provides Information Assurance / Computer Network Defense Training (IA/CND) in classrooms located in San Diego and Norfolk and, using Mobile Training Teams (MTTs), aboard ship and at Network Operating Centers (NOCs) worldwide. ManTech is training the entire U.S. Navy Fleet and ONE-NET CND technicians in CND tools and the latest versions of the Host Based Security System (HBSS).

Mobile Training Suite

ManTech's Mobile Training Suite (MTS) is Government Furnished Equipment (GFE) from PMW 130 and has been in use since 2008 for training U.S. Navy CND technicians in IA/CND processes, techniques, and procedures. ManTech instructors have used this system in providing training to every U.S. Navy ship, the Military Sealift Command (MSC),

and the CONUS and OCONUS NOCs.

- Hosted applications – not a simulator
- Runs unmodified GOTS/COTS software
- Systems are fully virtualized, including all routers and switches
- Fully virtualized, multiple network environment provides each student with their own independent suite of networks
- Easily transportable to provide training where and when needed

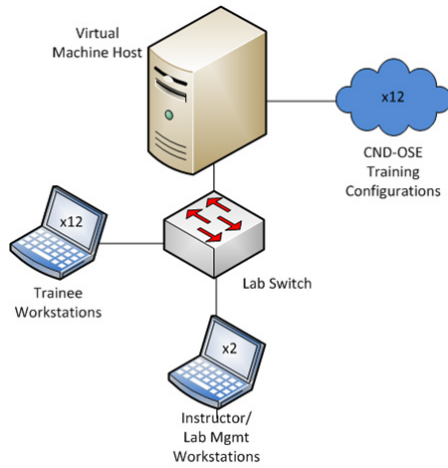
The MTS is a robust network virtualization that provides each student their own fully independent suite of virtual machines (VMs) running the Navy's operational applications. Each MTS system consists of a single server unit that hosts all of the VMs and related appliances (switches, routers, etc.) in a robust VMware™ implementation. It is specifically designed to provide each trainee with their own safe, isolated network in a stand-alone environment. The virtual machines run identically configured operating systems and applications, and are not aware of their virtualized status.

What differentiates the ManTech solution from other "cloud" implementations is our engineering team's ability to "fine tune" the system to optimize performance and data throughput. Our intimate knowledge of nested operating systems and virtual environments enables us to "tweak" the hardware and software for a significant improvement of overall responsiveness so that the user does not experience



lag time between keystrokes and mouse input as with most other virtual environments.

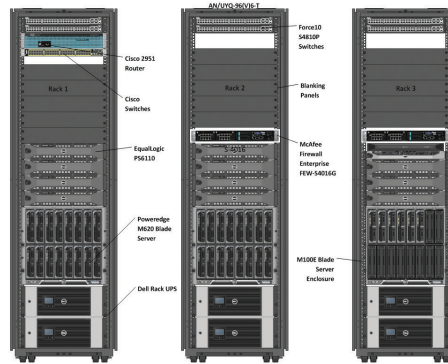
The MTS facilitates comprehensive hands-on administration, operations, troubleshooting, and analysis training. This solution eliminates the risks associated with performing practical exercises on production equipment. Training exercises are controlled via a Lab Manager that supports the different environments and scenarios needed for effective hands-on practice and performance testing.



- User (Instructor & Student) management & access control
- Content Management including:
 - Student information forms, testing, course critiques
 - Instructor observations, web portal to the virtual labs
 - Course curriculum, trainee guides, presentation slides, & documentation
- Reporting capabilities via easy export to spreadsheet or ODBC for MS Office programs
- Easily searchable database archives

Scalability

Additional courses or additional student loads can be accommodated by simply adding storage and/or processing capacity. The fully operational virtual environment can host any supported operational software for training in additional subjects.

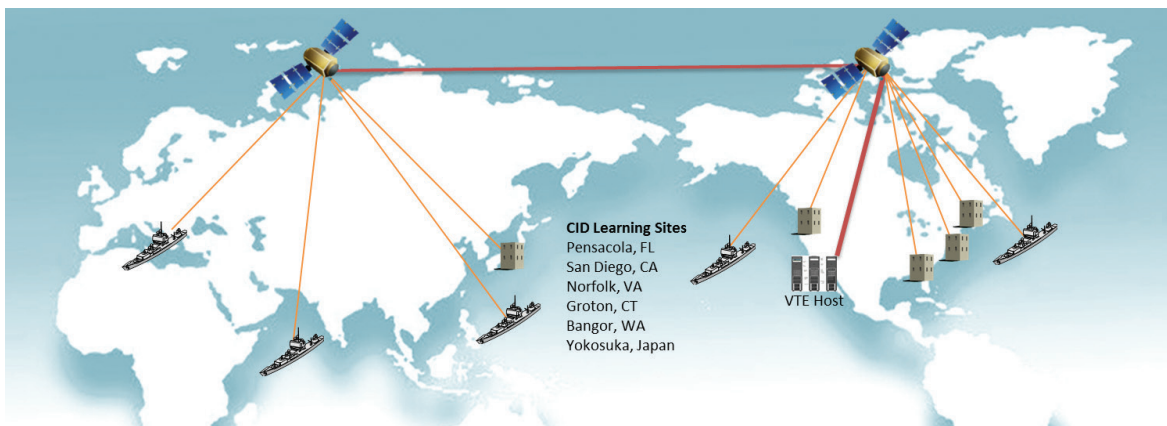


Learning Management Environment

ManTech's Learning Management Environment (LME) is a tailored Learning Management System (LMS) providing a seamless, learning environment integrating Instructor Led Training (ILT) resources, technical reference documentation, student learning material and guides for hands-on practice, and the interface for launching and managing the MTS VMs. Principal functions include:

Working hand-in-hand with PEO C4I PMW 130, ManTech is implementing an Enterprise Virtual Training Environment (EVTE) that will provide 7/24 secure access via the DoD TRANET for Navy Network Security Vulnerability Technician (NSVT) training at the Center for Information Dominance (CID) Learning Sites in San Diego, CA; Norfolk, VA; Kings

Bay, GA; Groton, CT; Bangor, WA; and Yokosuka, Japan. This environment is expected to ultimately be made available to Navy ships and bases worldwide for IT initial, refresher, and sustainment training.



LEARN MORE

Dan Dunway, Executive Director | (757) 282-7438 | dan.dunway@mantech.com