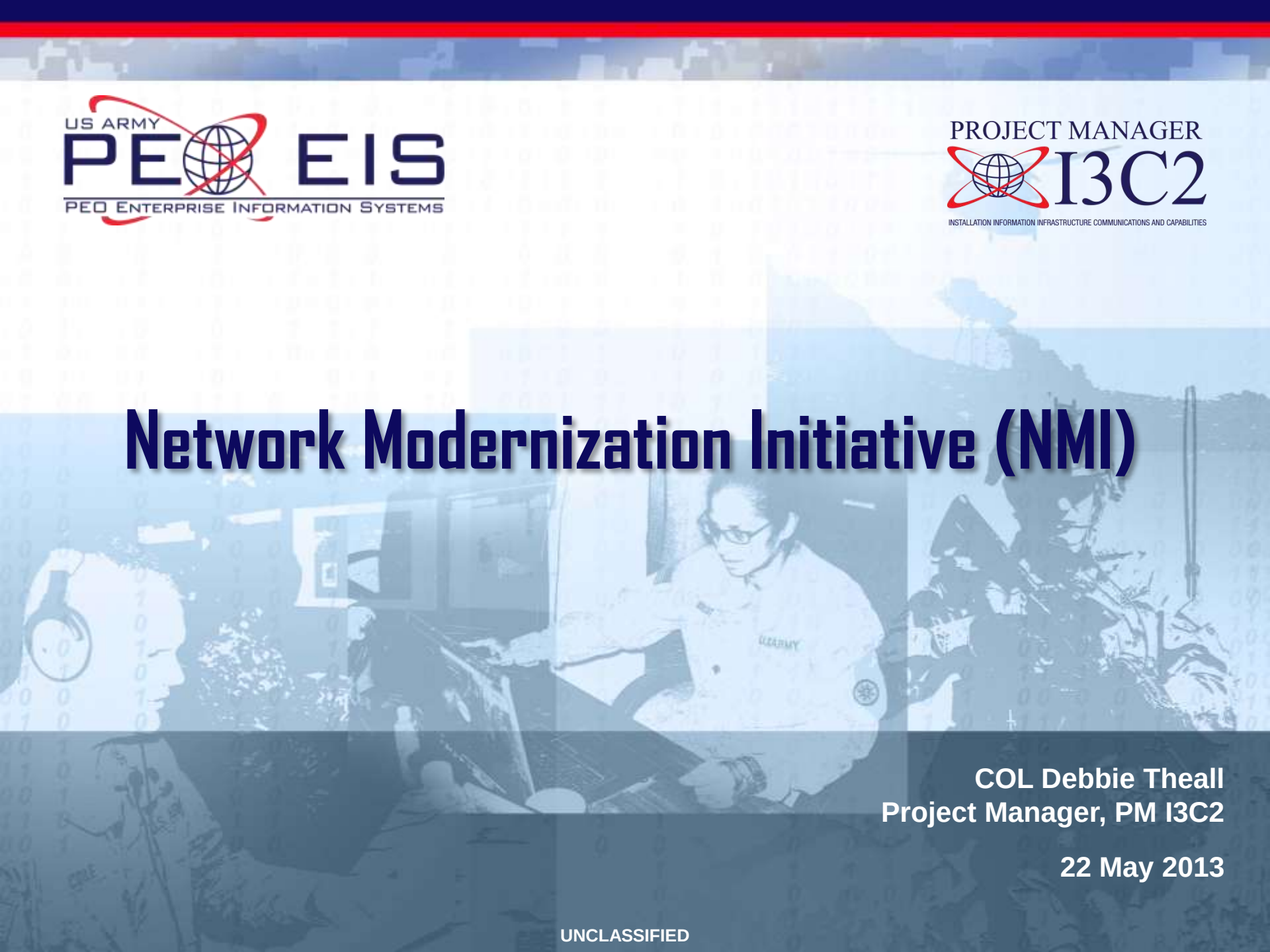
US ARMY PEO EIS
PEO ENTERPRISE INFORMATION SYSTEMS

PROJECT MANAGER I3C2
INSTALLATION INFORMATION INFRASTRUCTURE COMMUNICATIONS AND CAPABILITIES

Network Modernization Initiative (NMI)



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22 May 2013

NMI Overview

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Network 2020 Lines of Effort	1. Increase Network Capacity	2. Improve Security	3. Enterprise Services to the Edge
	4. Standardize the Network (NetOps)		

- **Single, Secure, Standards-Based Network**
  - Build single Architecture for Army and beyond in partnership with DISA
  - Using carrier class standards-based technologies
  - Built-in Security across the entire enterprise
- **Enable Global Collaboration**
  - Architecture built with Joint Service, Interagency, and Intergovernmental environment in mind
  - Bringing synergy to multiple communities of interest
- **Access at the Point of Need**
  - Facilitating Digital Training on any platform, anywhere, anytime
  - Enabling Installation as a Docking Station and Live Virtual Constructive Training
- **Capable, Reliable, and Trusted**
  - Providing a solid network infrastructure that is Always On, Always Connected
  - Maintaining Business/Mission Command applications and services on the Net

NMI Lines of Effort (LOE)

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Line of Effort (LOE)	Description
Defense Information Systems Network (DISN) Optical Upgrade	DISA upgrade of aging DISN Infrastructure
Core Routers	DISA installation of new DISN Core Routers at Army Base/Post/Camp/Station (B/P/C/S)
Regional Security Stacks (RSS)	DISA procurement/installation of 11 regionalized security stacks in CONUS
Physical Diversity to DISN	Connection of Army B/P/C/S to the DISN via two physically diverse routes
ICAN Area Distribution Node (AND)/End User Building (EUB) Switch Upgrade	Army upgrade Installation Campus Area Network (ICAN) Ethernet switches
Sensoring the Network	End-to-End network visibility w/ common views between DISA and Services
ICAN Outside plant (OSP) & Inside Plant (ISP) Upgrades	Complete OSP and ISP required upgrades/ expansions (FY15 and beyond)

Set conditions for future success
Improve foundational network elements
Pave the way for CIO/G-6 Installation Capability Sets

NMI Objectives

- **Bandwidth should no longer be an issue when Soldier needs new capability**
  - Upgrade Core Routers to 10Gb/s (capable of supporting 100 Gb/s)
  - 10 Gb/s across B/P/C/S: DISA router to EUB
- **Reduce number of Entry/Exit points to NIPRNET**
  - From 435 points in CONUS to less than 20 Globally
  - Enable capabilities such as IP-to-IP VTC
- **Move to Single Network resulting in the collapse 30+ Army networks**
- **Standardize configuration of Army ICANs**
- **Centralize data – approx. 80% of Army data is user files**
- **Improve Content Management**
  - Emplace behind security stacks
  - Reduce malware and malicious code

We are Architecting as an Enterprise to Create an Infrastructure that is Inherently More Secure, More Efficient and More Effective

Build Capacity

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- **Priorities:**
  1. CONUS – Focus on bases comprising 95% of CONUS Army in FY13-14
     - Priority by Region: 1) South West, 2) North East, 3) South East, 4) Mid-West, 5) West
  2. OCONUS – architectural planning underway
- **Objectives:**
  - Value: Maximize benefit from expenditure of limited resources
  - Speed: Action multiple, prioritized lines of effort simultaneously (Build Velocity)
  - Improve/maintain enterprise IT proficiency of Army workforce (military & civilian)
- **Implementation: Execute a broader, regional approach**
  - Strong partnership w/ DISA (Core Router installations)
  - Multi-site, Horizontal Fielding of ADN/EUB Switch upgrades (FY13-14)
    - Commodity volume procurements of equipment
    - Utilization of organic Army resources for switch implementation at simultaneous B/P/C/S
    - Convert B/P/C/S to Layer 2 only network configuration
- **FY15 and beyond – Focus on OSP/ISP and voice upgrades with Industry partners**

Importance of Network Modernization and the Current Fiscal Environment Demand a Change in Acquisition Strategy

Security Overview

Network 2020 Lines of Effort	1. Increase Network Capacity	2. Improve Security	3. Enterprise Services to the Edge
	4. Standardize the Network (NetOps)		

The intent of the Regional Security Architecture is to:

- **Create a Uniformed and Standards-based Security**
  - Uniform Service/Capability Delivery
  - Ability to Standardize Ingress/Egress connectivity as well as O&M processes
- **Improve Performance of Security**
  - Provide full security suite capability to every B/P/C/S
  - Reduced lateral movement beneath the Regional Security Stacks
  - Enclave boundaries clearly defined and centrally managed
    - CONUS: Single enclave with five regional enterprise security service areas
  - Provide a Security Infrastructure that is Always On, Always Connected
- **Improve Cost of Security**
  - Cost avoidance associated with life-cycle of hardware for ~435 distinct physical TLA Stacks, by delivering the same services **through 11 Centralized Security Stacks (CONUS).**
  - Cost avoidance associated with O&M and scaling to meet emerging requirements
    - No new hardware simply add virtual instances

Envisioned Roles & Responsibility

Shared Devices & Capability

DISA:
-Physical infrastructure
- Firmware / OS maint.
-- STIG patching
- Lifecycle updates

Military Services:
- Virtualization of services
- Rule sets
-Daily care & feeding
- Retaining uniqueness & control

CONOPS/Roles & responsibilities/acquisition discussions continue with stakeholders

Opportunities

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- **Optical Upgrade RFI already completed (DISA)**
- **Physical Diversity RFI will be issued by 4 Jul or sooner (Army/DISA)**
- **RFQ for Regional Security Stack Equipment (anticipate DISA lead)**
- **ADN/EUB Switch Commodity Buys**
  - First 20-25 CONUS B/P/C/S – ongoing (Goal: Complete SW & NE regions)
  - Second buy intended to complete CONUS
  - OCONUS in planning stages
  - Independent contract actions
    - Previous contract selection will have no bearing on subsequent commodity buys
    - Products must meet technical specifications (technically acceptable with low price)
- **802.1X / Network Access Control**
  - Enterprise back end solutions
  - Enterprise End User Client Licenses
- **Outside/Inside plant still a requirement**
- **Possible new mission areas – Centralized/standardized VTC**
- **Technology Insertion**
  - Wireless – both premise and distribution-to-access layer solutions
  - PON/GPON
  - IPv6 Transition – availability of certified security tools/components and management systems
  - High bandwidth encryption devices – 100 Gb/s (R&D Effort)

SUBJECT TO AVAILABILITY OF FUNDING

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INSTALLATION INFORMATION INFRASTRUCTURE COMMUNICATIONS AND CAPABILITIES