

AFCEA-NOVA ARMY IT DAY

LandWarNet 2025 and Beyond



LTC ROBERT FERRELL

ARMY, CHIEF INFORMATION OFFICER/G-6





Overview



- **Current Army Environment**
- **CIO/G-6 Priorities**
- **Network Enablers**
- **Capacity, Security, Cloud, and Mobility Initiatives**
- **Our Network – 2025 and Beyond**
- **Cyber and Signal Way Ahead**
- **How You Can Help**





Current Army Environment



Unique Challenges

- Largest Organization in the World – 1.4M In Nearly 150 Countries
- Budget Constraints Makes Where, When and How We Can Invest Complicated
- IT Modernization – Tactical and Institutional Highways with Limited Intersections

The Charges

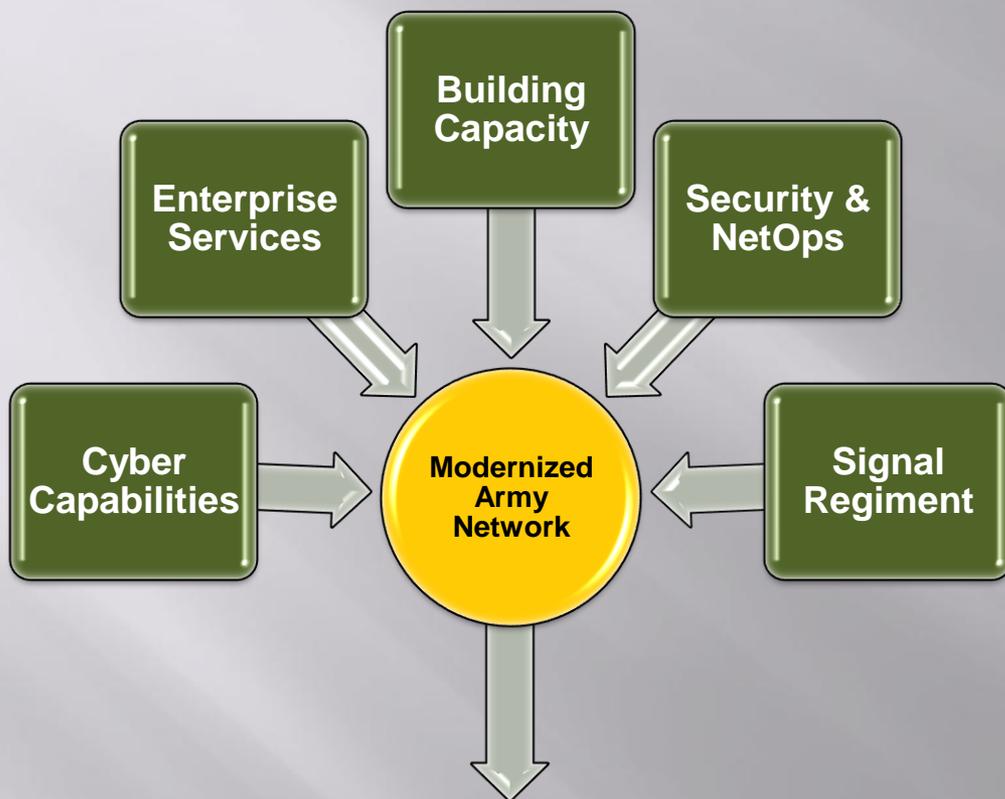
- Globally Responsive - Leaner, Smaller, Tailored, and Scalable
- Deploy Very Quickly - Get There with the Right Amount of Support Necessary
- Determine How We Can Best Leverage Available Technologies



- GEN Ray Odierno, CSA
23 Jan 2014, AUSA ILW Breakfast



CIO/G-6 Priorities



Our Approach

- Eliminate Bandwidth Constraints
- Build Resilient Transport
- Expand End-to-End Enterprise Services
- Ensure Capabilities Available from the DoD Cloud Any Time, Anywhere
- Consolidate Top-Level Security Architecture
- Expand Continuous Network Monitoring
- Continue to Advance Cyberspace Operations
- Build Highly Capable Cyber Teams
- Empower a More Cohesive, Agile, Innovative and Responsive Signal Workforce – Military and Civilian

**Increase Operational Effectiveness,
Improve Security, and Be Efficient**

Can't Afford Not To!



U.S. ARMY



Network Enablers

Advancing the Army's Capability

Army 2020

➤ *A near term way-point.
The Army of today*

Force 2025

➤ *Leaner force - equal to or
more capable than today*

**Future Army
2030-2040**

➤ *Operationally significant
expeditionary force*

- **Established Single Identity – DoD Enterprise Email** (*Completed Jul 2013*)
- **Implementing Unified Capabilities (UC)**
- **Consolidating/Closing Data Centers**
- **Killing Legacy/Redundant Applications**
- **Moving Data & Applications to Cloud**
- **Developing Enterprise Licensing Agreements (ELAs)**
- **Boosting Capacity Through Multi-Protocol Label Switching (MPLS)**
- **Closing Security Gaps with Joint Regional Security Stacks (JRSS)**
- **Enabling a Robust Mobile Environment – Devices and Apps**



Increasing Capacity & Security



- **Multi-Protocol Label Switching (MPLS)**



- **Eliminates Bandwidth as a Constraint to Enable:**
 - Home Station Mission Command
 - Split-Based Operations – ‘Less Boots on the Ground’
 - Live/Virtual/Constructive Training



- **Joint Regional Security Stacks (JRSS)**

- Collapsing the Network Boundary – Reducing 700+ Points to 23
- A Much More **Defendable Perimeter!**



More Capacity – Faster Speeds – Greater Security – Less Cost



Moving to the Cloud



- **Unified Capabilities (UC)**

- **Great Army – Air Force – DISA – Industry Partnership**
- **UC RFI Released - Managed as an Industry Service (Feb 2014)**
- **Industry Day (Mar 2014)**

- **Migrating Data & Applications**

- **Aligned with JIE – Consolidating/Closing Data Centers**
- **Closed 223 Army Data Centers → On Track to Close 533 by FY18**
 - ✓ **\$32M Estimated Cost Savings**
 - ✓ **Over 1,000 Applications Killed and 1,000 Servers Decommissioned**



**Ensuring Global Access to Mission Data Stored and Secured in the Cloud –
Accessible Anytime, Anywhere**



Mobile Environment

- Shifting Focus to **Data – Secure and Accessible**
- Should be a **Device Agnostic Environment**
- Transitioning from **Hardware to a Software-Based Environment**
- **Real-Time Collaboration Is Critical to Army Success**
- **Biggest Challenge is Getting There Fast Enough**
 - **Two-Factor Authentication is a Must**
 - **Limited RDT&E Funds – Industry Has to Help**



Untether the Soldier – Empower the Army Workforce



Our Tactical Network



RIGHT NOW

NIE 14.1

- **Transport Convergence Demonstrated (Trojan Migration)**
- **Common Operating Environment (COE) Implemented**
- HS Training Capacity Improved
- CS Baseline Refined (Dismount Network, UTR, Spectrum Re-Use)
- Operational energy Solutions Evaluated
- BCT set for Joint Operations in 14.2

NIE 14.2

- **Capabilities at the Edge (DCGS-A Tested)**
- **Initial Concept Mission Partner Environment Developed (Joint Integration)**
- CS Baseline Refined (UTR/Digital SOPs)
- Transport Convergence Demonstrated (Prophet Migration)
- Operational Agility/CP Enhancement

NEAR-TERM

NIE 15.1

- **Joint Mission Partner Environment**
- **WIN-T Increment 2**
 - Network Capabilities Architecture
 - Network Simplification and Complexities, Unit Task Reorganization (UTR), NetOps, Cyber Security, COMSEC
 - Small Unit Training Enablers and Integrated Training Environments (ITEs) to Support Home Station Training on Mission Command and Capability Sets

NIE 15.2

- **Validate Capability Set (CS) Network Architecture; Inform CS Network Design**
 - Fires Digital Messaging Requirements
 - Transport Convergent PH 1 (INTEL)
 - Role-based functionality for Command Post Computing Environment (CPCE) Widgets
 - Conduct unplanned Inter Brigade/Intra BCT UTR
 - Integrated Training Environment

FUTURE

NIE 16/17/18...

NETWORK GOALS

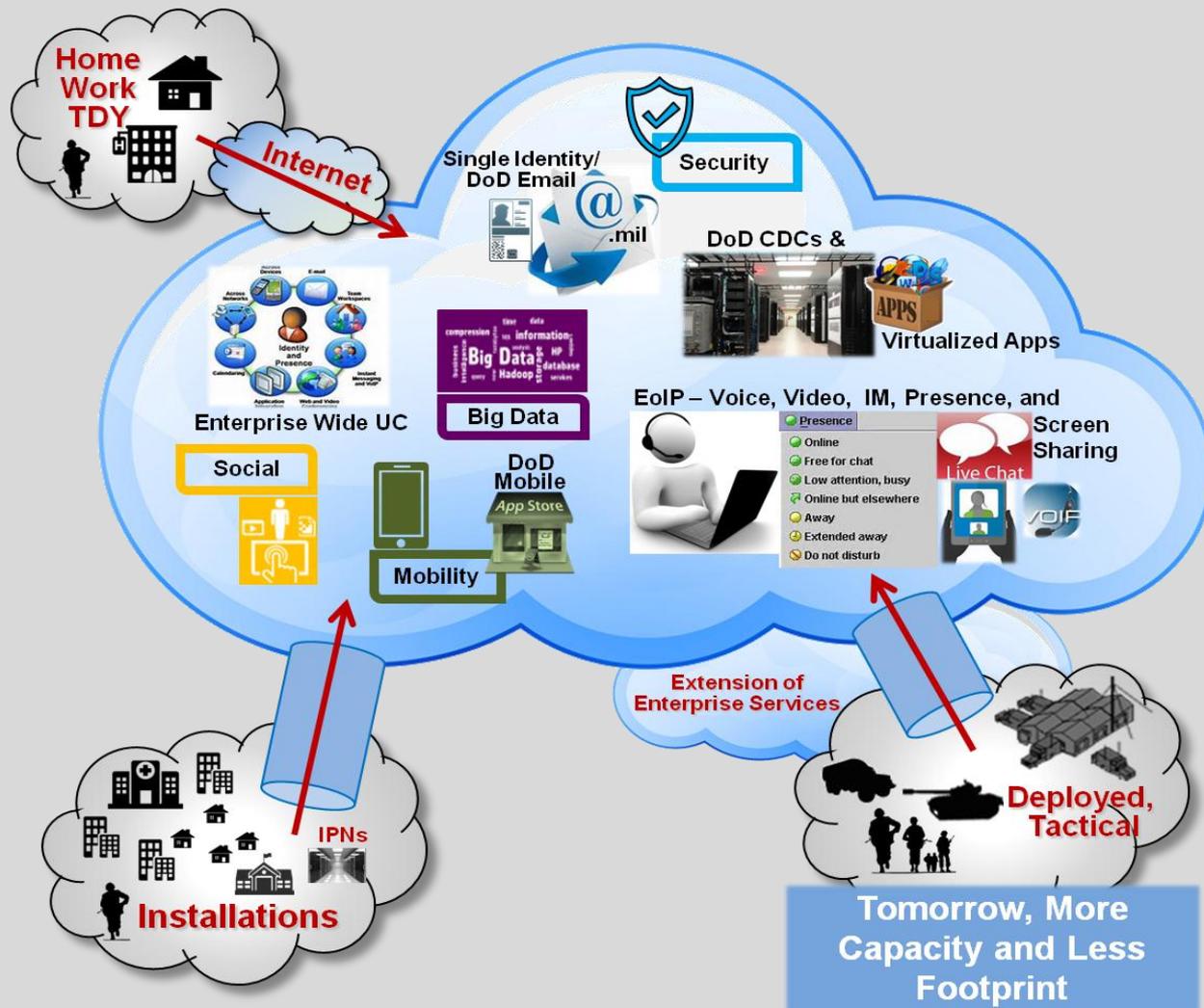
- **Build Capacity**
- **Implement the COE**
- **Deliver Network Operational Utility and Adaptability**
- **Deploy Integrated Capabilities to the Warfighter**





Our Network – 2025 and Beyond

- Single End-to-End Network
- Modernized From Strategic Core to the Tactical Edge
- Deploy Little to No Notice Anytime, Anywhere in Austere Environments
- Live/Virtual/Constructive Training
- Incorporate DoD Requirements
- Standardized Network Operations and Management





Cyber and Signal Way Ahead



- Establishing Cyber Center of Excellence and ARCYBER/Second Army Headquarters at Ft Gordon



- Establishing a Signal and a Cyber School Along with TRADOC Capability Managers

- Cyber Mission Forces Are Standing Up / Cyber as a Branch is Being Developed
- Growing Need for Software Tool Development to Support Cyberspace Operations
- Continuing to Optimize Training and Development for Workforce





How You Can Help



- **Challenging Times – Appreciate Your Partnership**
- **Be Good Stewards – Continue to Help Drive Competition and Innovation through NIEs and ELAs**
- **Help Us Focus on Software Solutions and the Common Operating Environment (COE)**
- **RDT&E / IRAD – Finding the Right Balance for Investing in the Future**
- **Mutual Commitment to Work Together**

Keep us the Best Land Force in the World – for Force 2025 and Beyond



Thank You ::: Questions

