

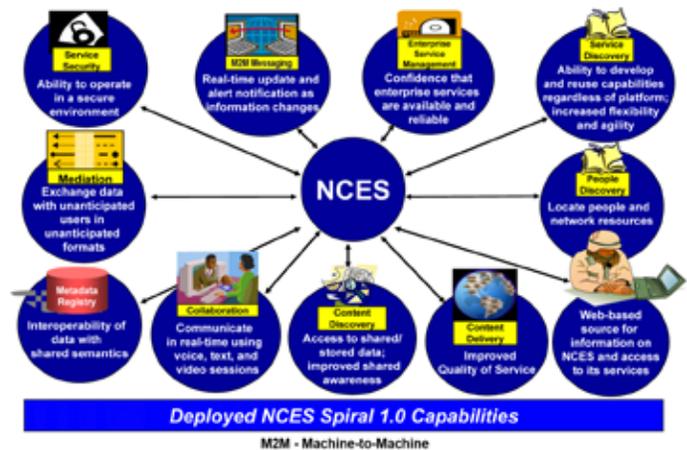
# Network Centric Enterprise Services (NCES)

## Executive Summary

- The Network Centric Enterprise Services (NCES) program completed Early User Tests on the International Business Machine's (IBM) Sametime collaboration service on both the Unclassified but Sensitive Internet Protocol Router Network (NIPRNet) and the Secret Internet Protocol Router Network (SIPRNet). Limited Authority to operate with up to a maximum of 100,000 registered users was granted by the Defense Information Systems Agency's Component Acquisition Executive (DISA CAE).
- Developmental testing was sufficient to provide a Limited Authority to Operate for the Defense Knowledge On-Line Portal and the Enterprise Service Management capability.
- A risk assessment was conducted to determine the level of testing for Increment 1, Spiral 2, which consists of Service Oriented Architecture and Content Discovery and Delivery capabilities. The risk assessment recommended that an operational assessment be conducted. The Joint Interoperability Test Command is developing the test plan for an operational assessment currently scheduled for December 2007.
- Developing a methodology to test and evaluate rapidly evolving, commercially managed enterprise services continues to prove more difficult than anticipated. Challenges include:
  - The slow adoption rate of NCES by existing programs of record
  - Continual evolution of core enterprise capabilities
  - Concerns about security that inhibit content providers from sharing information
  - Lack of established governance standards for exposing information on the Global Information Grid

## System

- NCES is a suite of capabilities that support automated information exchange across DoD on both classified and unclassified networks. These capabilities include collaboration, discovery, and subscriber tools.
- NCES is a suite of software products that are commercial off-the-shelf and government off-the-shelf products.
- The warfighting, intelligence, and business communities access NCES capabilities either directly or through a portal that controls access by the use of public key infrastructure profiles. NCES will extend selected services through the Internet to state, local, and authorized coalition users by the end of Increment 1.



- NCES collaboration tools provide all registered users the ability to hold meetings and exchange information by text, audio, and video.
- The discovery capabilities (content, people, services, metadata, publish/subscribe) allow producers of data to post information, alert others to the presence of new information, and evaluate the relevance of the data to their current roles and activities.
- NCES includes security and management capabilities that integrate with, and rely upon:
  - Network operations management capabilities supporting enterprise service/network management
  - Information Assurance/computer network defense
  - Content staging/information dissemination management
- Increment 1 services are available to all operational and tactical users who connect to a Defense Information System Network (DISN) point-of-presence. Future increments will expand and refine services to operational and tactical users in bandwidth-restricted, intermittent, and disconnected environments.
- NCES capabilities are intended to be commercially available products managed under a series of Service Level Agreements.

## Mission

Joint Force Commanders will use NCES to enable shared understanding, interface with other decision makers, orient forces, assess the situation, and synchronize operations.

## Activity

- The Joint Interoperability Test Command (JITC) documented the functional capabilities and performance of the NCES IBM Sametime 7.0 collaboration tool on the NIPRNet in February 2007 and IBM Sametime 7.5 tool on SIPRNet in June 2007. Observations were collected in separate DoD exercise and training events. IBM Sametime achieved incremental Limited Operational Availability status on NIPRNet in March 2007 and on SIPRNet in June 2007 for a maximum of 100,000 registered users and 1,000 concurrent users.
- The Defense Knowledge On-line Portal capability achieved Limited Operational Availability status in March 2007.
- The Enterprise Service Management capability completed developmental testing in August 2007. Testing assessed the ability of the Joint Task Force - Global Network Operations Center to adequately monitor the functioning and use of NCES Web services across the network. A Limited Operational Availability decision was made by the DISA CAE in September 2007.
- The JITC, with the supporting Service Operational Test Agencies, conducted a risk assessment and determined that Increment 1, Spiral 2, which consists of Service Oriented Architecture and Content Discovery and Delivery capabilities, will require an operational assessment. The JITC is developing the test plan for the December 2007 operational assessment in conjunction with the Service Operational Test Agencies.

## Assessment

- The development of a streamlined means of testing rapidly evolving, commercially managed, enterprise services continues to prove more difficult than anticipated. Challenges include:
  - The slow adoption rate of NCES by existing programs of record
  - Continual evolution of core enterprise capabilities
  - Network latencies for users without direct access to the DISN
  - The level of effort needed for programs to expose their capabilities using NCES
  - Security policies that inhibit content providers from sharing information

- The lack of established governance standards for exposing information on the Global Information Grid.
- The IBM Sametime collaboration capability is available to 100,000 registrants, but typically sustains an average of 50 concurrent users. Adoption has been slow due to issues with security, latency, and audio performance.
- The Defense Knowledge On-line Portal does not provide the same level of storage as the current NCES Defense On-line Portal. As a result, customers must find alternate storage options when the NCES Defense On-line Portal is removed from operations in December 2007. The differences in capability are causing Services and Agencies to reassess transition plans.

## Recommendations

- Status of Previous Recommendations. The NCES Program Office took constructive action on the FY06 DOT&E recommendations and identified U.S. Strategic Command as the NCES sponsor. The Services, Agencies, and Combatant Commands developed limited operational success criteria for NCES.
- FY07 Recommendations.
  1. DISA and the JITC should align the NCES evaluation strategy with the planned NCES implementations developed by programs of record and communities of interest. The strategy should be generic, repeatable, and assess the contribution NCES makes towards mission success.
  2. Update the NCES Test and Evaluation Master Plan to reflect the slow adoption of NCES and the consequent limited availability of effectiveness and suitability data at the enterprise level. Specifically, modify the decision supported by the IOT&E from “full-fielding” to continued expansion of Limited Operational Availability decisions.
  3. U.S. Strategic Command and U.S. Joint Forces Command, in conjunction with the Services, Agencies, and other Combatant Commands, should continue to refine the operational success criteria for NCES so that they clearly relate NCES services to mission or task accomplishment.