

Defense Travel System (DTS)

The Defense Travel System (DTS) is a seamless, paperless, automated information system that is to reduce costs, support travel requirements, and provide superior customer service. DTS integrates commercial travel reservation systems and DoD accounting and disbursing systems via a virtual private government network to provide the traveler with an end-to-end travel process. The Program Director (PD) is developing DTS as an evolutionary acquisition using a spiral development process that will field the system in increments of increasing functionality. There are two phases, or blocks, of development. The initial focus (Block 1) is on Temporary Duty Travel. After fielding the Block 1 releases (named after U.S. Presidents), the focus will shift to developing the Permanent Change of Station travel releases (Block 2).

The travel process begins with the users accessing the DTS via a web portal to create and digitally sign travel requests based on real-time transportation, lodging, and rental car availability using interfaces to various commercial reservation systems. The user-generated travel authorization contains an estimate of the trip. DTS enforces compliance with DoD travel policies based on simplified entitlements using audit alerts. Once completed, the authorizations are routed to authorizing officials for approval via designated routing lists. When travel is concluded, the traveler prepares an on-line voucher that is validated through appropriate financial systems that generates the reimbursement.

The program manager installed early DTS prototype systems at various pilot sites a few years ago. In May 2002, the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) put DTS on OSD acquisition oversight and the Army Test and Evaluation Command (ATEC) was the lead Operational Test Agency. At that time, the Adams release, which had a client-server architecture, was already in use or soon to be installed at approximately 20 pilot sites. During 2002 and 2003, the PD developed a new release, called Jefferson, which is web-based. Based on feedback from the Adams users, the PD decided to make further enhancements to the Jefferson software before releasing it. The PD declared the improved release, called Enhanced Jefferson, ready for IOT&E in June 2003. Milestone C and a declaration of initial operational capability were reached in 1QFY04.

TEST & EVALUATION ACTIVITY

DOT&E approved the Test and Evaluation Master Plan and a detailed test plan in June 2003.

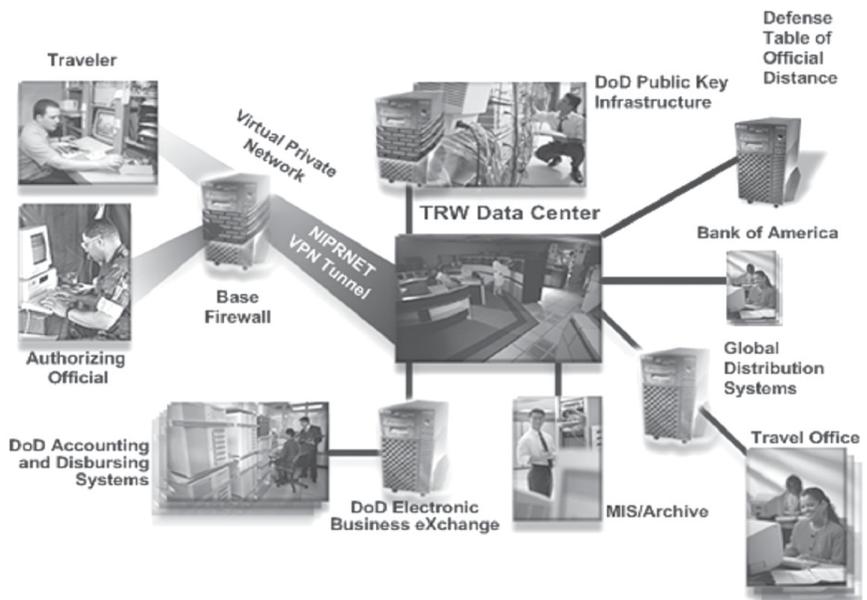
The PD completed developmental test and evaluation on Enhanced Jefferson in June 2003.

ATEC completed the first phases of initial operational testing on Enhanced Jefferson in July 2003.

ATEC conducted an in-field operational assessment on Enhanced Jefferson in July and August 2003.

TEST & EVALUATION ASSESSMENT

OT&E of a web-based system like DTS presents major challenges. The PD develops initial capabilities and subsequent enhancements in a contractor's development environment. However, once a new software release is made available to selected users for alpha testing, it must replace the previously fielded release completely. This is because



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DOD PROGRAMS

all users worldwide log on to a single web site in order to use the system. The web server exchanges information with multiple Defense Accounting and Disbursing Systems. Thus, while functionality can be tested in the development environment, the system must be fielded in order to be tested in the users' actual web-based environment. It cannot be fielded to a partial set of web-based users while other web-based users continue to use an older release.

To meet this challenge, ATEC developed a plan to conduct operational testing of the Enhanced Jefferson release in several phases. First, the operational testers visited several of the Adams release pilot sites to develop a baseline and learn more about DTS procedures. Next, they monitored the establishment of new pilot sites to evaluate installation and training. Once the PD completed developmental testing of the Enhanced Jefferson software, the operational testers brought in users from the field and conducted the initial phase of operational testing in a development environment using scripted scenarios. This allowed the operational testers to simulate all the required capabilities of the system without forcing the users to actually travel solely for the purpose of conducting the tests. Meanwhile, the PD pulled the Adams release from the web site, replacing it with Enhanced Jefferson. After the new release had been in use for one month, ATEC followed up with in-field surveys and interviews of users at selected locations to determine whether the system was performing the same in the field as it had in the development environment.

The Enhanced Jefferson release of DTS is operationally effective, operationally suitable, and survivable. However, some features (such as group travel) still require workarounds; the system needs to be made more intuitive to the user, and training needs improvement. DOT&E also notes that since DTS changes several business processes, it is more successful when vigorously implemented and supported by the using commands. Information received after the IOT&E indicated a possible deficiency in system security, but the PD appears to have corrected this problem almost as soon as it was found. The security fix has been validated by ATEC and DOT&E supports full fielding of Enhanced Jefferson while fixes and improvements are made to Madison, the next release.