ENTERPRISE SYSTEMS ENGINEERING

MR. EDWARD C. THOMAS
DIRECTOR, CECOM SOFTWARE ENGINEERING CENTER

(732) 532-8207
edward.thomas@mail1.monmouth.army.mil
**Title and Subtitle**  
Enterprise Systems Engineering

**Author(s)**  
Thomas, Edward C.

**Performing Organization Name(s) and Address(es)**  
CECOM Software Engineering Center

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Report Type</th>
<th>Dates Covered (from... to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>06MAY2002</td>
<td>N/A</td>
<td>06MAY2002 - 07MAY2002</td>
</tr>
</tbody>
</table>

**Sponsoring/Monitoring Agency Name(s) and Address(es)**  
Department of the Army HQ U.S. Army  
Communications-Electronics Command and Fort Monmouth  
Fort Monmouth, NJ 07703-5000

**Distribution/Availability Statement**  
Approved for public release, distribution unlimited

**Supplementary Notes**  
See also ADM001406, non-print version on CD-ROM. Conference briefings from Advance Planning Briefing for Industry(APBI) held May 6-7, 2002., The original document contains color images.

**Abstract**

**Subject Terms**

**Report Classification**  
unclassified

<table>
<thead>
<tr>
<th>Classification of this page</th>
<th>Limitation of Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>unclassified</td>
<td>UU</td>
</tr>
</tbody>
</table>

**Number of Pages**  
15
CHALLENGES:

- INTEGRATING PLAN (for migration & convergence)
- UP-FRONT ENGINEERING (for enterprise integration)
- MIGRATION/TRANSITION OF TECHNOLOGY (optimally)
- UNIFIED REQUIREMENT
- FUNDING FOR HORIZONTAL INTEGRATION
- SYNCHRONIZATION
- COMPLIANCE (with standards)
ARMY ENTERPRISE SYSTEMS ENGINEERING
Ensures Integrated Enterprise

OPTIMIZED INDIVIDUAL SYSTEMS

MIA: ENTERPRISE SYSTEMS ENGINEER FOR OPTIMIZED INTEGRATED ENTERPRISE

CECOM Bottom Line: THE WARFIGHTER
EXAMPLE - LOGISTICS CHALLENGE

LEGACY WHOLESALE LOGISTICS SYSTEMS

LEGACY RETAIL LOGISTICS SYSTEMS

WLMP

ABCS

ENSURING ENTERPRISE SOLUTION TOMORROW

BRIDGING THE GAP TODAY

MANUFACTURER

ARMY INTEGRATED LOGISTICS CHAIN

WARFIGHTER

CECOM Bottom Line: THE WARFIGHTER
EXAMPLE – AKM CHALLENGE

Army’s Infostructure

LOGISTICS

FINANCE

INTELLIGENCE & ELECTRONIC WARFARE

COMMAND AND CONTROL

Communications

DESK TOP
ON POST
LONG HAUL
THEATER
TACTICAL

ADOPT  ADAPT  DEVELOP

CECOM Bottom Line: THE WARFIGHTER
SEAMLESS VERTICAL & HORIZONTAL C4ISR SYSTEMS INTEGRATION ACROSS THE SPECTRUM OF OPERATIONS TO MEET THE NEEDS OF THE OBJECTIVE FORCE

- FROM THE BATTLESPACE TO THE SUSTAINING BASE (Tactical, Strategic, Installation)
- TODAY AND INTO THE FUTURE (Legacy, Interim, Objective)
- SPANNING FUNCTIONAL DOMAINS (Fire Support, Intel, Combat Service Support, ....)
WHERE WE ARE HEADED

EXPAND ON-GOING ARMY ENTERPRISE SYSTEM ENGINEERING ACTIVITIES

- DEVELOP & OVERSEE OVERARCHING ARMY ENTERPRISE SYSTEM ENGINEERING MASTER PLAN
  - ARMY-WIDE ENTERPRISE ARCHITECTURE SUPPORT
  - RISK MITIGATION THROUGH ARMY-WIDE ENTERPRISE PILOTS
  - TECHNOLOGY INSERTION FACILITATION

- RESOLVE CROSS-CUTTING TECHNICAL ISSUES, IDENTIFY OPPORTUNITIES, MAKE RECOMMENDATIONS

- PROVIDE TECHNICAL CONSULT/EXPERTISE

- ASSIST & VALIDATE COMPLIANCE WITH ENTERPRISE SYSTEM ENGINEERING MASTER PLAN
FULLY ENGAGED ACROSS SPECTRA OF ACTIVITIES

♦ SYSTEMS ENGINEERING EXPERTISE
  (ASEO, JTA, Tools, …)
♦ BROAD RANGE OF C4ISR DOMAIN EXPERTISE
  (C2, Comm, IEW, FS, AV, MIS, …)
♦ TECHNOLOGY EXPERTISE

♦ FULL LIFE-CYCLE INVOLVEMENT
  (R&D, Post Development/Deployment)

SUPPORTING ARMY’S G3, G6, G8, Etc.

CECOM Bottom Line: THE WARFIGHTER
WHAT WE ARE DOING

- Define Enterprise Architecture with plan for migrating from “as is” to objective state
- Synchronize on-going activities to achieve common goal
- Identify shortcomings with current activities and initiate efforts to resolve

CECOM ESE Team

- SEC
- LRC
- ISEC
- RDEC

INTEGRATED OBJECTIVE FORCE

EA (PEO C3T)-TJTN
FCS C4ISR Architecture
Enterprise Applications Architecture
I3MP
Other Individual Efforts
WHAT ARE WE DOING

- Executive Agent (PEO C3T) – Theater Joint Tactical Network
  - Ensure Interoperability and synchronization among Service and Agency programs acquiring network components

- FCS C4ISR Architecture
  - Developed architectural tenets to support Network Centric Warfare

- ENTERPRISE APPLICATIONS ARCHITECTURE
  - Define framework for developing applications compliant with Enterprise Architecture

- Installation Information Infrastructure Modernization Program (I3MP)
  - Upgrade the information infrastructure to provide digital connectivity across installations, active support activities and deployed Forces.
HOW INDUSTRY CAN HELP

• THINK ENTERPRISE SOLUTIONS

• PROVIDE FEEDBACK. IT IS CRITICAL.

• MORE TO COME
Questions?