Purpose: Provide an overview of the strategic initiatives the Army CIO/G-6 is pursuing in the areas of Information Technology and Information Management

Agenda
- CIO/G-6 Mission
- LandWarNet
- Future Combat Systems
- Managing our IT Resources
- Battle Management Language
- Closing thoughts
Army CIO/G-6 Responsibilities

As the Army Chief Information Officer (CIO), report directly to the Secretary of the Army for setting the strategic direction, objectives, and supervising all Army C4 and information technology functions. (Title 10 U.S.C. Sec. 3014(c)(1)(D)).

- Responsible to manage and oversee the Army-wide implementation of Clinger Cohen Act mandated functions and policies to comply with public laws, Office of Management and Budget, Department of Defense, and Department of the Army guidance.

As the Army G-6, support the Army Chief of Staff and Army Staff in performing information management, network operations (including computer network defense), force structure, and the equipping and employment of signal forces.

Army CIO/G-6

➢ Vision:
Deliver a joint net-centric information enterprise that enables warfighter decision superiority.

➢ Mission:
Provide architecture, governance, portfolio management, strategy, C4 IT acquisition oversight and operational capabilities to enable joint expeditionary net-centric information dominance for the Army.
### 500-Day Plan Goals

- **Develop and maintain** a secure, seamless, interdependent LandWarNet Network
- **Lead enterprise integration** to achieve decision superiority by transforming **processes, applications and data** into network-centric capabilities across the Army
- **Protect and defend** the Army’s systems, networks, and information
- **Ensure Army information management and information technology investments** maximize Joint and Army capabilities
- **Develop the Army’s information technology and information management knowledge and skills** to support mission needs
- **Deliver an integrated enterprise strategy** that influences Joint and Army use of information management and information technology in furthering the warfighting capabilities.
Network Service Center Constellation: LWN’s Key Enabler for the Global Collaborative Environment

- Situational Awareness / Understanding
- Global Context for Mission Execution
- Precisely tailored consequence-based execution
- Globally-based service / support capabilities
- Network tailors means of delivery to meet battlespace situation

- Near-instantaneous Availability
- Continuous Expeditionary Identity
- Content Staging
- Responsive Network Maneuvers

GENERATING FORCE

1. O&M network security systems / devices at the enterprise level
2. Manage all external network access controls
3. Check computer security status and update security patches at log-on
4. O&M data at rest encryption for storage systems
5. O&M 3 major enclaves: common user (email, web, storage), application hosting, and server hosting

Army Processing Centers

- Provide COOP and Disaster Recovery capabilities
- O&M data replication between APCs
- Provide electronic storage of data for applications
- Provide electronic staging of content for users
- Provide remote access via VPN capability for Microsoft OS environments

18 May 2006

18 May 2006
Planned World Wide Fixed Regional Hub Nodes (FRHNs)

Support BCT, Division, ESB, MBCOTM, A2C2S & Joint Community

Five Planned Locations World Wide provide complete and overlapping coverage of Combatant Commanders' Area of Responsibility

What does it provide to the warfighter?

“Converged IP”
- Voice over IP
- NIPR/SIPR
- VTC/SVTC
- DSN/DRSN
- Commercial & Military SATCOM

Deployed Now!
Provides up to 119 Mbps of Commercial SATCOM Bandwidth

Spiral in:
- Ka Band
- Operations on the move
- Wireless LAN

What does it provide to the warfighter?
Extending the Network in COIN Operations
Success of 10th MTN SPOP/Quicklink Support to the Warfighter

Company
Task Force
and Below

- Afghanistan
- Helicopter Deployed System on Side of Mountain

SPOP Provides
- CDR Huge Flexibility to Maneuver Network
- Scalable Multi-Network Capable
- Deployable Network Extension
- Seamless with JNTC-S--No Stovepipe
- Easy to Install, Operate & Maintain

"Before I maneuver my forces, I determine what network asset I have—the network (SPOP) has enabled my companies with real time Battle Command to execute the COIN fight" - - CDR, TF Chosin

Future Combat Systems 14 + 1 + 1
FCS System-of-Systems (SoS)

Domain Responsibilities

Army Alignment with GIG ES Governance

<table>
<thead>
<tr>
<th>Business Mission Area (BMA)</th>
<th>Warfighting Mission Area (WMA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>Governance</td>
</tr>
<tr>
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</tr>
<tr>
<td>Acquisition</td>
<td>Focused Logistics</td>
</tr>
<tr>
<td>Financial Management</td>
<td>Battlespace Awareness</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>Force Application</td>
</tr>
<tr>
<td>Installations &amp; Environment</td>
<td>Force Protection</td>
</tr>
<tr>
<td>Logistics</td>
<td>Net-Centric</td>
</tr>
<tr>
<td>Civil Works</td>
<td>Force Management</td>
</tr>
<tr>
<td>Core Enterprise Services</td>
<td>Training</td>
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<tr>
<td>Information Assurance</td>
<td>Command &amp; Control</td>
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</tbody>
</table>

Enterprise Information Environment Mission Area (EIEMA)

<table>
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<tr>
<th>Communications</th>
<th>Computing Infrastructure</th>
<th>Core Enterprise Services</th>
<th>Information Assurance</th>
</tr>
</thead>
</table>

Defense Intelligence Mission Area (DIMA)

Army Lead: G-2

Governance

Domains TBD

4 Mission Areas:
- 18 Domains
Commercial Applications present information as apprehended, commonly shared images to accelerate understanding.

**IT Construct**
- Connect
- Identity
- Services
- Relevant Data

**Applications**

**Standards:**
- Common Data Generation
- Tailorable Displays
- Enable Data Fusion & Exchange

**Capability**

**Applications Facilitate Doctrine-Based Capability “Orchestration”**

**Develop Common Image**
- COP query/floor display
- Share Common Visualization

**Accelerate Understand**
- Analysis/Estimates
- Consequence Modeling
- Correlation/Fusion

**Decide First**
- Plan/Orders
- Task Organizing
- Disseminate the Plan

**Act Decisively**
- Collect & Disseminate
- Real-Time Intel
- Answer & Bin CCR's
- Modify the plan as we fight

**Adapt**

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**Commercial IT for Battle Command**

Transitional Battle Command Systems from specialized workstations to Commercial-Off-the-Shelf laptops

Introduced Net-centric, XML-based Publish & Subscribe Architecture

Adopted Commercial Applications to meet SASO and collaboration requirements

16 May 2006
**DoD Data Strategy**

**Current Information Sharing Challenges**
- User UNAWARE information exists

**Net-Centric Data Strategy Tenets** (DoD Directive 8320.2)
- Visible
  - Advertise Information Holdings ("Tag" Data)
- Accessible
  - Web Enable Sources
  - Remove Impediments—"Need to Share"
- Understandable
  - Communities of Interest (COIs)—Shared Vocabularies

**Army Data Strategy**

**Center of Excellence (CoE) Services**

**One-Stop Shop for COI Product Development and Service Support**

**Data (COI) Admin**
- Coordinate & Facilitate COI meetings and product development schedules
- Perform administrative activities
- Liaison between DS Policy makers and Programs/Systems of Record
- COI Collaboration
- COI Administration Templates

**Data Engineering**
- EER Analysis (OV-5)
- Data Architecture products (AV-2, OV-7, SV-11)
- Develop COI/Enterprise Ontology
- List Authoritative Data Sources
- Discover Enterprise Identifiers (EIDs)
- Data Engineering Practices Guide

**Data Validation**
- Validate data products
- Assist in resolving data interoperability issues
- Support test and evaluation activities across COIs
- Audit system implementations of data products
- Validation Practices Guide
- Ontology Validation Tool

**Configuration Management (CM)**
- CM COI Products (IESS, Data Models, Ontology, …)
- Support MA CM
- Support CM infrastructure across enterprise
- CM Template Guide
- US-JC3IEDM CM

**Reduce Cost, Leverage Expertise, Maximize Efficiency**
Strike Community of Interest

**Purpose**
Strike COI will deliver net-centric web services enabling authorized users to discover, access and collaborate on the data necessary to conduct time sensitive planning for Strike missions.

**Goal**
Ensure users have knowledge and access to usable data, when needed, anywhere on the GIG

**Accomplishments**
- Consensus on a minimum Strike Spiral 1 vocabulary. Goal – Joint C2 vocabulary
- Use Geographic Markup Language (GML), Defense Discovery Metadata Specification (DDMS), and Intelligence Community Information Security Marking (IC ISM) as the basis of Strike’s vocabulary.
- Achieved consensus on need to continue harmonization of POR vocabularies to achieve a common Strike schema and data dictionary. The intent is to keep the core small.

**Strike COI Schema Approach**
- Existing data schema will be selected for use without modifications.
- An existing schema will be selected for use and extended based on the Strike vocabulary by adding additional data elements defined by Strike and/or by externally referencing other schemas (changes to other schemas will be submitted to owning COI).
- A new foundation schema will be developed and extended as described above.

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SOA for Tactical Environment

**Unit Sites**
Tailored by Unit from PEO C3T provided Web Applications

**Web Applications**
Provided, Developed, Integrated by PEO C3T

**Infrastructure Services**
Provided, Supported, Integrated by PEO C3T

**Foundation**
Provided by both FusionNet and CIDNE
Provided by ABCS & External systems
Provided by SOA Foundation
**Battle Management Language (BML)**

- **BML is an unambiguous language**
- **Logical evolution in DoD’s Data Strategy**
- **BML is being developed as a standard method for implementing executable plans, orders, requests, and reports for.**
- **Military units, simulated forces, and future robotic forces.**

**Applies to Joint Command and Control, Training, Integration/Interoperability, and standards based Net-Centric Operations**

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**Summary**

- The Army has been transforming for over a decade
  - Today - at warp speed - structure and a significant infusion of IT
- The critical enabler to Army transformation is information technology!!
- The Army is an integral component of effective Joint Operations.
  - All forms of interoperability are critical enablers for Joint Operations.
- Transforming to commercial standards in support of net-centric operations
  - Converging information services - voice, data, video....
  - Providing bandwidth to Battalion & Company level...
- There is a growing need to support unmanned systems
- Battle Management Language can provide some of the required critical capabilities
- Our Transformation is an Army/industry effort - we all need to work collaboratively to achieve our goals
Questions and Thoughts

Mr. Vernon Bettencourt
Deputy, Chief Information Officer/G-6

Call to Duty: Boots on the Ground