

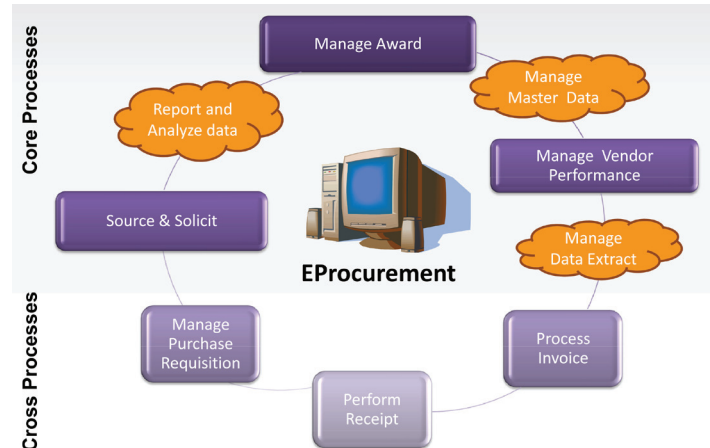
## EProcurement

### Executive Summary

- EProcurement extends the functionality of the Defense Logistics Agency (DLA) Enterprise Business System in three releases. The final release, Release 1.2, is currently in limited deployment and is planned for IOT&E in 2012.
- The Joint Interoperability Test Command (JITC) conducted an Operational Assessment (OA) of Release 1.1 in June 2011. JITC conducted validation tests of fixes to deficiencies in Release 1.1 in August and October 2011.
- In October 2011, JITC assessed EProcurement as potentially not effective and potentially not suitable. From June to October 2011, JITC found 20 critical software defects in Release 1.1 that inhibited users from successfully processing purchase requisitions and orders, managing and processing contracts, and managing contract line items. All 20 critical software defects have subsequently been validated by JITC to be resolved. JITC also found that 22 moderate software defects remained open and demonstrated the large amounts of functionality workarounds required to use Release 1.1. User comments and ratings indicated that the system was difficult to use. JITC noted that the volume of workarounds underscored the negative user evaluation and indicated that many documents produced in Release 1.1 were not accurate, not complete, or not usable by themselves and required manual editing by users.
- A joint DLA and Defense Information Systems Agency (DISA) Red Team conducted a penetration test at the DISA-operated Ogden Defense Enterprise Computing Center (DECC) in August 2011 and discovered major Information Assurance deficiencies. Since that time, DLA and DISA have taken the necessary actions to mitigate the system from being compromised, which was partially validated by DLA and DISA by October 19, 2011. More comprehensive fixes are being developed and applied. Efficacy of these fixes will be evaluated in IOT&E.

### System

- EProcurement is designed to provide enterprise-level procurement capabilities for the DLA to replace legacy procurement systems (Pre-Award Contracting System, Electronic Contract Folder, Procurement Automated Contract Evaluation, and Base Operations Support System).
- Intended functions of EProcurement include purchase requisition management, sourcing and solicitation, award management, and vendor performance management.
- The program office has delivered EProcurement in three releases. Release 1.0 was deployed to approximately 50



users in November 2010; Release 1.1 was deployed to approximately 320 users in May 2011; and Release 1.2, which has all of the required functionality of EProcurement, will be delivered in multiple roll-outs across the DLA Supply Chains.

- The first roll-out of Release 1.2 was initiated in October 2011 for a new group of approximately 380 aviation procurement specialists and to the Release 1.1 users (for a total of approximately 700 users).
- The remaining aviation users will receive EProcurement by September 2012.
- The following roll-out is scheduled for November 2012 to Land and Maritime, followed by DLA Troop Support starting in June 2013.
- The production environment for EProcurement is hosted at the DECC in Ogden, Utah, which is operated and maintained by DISA. EProcurement is one of the programs in the overall DLA Enterprise Business System Infrastructure hosted by the Ogden DECC. The back-up site is located at the DECC in Mechanicsburg, Pennsylvania.

### Mission

The DLA users will use EProcurement to procure and provide the full spectrum of consumables, services, and depot-level repairables to the Army, Navy, Air Force, Marine Corps, other federal agencies, and combined and allied forces.

### Major Contractor

Accenture – Reston, Virginia

## Activity

- JITC conducted an OA of Release 1.1 from May 31 to June 16, 2011, in accordance with a DOT&E-approved OA plan. The OA was conducted at DLA facilities located in New Cumberland, Pennsylvania; Mechanicsburg, Pennsylvania; Battle Creek, Michigan; Fort Belvoir, Virginia; Albany, Georgia; and Kaiserslautern, Germany.
- JITC also conducted validation tests from August 4-19, 2011, and from October 4-7, 2011, to verify the fixes to the deficiencies identified during operational use and developmental testing. Furthermore, JITC observed the developmental testing for Release 1.1 from December 2010 to February 2011 and for Release 1.2 from April to October 2011.
- The DISA Field Security Operations (FSO) and the DLA Information Operations conducted a penetration test from August 15-26, 2011. The FSO team tested the supporting infrastructure on-site at the DECC in Ogden, Utah; and the DLA team tested the security posture of the EProcurement application from the internet and from DLA's internal network.

## Assessment

- During the Release 1.1 OA and the follow-on validation tests, JITC found 20 critical software defects. These defects inhibited users from successfully processing purchase requisitions and orders, managing and processing contracts, and managing contract line items.
- The user community found manual award processing and post-award processing for modifications to be largely inaccurate, incomplete, and unusable. Some user dissatisfaction may have derived from the conversion from manual processes to Enterprise Resource Planning-based processes, as the Release 1.1 user population had not been exposed to the Enterprise Business System prior to the Release 1.1 OA. However, 22 Moderate priority incident reports (software defects for which there are workarounds) also remained open and required large amounts of functionality workarounds to use Release 1.1.
- Only one-third of the Release 1.1 users rated the human-system interface and other system usability attributes as acceptable during the OA. User dissatisfaction may also have been due, in part, to slow screen refresh times for some operations. Most operations were timely; the median screen refresh time was 8.8 seconds (versus a threshold requirement of 15 seconds). However, 14 operations took more than 1 minute to complete, and the average screen refresh time was 190 seconds.
- Subsequent to the June OA, the program office took action to address the identified deficiencies. By mid October, the program office had fixed (and JITC had verified) all 20 critical software defects. The program office also implemented optimized software code in early September 2011, which improved the screen refresh times. During the validation test conducted in October 2011, the median screen refresh times met the objective of less than 8 seconds; four operations took more than 1 minute, and the average screen refresh time was

about 18 seconds. The program office is continuing to track operations with long refresh times.

- A joint DLA and DISA Red Team conducted penetration testing at the DISA-operated Ogden DECC and discovered significant Information Assurance deficiencies. These deficiencies, if not mitigated, would enable perpetrators to take total control of the system and all systems connected to it. A total of 16 Information Assurance findings related to the system were found. Of the 16 findings, seven were related to the EProcurement application, seven were related to the DISA DECC, and two were shared by DLA and DISA. The program reports that all seven application-specific findings have been remediated. For the remaining findings, DISA has developed a Plan of Action and Milestones (POA&M) to address each of the findings with a phased approach that began in late October 2011. The DLA, in conjunction with DISA, also developed a POA&M to address the shared Information Assurance deficiencies.
- All identified Information Assurance deficiencies are scheduled to be fixed or mitigated by the end of January 2012. JITC will perform a follow-on penetration/exploitation test event to verify that the system and supporting infrastructure are secure.
- During the developmental test of Release 1.1, numerous critical system defects were discovered and documented. These defects were reported as fixed just prior to deployment of Release 1.1 into the production environment; however, the OA still found many critical defects, which indicates that defect resolution and developmental testing may not be as robust as they should be.
- The operational effectiveness and operational suitability of EProcurement will be determined after the completion of the IOT&E of Release 1.2 in 2012.

## Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY11 Recommendations. The program office should:
  1. Improve developmental testing and the developmental test environment to enhance its operational realism so that critical system defects are discovered in developmental testing.
  2. Improve the feedback mechanisms between the deployed system and developmental testing so as to incorporate discovered system deficiencies into subsequent developmental testing.
  3. Develop and implement a plan to use automated testing to diminish the ongoing regression testing burden.
  4. Define and implement an incremental test and roll-out plan to further reduce program risk.
  5. Verify the efficiency of the DLA's POA&M for Information Assurance during the IOT&E in 2012.