DRAFT

INFORMATION MANAGEMENT/ INFORMATION TECHNOLOGY (IM/IT)

8 September 2011

Advanced Planning Briefing to Industry

MR. SCOTT WHITE
IM/IT TRAIL BOSS
Joint Program Executive Office
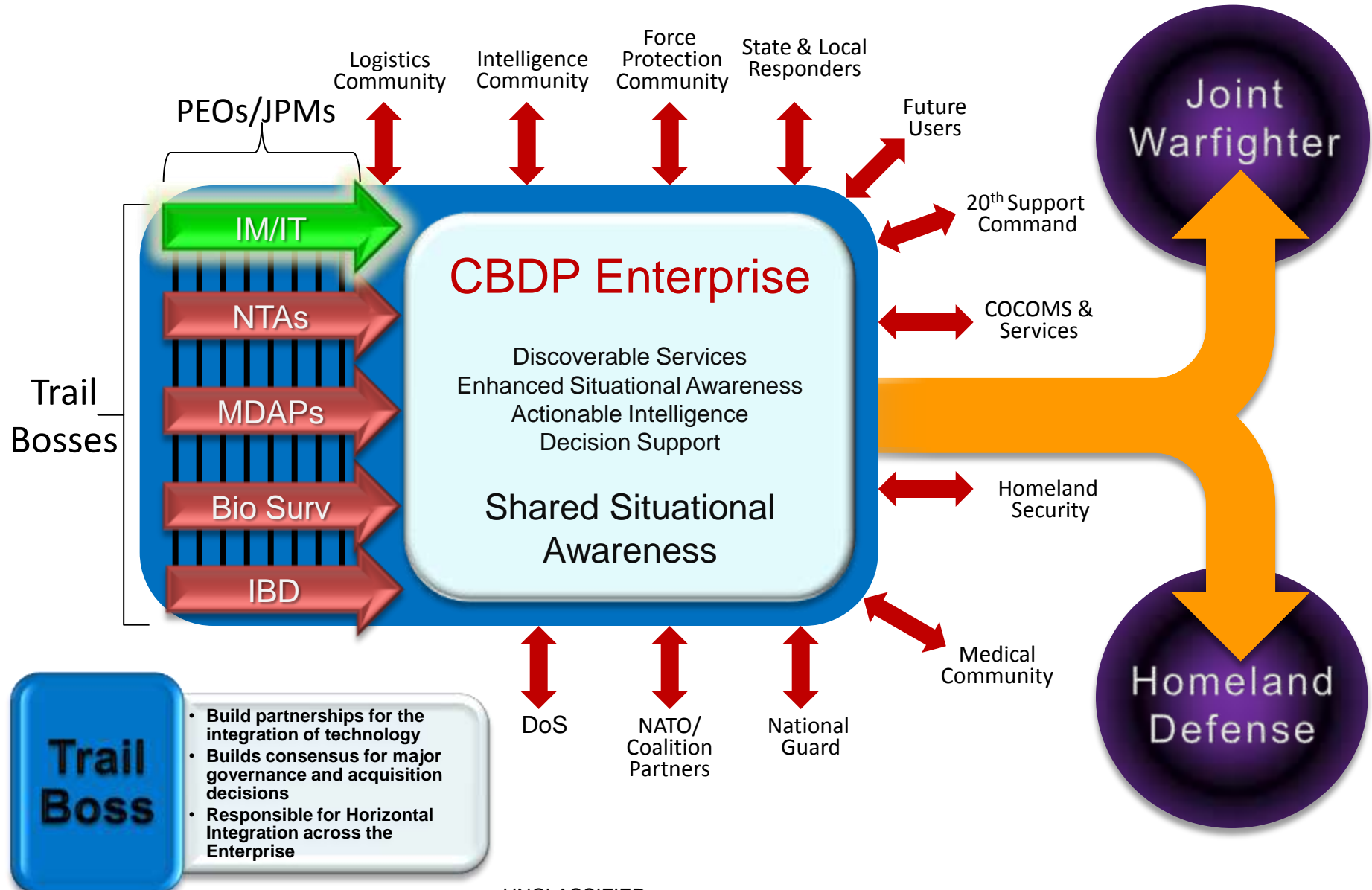**for Chemical and Biological Defense**
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IM/IT Agenda

- JPEO-CBD Enterprise Management
- The Big Picture
- Benefits of IM/IT Approach
- IM/IT Enterprise Trail Boss Focus
- BSP – U Deployment in USFK
- IM/IT Capability Lifecycle Integration Architecture (CLIP)
- IM/IT Enterprise Book Shelf
- IM/IT Enterprise Systems Engineering (SE)
- Challenges

JPEO-CBD Enterprise Management

PEOs/JPMs

Trail Bosses

- IM/IT
- NTAs
- MDAPs
- Bio Surv
- IBD

Logistics Community

Intelligence Community

Force Protection Community

State & Local Responders

Future Users

20th Support Command

CBDP Enterprise

Discoverable Services
Enhanced Situational Awareness
Actionable Intelligence
Decision Support

Shared Situational Awareness

COCOMS & Services

Homeland Security

Medical Community

DoS

NATO/ Coalition Partners

National Guard

Joint Warfighter

Homeland Defense

Trail Boss

- • Build partnerships for the integration of technology
- • Builds consensus for major governance and acquisition decisions
- • Responsible for Horizontal Integration across the Enterprise
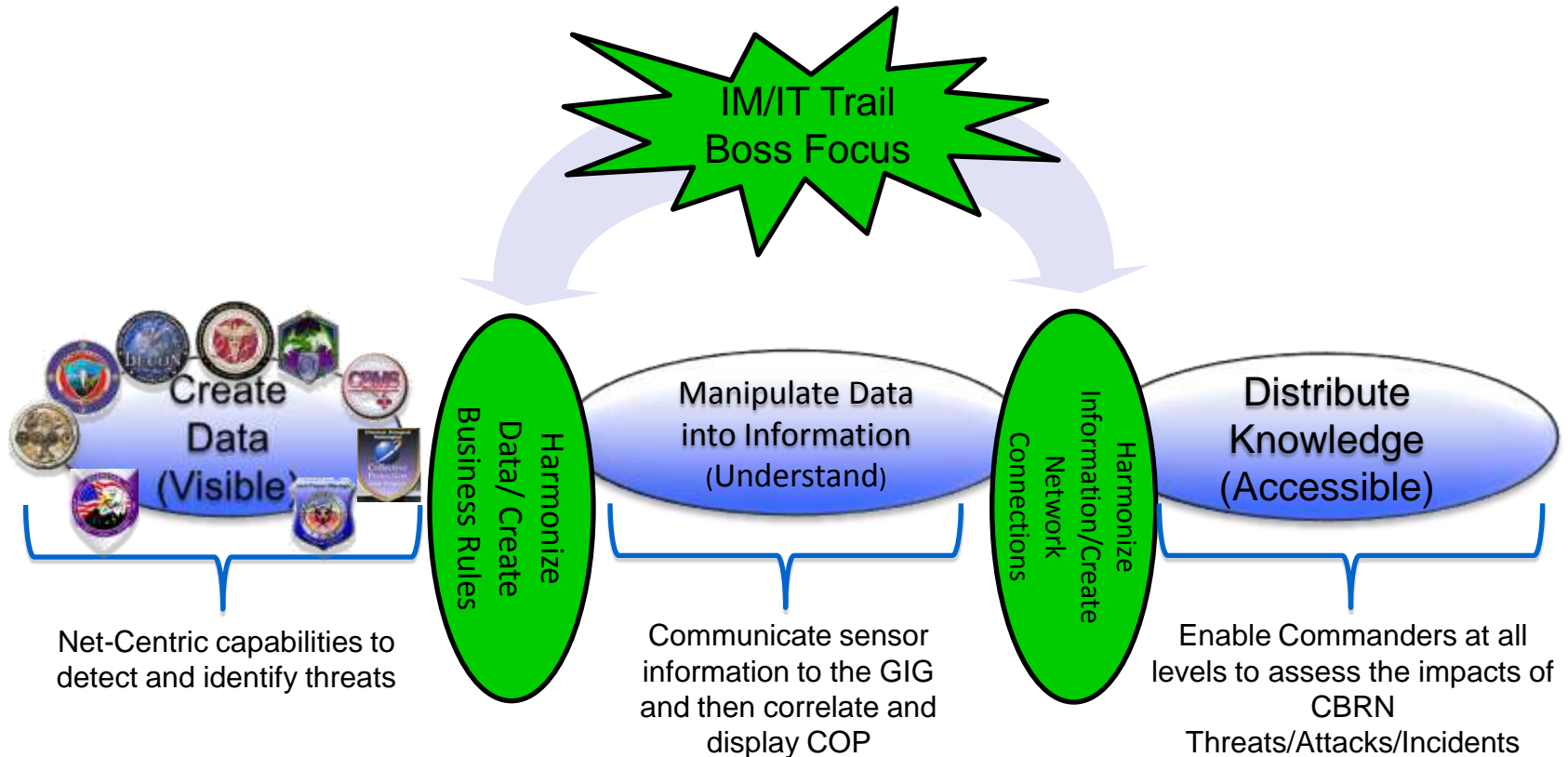
Benefits of IM/IT Approach

The IM/IT Enterprise is composed of:

- Reference architecture
    - Common standards and protocols
    - DISA approved services
    - Common data model
- Validated JPEO-CBD services and components
- Standardized development and integration processes
- Fully capable Systems Integration Lab (SIL)
    - Integration of capabilities for Bio-Surveillance and other mission areas
    - Vetting and transition of S&T capabilities
    - Management and support of deployed capabilities

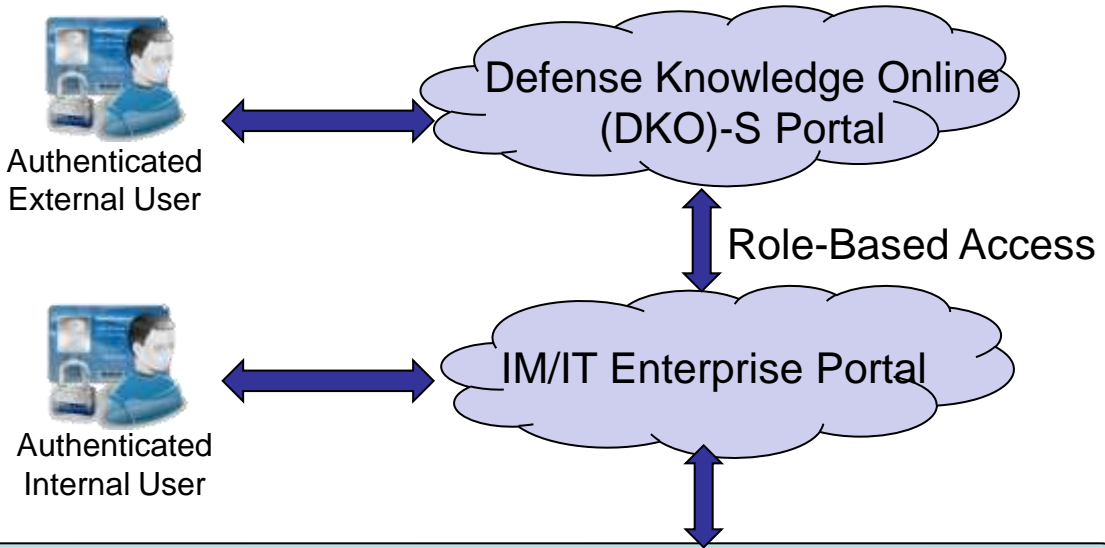*Delivery of the right information to the right person at the right time*

IM/IT Trail Boss Enterprise Focus

IM/IT Trail Boss Focus

Create Data (Visible)

Harmonize Data / Create Business Rules

Manipulate Data into Information (Understand)

Harmonize Information/Create Network Connections

Distribute Knowledge (Accessible)

Net-Centric capabilities to detect and identify threats

Communicate sensor information to the GIG and then correlate and display COP

Enable Commanders at all levels to assess the impacts of CBRN Threats/Attacks/Incidents

BSP – U Deployment in USFK

Defense Knowledge Online (DKO)-S Portal

Authenticated External User

Role-Based Access

IM/IT Enterprise Portal

Authenticated Internal User

IM/IT Enterprise Backbone

- CBRN Sensor Data
- Warning & Reporting
- Bio Surviell Data
- Hazard Prediction
- Decision Support
- Incident Management
- Planning & Analysis
- New Services

ESB/BPEL reference architecture

Net-centric Services

OSGI/App Server reference architecture

IM/IT Portal internal users have role-based, authenticated access to IM/IT services through a DoD-common portal. The portal provides a bridge between legacy CBD information providers and future systems.

External users will be able to access the IM/IT portal through DKO-S and will be able to access information based on their role and need to know.
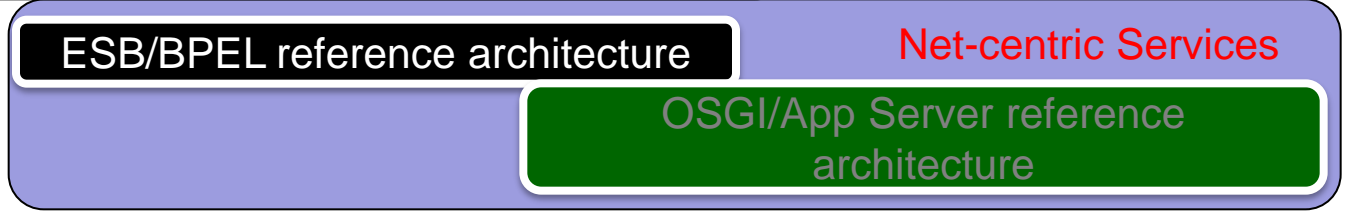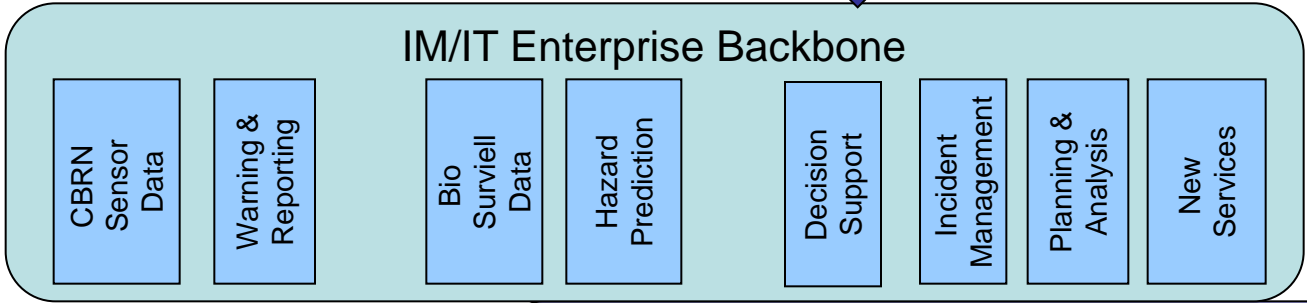
IM/IT Capability Lifecycle Integration Architecture (CLIP)

Portal Server

Requirement toolset	Architecture Design toolset	Scheduling toolset	Collaboration toolset	Configuration Mgmt toolset	Training Product Center	Help Desk	App Store

- **Definition of common integration standards and processes for capturing requirements, Managing Software development processes and Data validation strategy**
- **Elimination of redundant capabilities thru centralized requirements and configuration management tools**
- **Comprehensive training products from a common logistic entity**
- **Comprehensive "one-stop" system support for war-fighters via a unified help desk and Software delivery strategy**
- **Real time software component services and data that can be easily integrated as tools and services**
- **Clearly defined organizational roles and responsibilities of information system support within program of record and representation to stake holders**
- **Expandable and adaptable enduring capability that will continuously leverage emerging technologies**

Production Reference Architecture and Inherited Capabilities

Application Server

JSR-268 Portal reference architecture

Alert Portlet	Map Portlet	Content Mgmt	App Store

Delivery of a realized capability module, deployed within the IM/IT production enterprise

- **Actionable data presented both within the IM/IT domain and to external stakeholders (system to system communication)**
- **Improved access to timely mission critical actionable information thru fused data products**
- **Expandable and adaptable enduring capability that will continuously leverage emerging technologies**

ESB/BPEL reference architecture

- **A messaging and routing subsystem that integrates existing JPEO-CBD information system outputs into an environment that can detect threats, collect and disseminate appropriate data and make relevant information accessible to those who need it – in essence facilitate early warning, assessment and reporting to address an incident.**
- **A workflow execution engine that utilizes the messaging and routing subsystem to adapt to changing warfighter TTPs and the incorporation of additional capability modules, authoritative data sources, and optimizations within the enterprise**

OSGI/App Server reference architecture

The IM/IT Enterprise will initially integrate appropriate JPEO-CBD stand-alone products into the CMF (mainly JWARN, JEM, CCSI, CCMI, Data Model (and associated Web-Service) and DSS 5.0). Common hardware specifications and interfaces will connect into one location and the software components will be used to normalize the data for IM/IT enterprise client consumption.
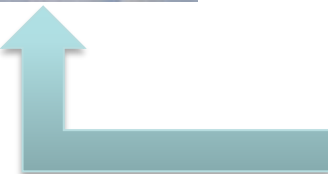
IM/IT Enterprise Book Shelf

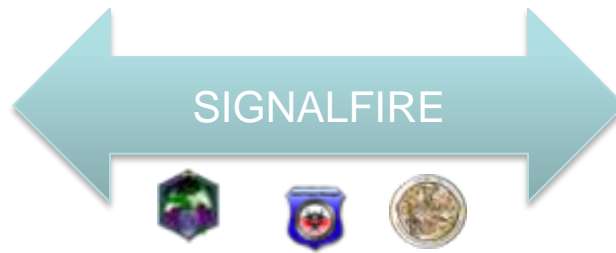Medical Informatics for Therapeutics

MIL-CIV integration

Warfighter Readiness

SIGNALFIRE

Medical Surveillance

IM/IT Enterprise
Systems Engineering (SE) Tools

Enterprise Systems Engineering Tools environment established to address consistency and visibility across:

- Requirements Management: Piloting Jama Contour

- Architecture: IBM System Architect (SA) and XT (Web Client)

- Feature / Problem Tracking: ALTASSIAN JIRA

- Software Configuration Management: TeamCity with Subversion and Maven

- Scheduling: Microsoft Project Server

- Collaboration and Knowledge Management: SharePoint / Defense Connect Online (DCO) / Army Knowledge Management (AKO) / Defense Knowledge Online (DKO)

Challenges

- Standardization of solutions to CBRN Business Domain and Warfighter Domain issues

- Identification of COTS products to enable the IM/IT Enterprise Execution Strategy (cost/licenses are an issue)

- Provision of mature IM/IT platform for Biosurveillance initiatives and programs
  - USFK Biosurveillance Framework (UBF)
  - Joint Biosurveillance Communication Framework (JBCF)
  - Next Generation Diagnostic System (NGDS)
  - Environmental Biosurveillance System (EBS)
  - Global Ops

Key Points of Contact

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