System of Systems
Engineering & Integration (SoSE&I) Directorate

Network Integration Evaluation 14.2
Industry Day

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DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited
Network Capability Set

Enterprise Component Capabilities

Network Capacity Domain Capabilities (Connect and Operate)
- Global (Computing and Storage)
- Long Haul
- Core (Computing and Storage)

Network Services Domain Capabilities (Share)
- Content Delivery
- Content Management
- Business Process Management
- Content Discovery
- Records Management
- Service Strategy

Network Operations and Security Domain Capabilities (Access and Defend)
- Workforce Training
- Standards and Business Rules
- Network Utility
- Network Management

Operational Capability Set – Brigade Combat Team

WIN-T Inc II
FBCB2-BFT II JCR
AN/PRC-117G (v4)
HMS ManPack Radio Rifleman’s Radio
NETT Warrior
Software Block 11-12
SRW – Soldier Radio Waveform

Installation Component Capabilities

Network Capacity Domain Capabilities
- Long Haul
- Short Haul
- Local Computing and Storage
- End User Computing at Post/Camp/Station

Enterprise Services Domain Capabilities
- Collaboration
- Content Discovery
- User Access Portal
- Service Strategy

Network Operations and Security Domain Capabilities
- Workforce Training
- Recruit and Retain
- Network Utility
- Network Management

Institutional CS (notional)

Operational CS (notional)
The COE is an approved set of Computing Technologies & Standards that enable secure and interoperable applications to be developed and executed rapidly across a variety of computing environments or CEs.

CE LEADS:

- Mobile/Handheld CE - PEO Soldier
- Mounted CE - PEO C3T
- Command Post CE - PEO IEW&S & C3T
- Data Center/Cloud/Generating Force CE - PEO EIS
- Sensor CE - PEO IEW&S
- Real Time /Safety Critical/Embedded CE - PEO Aviation
**Vehicular Integration for C4ISR/EW Interoperability (VICTORY) Objective** - Define a network-based data bus architecture for integrating the electronics systems, enabling C4ISR/EW systems to share information, computational resources, and user interfaces (displays, controls, etc.) as a means of reducing overall vehicle size, weight, and power (SWaP) requirements.

**Future Airborne Capability Environments (FACE) Objective** - Publish a set of standards that define a Department of Defense (DoD) wide COE for real time, safety critical embedded applications for avionics. Strategy is to create a hardware-agnostic software environment in war-fighting platforms that enables conformant applications to be deployed on multiple platforms without impact to the application.

**Ordnance Interface Standard (OIS) Objective** - Provide standardization and definition of ordnance interfaces, quality attributes, engineering artifacts, and architecture framework to enable control of Ordnance Systems by any PoR/system that has the required ordnance certifications. Provides efficiencies in development through reusable artifacts for existing systems.
TRADOC Gaps & Opportunities

- **Mkt Research for emerging Requirements for CS 17**
  - Further define performance and evaluation criteria for RFP development
  - Define Market / Market Research
  - Capture Soldier Feedback

TRADOC Gaps & Opportunities

- Define CS 17 Baseline / Field FY17
- Conduct PoR Operational Tests

TRADOC Gaps & Opportunities

- **RFP from 14.1 Requirements**
  - Conduct technical and operational evaluation of candidate solutions
  - Procure new capabilities

TRADOC Gaps & Opportunities

- Validate CS 17 Baseline / Field FY17
- Conduct PoR OT/FOT&E
Integrating Capability Into The Force

- Establishes CS Baseline for fielding
- Establishes requirement for RFP
- Supports two-step process for non-PoRs
- Potentially Drives Industry IR&D usage

Supports CS Synchronized Fielding

Aligning the Network Against ARFORGEN and Capability Set Management
NIE Lessons Learned and Corrective Actions based on Industry Feedback

More Timely Communication with Industry through all phases
1. Insert post-DP1 communication check point with Industry
2. Target dates for timely evaluation reports post-DP2 for NIE for rejected candidates
3. Timely issuance of final assessments within 60 days of event completion

More Clarity in communication with Industry during the NIE Candidate Evaluation Process
1. Candidate Selection Process more clearly outlined and defined in Sources Sought
2. Roles and Responsibilities for systems more clearly defined in Sources Sought
3. Notification letters will more clearly communicate next steps, deliverables, key dates, and request acknowledgement of accepted candidate responsibilities
4. Investigate a file-sharing portal that we can grant Industry access to
5. Investigate a web-based white paper submission process to eliminate email overloads and processing errors when receiving white papers
6. Improved technical feedback by including all reports from all events

Improved Communication with SUEs During the NIE
1. Implement Weekly System Review meeting to provide coordinated guidance and POC information on behalf of TRIAD and to provide vendors a forum for resolving issues and questions
2. Clarity in communicating requirements, responsibility, and guidance for participants during NIE

Improved coordination across the TRIAD and ASA(ALT) communities
1. Initiation of PEO Alignment early in the Agile Process (Pending signature)
2. Initiation of PEO Alignment with DP3 recommendations (Pending signature)
3. Utilizing the SOS GOSC to inform the PEO Communities to generate support
Summary

WHAT THE NIE MEANS FOR THE ARMY:

- It’s a new and evolving way of doing business—a fundamental change in how we deliver capabilities to our Soldiers
  - Increased awareness and dialogue across government and industry
  - Increased access for competitive solutions
  - Solicitations targeted against prioritized gaps and requirements
  - Opportunity to do system integration before fielding to the force
  - Exposes capabilities to the Soldier faster than traditional Acquisitions
  - Streamlined Acquisition Opportunities apposed to the Traditional Acquisition efforts
    - Demonstrated capability in a field environment
    - “Try Before you Buy” - Emerging Technologies
    - Reduced cycle times

- Provides integrated, end-to-end capabilities to the networked leader

- Exposes Capabilities to the Soldier faster than Traditional Acquisitions

- Validates the Network Capability Set

- Provides preliminary integration designs for Capability Set execution