UNCLASSIFIED

Joint Program Executive Office for Chemical and Biological Defense

CBRN IS and Enterprise IM Strategy

JPM Information Systems
San Diego, CA

Mr. David Godso
Chief Engineer and CIO

April 2014

Distribution Statement A: Approved for public release; distribution is unlimited.

JPM IS Mission

- **The mission of the Joint Project Manager for Information Systems (JPM IS) is to provide the information architecture and applications for shaping the battlespace against the Chemical, Biological, Radiological and Nuclear (CBRN) threat.**

- **JPM IS provides the Warfighter with integrated early warning capability, an accredited hazard prediction model, state-of-the-art consequence management, and course-of-action analysis tools.**

- **JPM IS provides the Warfighter enhanced situational awareness and decision support for CBRN hazards.**

Strategic Outlook

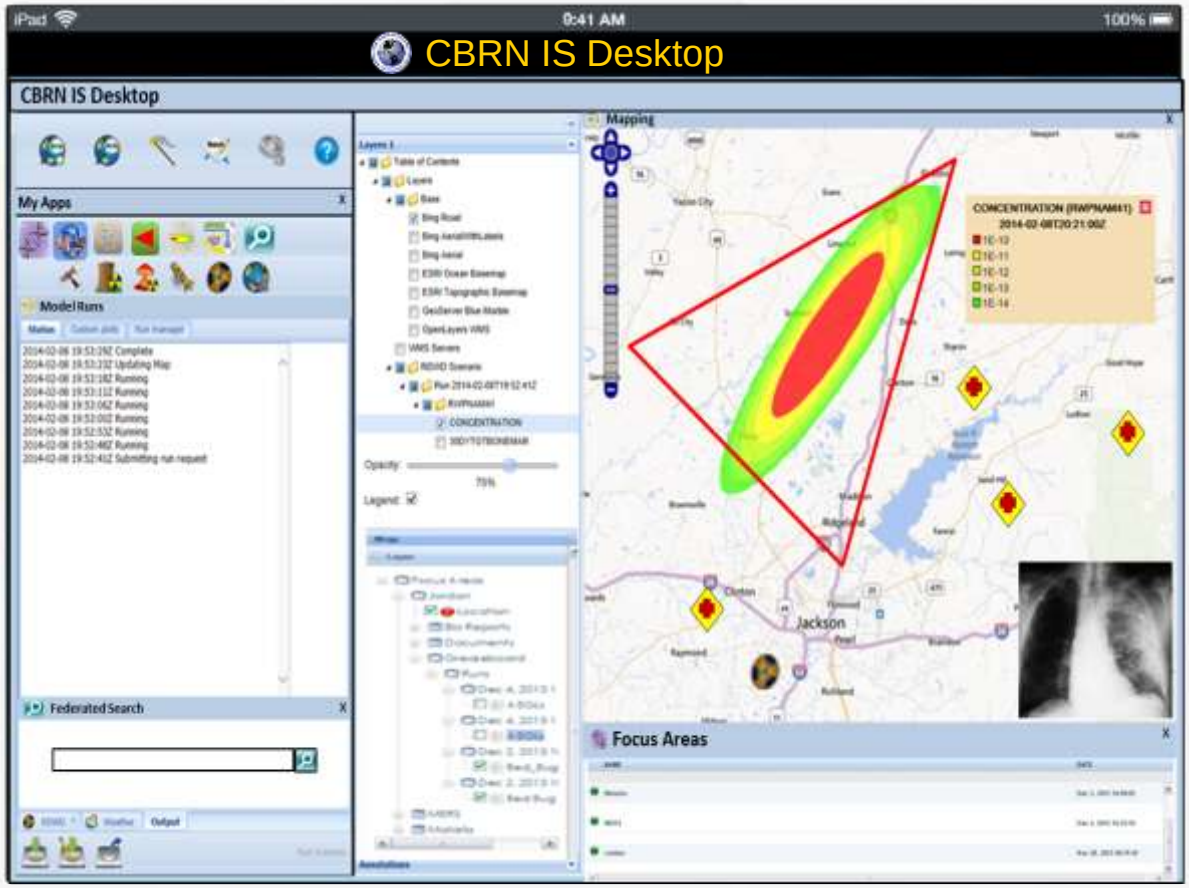
- Develop and execute a Family of Systems (FoS) acquisition approach for Joint Program Executive Office Chemical Biological Defense (JPEO-CBD) products and services (CBD sustainable product line)
- Provide an "End-to-End", easily accessible set of CBRN Enterprise capabilities through web services utilizing Service Oriented Architecture (SOA)
- Provide timely, fused, and easily accessible information to the Joint Warfighter, CBDP Community of Interest, civil and international partners
- Reduce Command & Control Systems (C2) integration cost, redundancy, and allow for stove pipe capability through an Enterprise Services Approach

"Implement cloud computing as the means to deliver the most innovative, efficient, and secure information and IT services in support of the Department's mission, anywhere, anytime, on any authorized device."

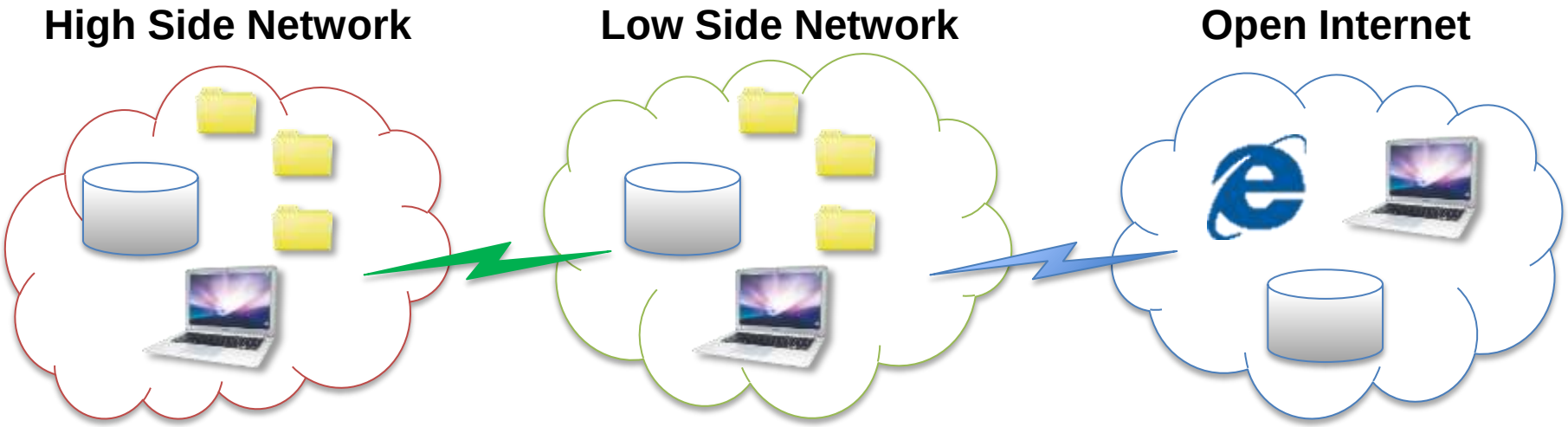
-DoD Cloud Computing Strategy, 2012

CBRN IS Vision

(Fully Integrated User Defined Desktop)



Hosting and Access Strategy



Accessible Anywhere Utilizing the Latest Widget Framework for Advanced Applications

Ozone Widget Framework (OWF) Common Architecture

Key FoS Capabilities

- Provide real-time discovery of data that can be easily integrated with tools and services (i.e. “net-centric”)
- Enterprise information systems environment that will detect threats, collect and disseminate appropriate data, and make relevant CBRN services and information accessible to those who need it
- Improved access to timely, mission critical fused data products
- Mission defined workflow development
- Comprehensive FoS training of products from a common logistics entity
- Comprehensive “one-stop” system to support warfighters through a unified help desk

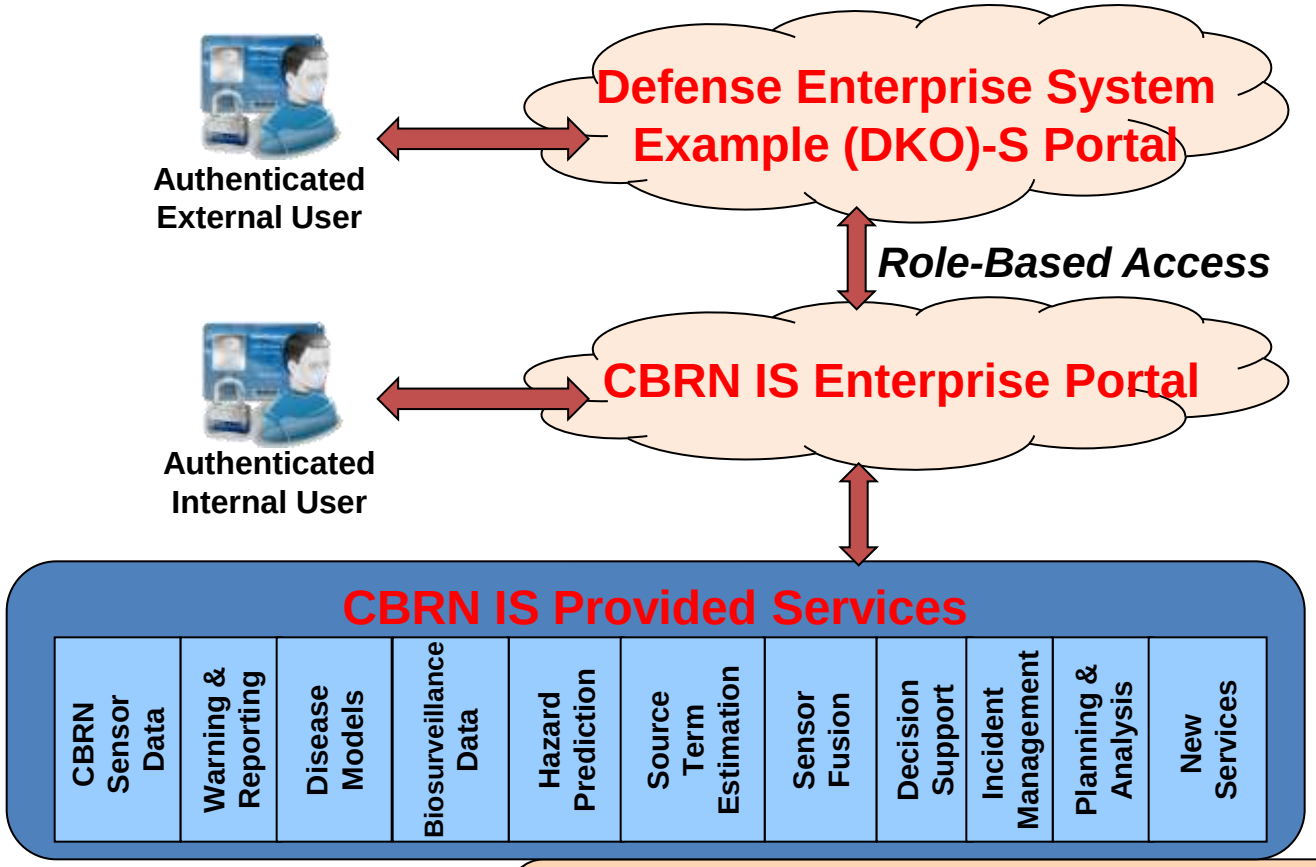
Provide CBRN FoS Capabilities via an Enterprise Services Approach

Implementation Strategy

- Promote S&T standards that allow for quicker technology updates and insertion into product lines
- CBRN Information Systems (CBRN IS) Enterprise will initially integrate appropriate JPEO-CBD products into a FoS framework (to begin with JWARN, JEM and BSP)
  - Align validated requirements into an enterprise approach
  - Utilize proven sustainable capabilities as building blocks
  - Align and expand to support the enterprise
- Utilize Agile Development within the IT Box Acquisition Strategy to provide for the spiral development and fielding of modular capability packages
  - Allows for better alignment and quicker delivery of S&T products into the program
  - Allows for accelerated development, and for fielding mature and high-priority capabilities
  - Allows greater flexibility for changing IT architecture and technology

Create an Expandable and Adaptable Enduring Capability that Will Continuously Leverage Emerging Technologies

Portal for CBRN IS "Cloud" Services

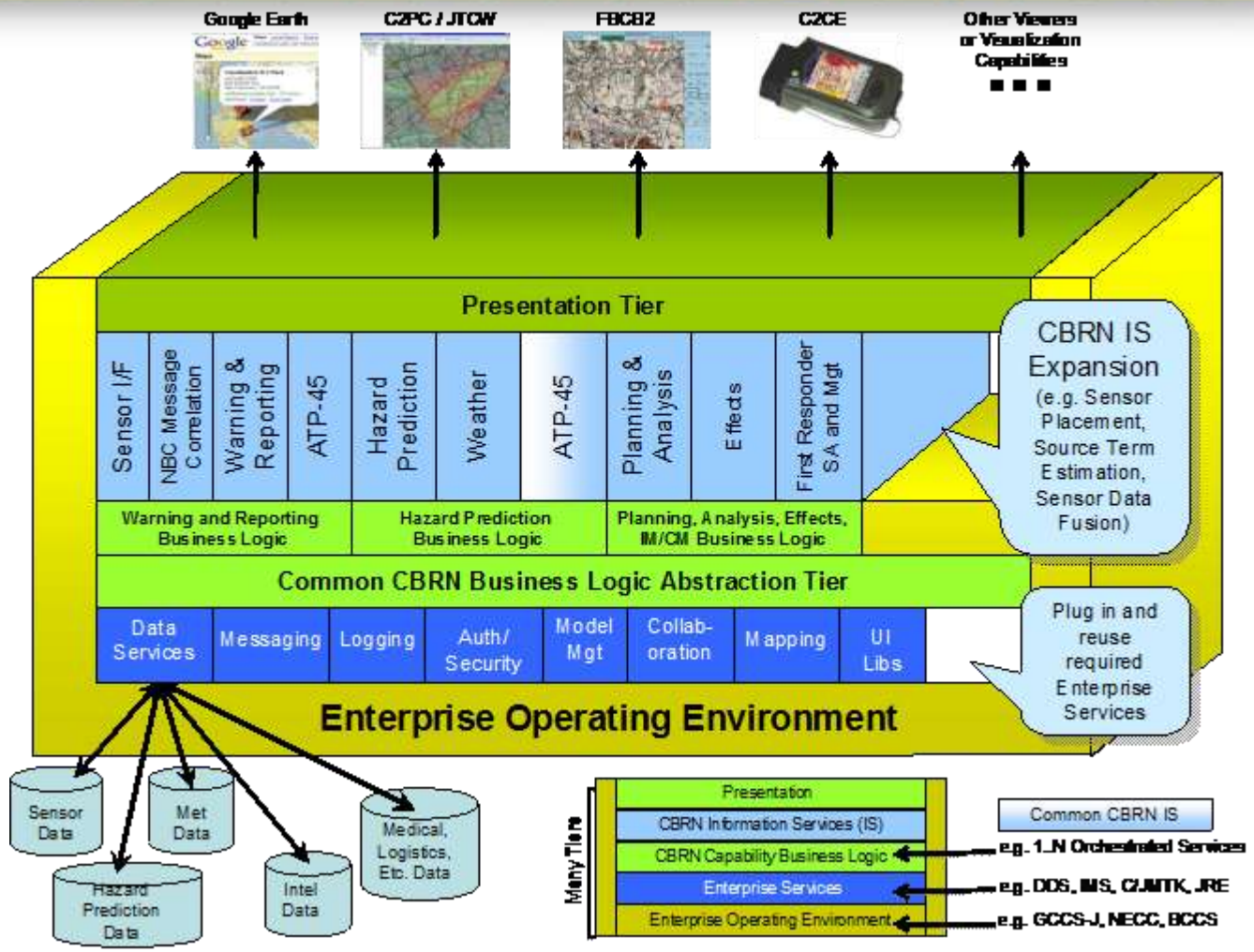


* External users will be able to access the CBRN IS portal through an authorized Defense Enterprise Portal System and will be able to access information based on their role and need to know.

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

Flexible Open Architecture

- Easy integration of emerging capabilities
- Supports different installation configurations
  - Single laptop
  - Web based server access
- Assures future compatibility and scalability
  - Standards based
  - Leverages existing investment by DoD
  - Aligned with Programs of Record
  - Interfaces to any C2 system for track/COP
  - Can be tailored to service specific requirements



Way Forward

- JPM IS will:
  - Architect and build CBDP FoS that are loosely coupled SOA common components that can serve many different operational purposes, with Enterprise Governance
  - Build multi-use systems (e.g. CIV/MIL) to maximize return on investment
  - Provide a consistent set of technology/information-feeds and services that follow the same standards
  - Make CBRN services and data accessible to the Enterprise so the information can be found, mined, "pattern-recognized"
  - Then, provide capabilities: fusion, tipping/cueing, dynamic workflows, and leverage the "hard" chemistry/physics algorithms (e.g. source term estimation, biosurveillance, false alarm reduction)
- Where help is needed:
  - Stove-piped funding and requirements must be horizontally aligned to FoS and Product Lines
  - Transformation of the DoD systems engineering lifecycle (particularly in T&E, IA, and JITC) is required to support quicker fielding of information technology capabilities

Provide the CBRN Enterprise Information Infrastructure Foundation to Enable a FoS Approach to Acquisition of IT Products/Services

Summary

- JPEO-CBD CBRN IS Enterprise implementation path is designed to meet CBDP requirements**, but we need to think more strategically with regard to information requirements.**
- CBRN IS Enterprise Web Services approach provides increased interoperability, reduced integration cost, and more readily accessible CBRN tools and information.
- **Agile Development of modular capability packages utilizing common open architectures and standards, will allow for reduced development, testing, and fielding and sustainment costs.**
- **Modular standalone capability sets retain the ability to provide specific capability to the tactical user with limited or no connectivity at the tactical edge.**

Focus Area

Software Support Activity (SSA)

Software Support Activity (SSA)

SSA is a non-acquisition, enterprise-wide support organization

The JPEO-CBD SSA is a service-oriented organization for the JPEO-CBD that supports the JPMs and JPEO-CBD Directorates by providing timely and professional assistance with all CBRN Defense program information technology policies, standards, interoperability, information assurance, and supportability needs to facilitate net-centric enterprise- wide integration of JPEO CBD systems. Identification and reuse of common standards, protocols and open architectures across JPEO CBD programs facilitates the development and integration into the larger CBRN enterprise information system.

PM: Information Systems
Requirement Doc(s): NA
- Established August 2004 through JPEO CBD Charter

Stakeholders: JPEO-CBD JPM's, JPEO-CBD Directorates, Services, CBDP COI's, and Industry
Contractor: Multiple

SSA initiatives are consistent with the objectives of:
- JRO Joint Priorities List
- DOD CBDP Program Strategy Guidance
- CJCS Joint Vision 2010 and 2020
- Army Software Transformation Strategy

Mission Areas

Data Management	Standards and Policy	Architecture
Information Assurance	Common CBRN Sensor Interface	IM/IT

Program Strategy Guidance

Facilitate the horizontal integration of CBDP Programs, IM/IT products, and their services and capabilities across the enterprise to achieve the JPEO-CBD Enterprise vision, mission and direction.

SSA Focus Areas

Architecture

- Promote and develop integrated architectures, net centric strategy and SOA compliance across JPEO CBD systems and programs
- Developed Contract/Acquisition Language to support net-centricity and SOA
- Common CBRN Sensor Interface (DoD CBRN Sensor Integration Standard)
- Support the development of Architecture views for JPEO CBD programs

Data Management

- Promote interoperability and CBRN Data Model across JPEO & related COIs
- Provide CM for Data Model and Data Schemas

Information Assurance

- Understand DoD DIACAP processes (e.g., Army, Navy)
- Assist and/or develop DIACAP and IA documents (e.g., DIP, SIP, IA Strategy, etc.)

Standards & Policies

- Build and maintain repository of reusable artifacts that can be operationalized across the enterprise (key policies, instructions, guidelines, templates, checklists, etc.)

JPM IS/IM IT Liaisons

- To provide on sight support, guidance and coordination of SSA and IMIT activities

SSA Current Activities

JPM Information Systems

- Updating architecture products for JEM ,JWARN, and BSP.
- Providing Information Assurance support for JWARN reaccreditation and Host Based Security System (HBSS) administration.
- Providing NR KPP guidance for the JEM Requirements Definition Package (RDP) and BSP Capability Development Document.

JPM Medical Countermeasure Systems

- Providing Information Assurance input on NGDS acquisition documents, such as IA Strategy, PPP, and LCMP.
- Providing HL 7 compliance guidance to NGDS.

SSA Current Activities (Continued):

JPM Radiological Nuclear

- Updating architecture products for Radiological Detection System (RDS) and Joint Personal Dosimeter (JPD).
- Providing software engineering guidance to RDS and JPD.
- Providing Information Assurance input on RDS acquisition documents, such as IA Strategy, PPP, and LCMP.

Common CBRN Sensor Interface (CCSI)

- Hosted a technical working group with JPM CA, JPM IS, JPM RND and DTRA in order to ensure consistent implementation.
- Host Configuration Change Board to manage change requests to the specification.
- Performing a functional gap analysis of CCSI and NATO STANAG 4586 to determine CCSI utilization as a NATO Standard for a common sensor integration standard.

JUPITR ATD

- Providing architecture products for BSP.
- Providing Information Assurance support to BSP in their pursuit of accreditation.

JPM IS Summary

- Executing a robust approach to deliver revolutionary advances in information systems capability through identification, development and reuse of common open architectures, standards and frameworks
- Promoting development of modular, plug-and-play systems thereby reducing development, integration, testing, training, and operations support costs
- Continued development and refinement of the “IT” Box/Agile acquisition concept for software development
- Refinement and implementation of revised Operational Test Strategy for Information Systems
- Continued work with JSTO through translational team to ensure S&T alignment and transition of technology at proper time and format

BLUF: Programs on Track With Significant Focus on the Biosurveillance Portal

The BEST Technology and Equipment
At the RIGHT PLACE
At the RIGHT TIME
At the RIGHT COST

Mr. Gary Wright
Chief, Contracting Operations Division
Joint Program Executive Office for
Chemical and Biological Defense
(410) 436-5663
gary.wright4.civ@mail.mil

Find this briefing at:
http://www.jpeocbd.osd.mil/Packs/Default.aspx?pg=410