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Chemical Biological Defense Acquisition Initiatives Forum (CBDAIF)

May 22, 2007

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AGENDA

- **Report**

 - New Army Contracting Command**

 - DAU Speakers Point of Contact**

 - Army Research Laboratory Materials Database**

- **Continue Discussion of Acquisition Issues**

 - Summary of January Quality Discussion**

 - Roundtable Discussion**

- **Overview of the Common CBRN Sensor Interface**



Army Contracting Command (ACC)

- **Activated March 14th, 2008 at Ft. Belvoir, Virginia**
- **Executive Director Mr. Jeffrey Parsons**
- **Subordinate Command of Army Materiel Command**
- **5,800 Personnel and Will Add 1000+ Military KOs**
- **Oversees Over \$85B in Contracts Annually**
- **Emphasis on Efficiency and Accountability**
- **The ACC will Oversee Both the Installation Contracting Command and the Expeditionary Contracting Command**

The ACC is Part of the Army Contracting Campaign Plan that Addresses Recommendations from the Gansler Commission and the Army Contracting Task Force



Knowledge Sharing Through the Defense Acquisition University

- CBDAIF Representatives and Sector Companies are Encouraged to Speak with DAU Students
- Provide your statement of interest along with a one-page biography to Larry Wakefield

ICAF Opportunities

DAU Opportunities

- DAU Maintains an On-Line Community for Knowledge Sharing at:



<https://acc.dau.mil/CommunityBrowser.aspx?view=w>

The ACC is a Good Forum for Discussion and a Source of Current Information on Acquisition Special Interest Topics



Common CBRN Sensor Interface (CCSI)

May 22, 2008

Chemical and Biological Defense Acquisition Initiatives Forum

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Purpose

- **Describe the JPEO CBD Common CBRN Sensor Interface (CCSI) Initiative**
 - What it is
 - Where its going
 - Impact on Industry partners



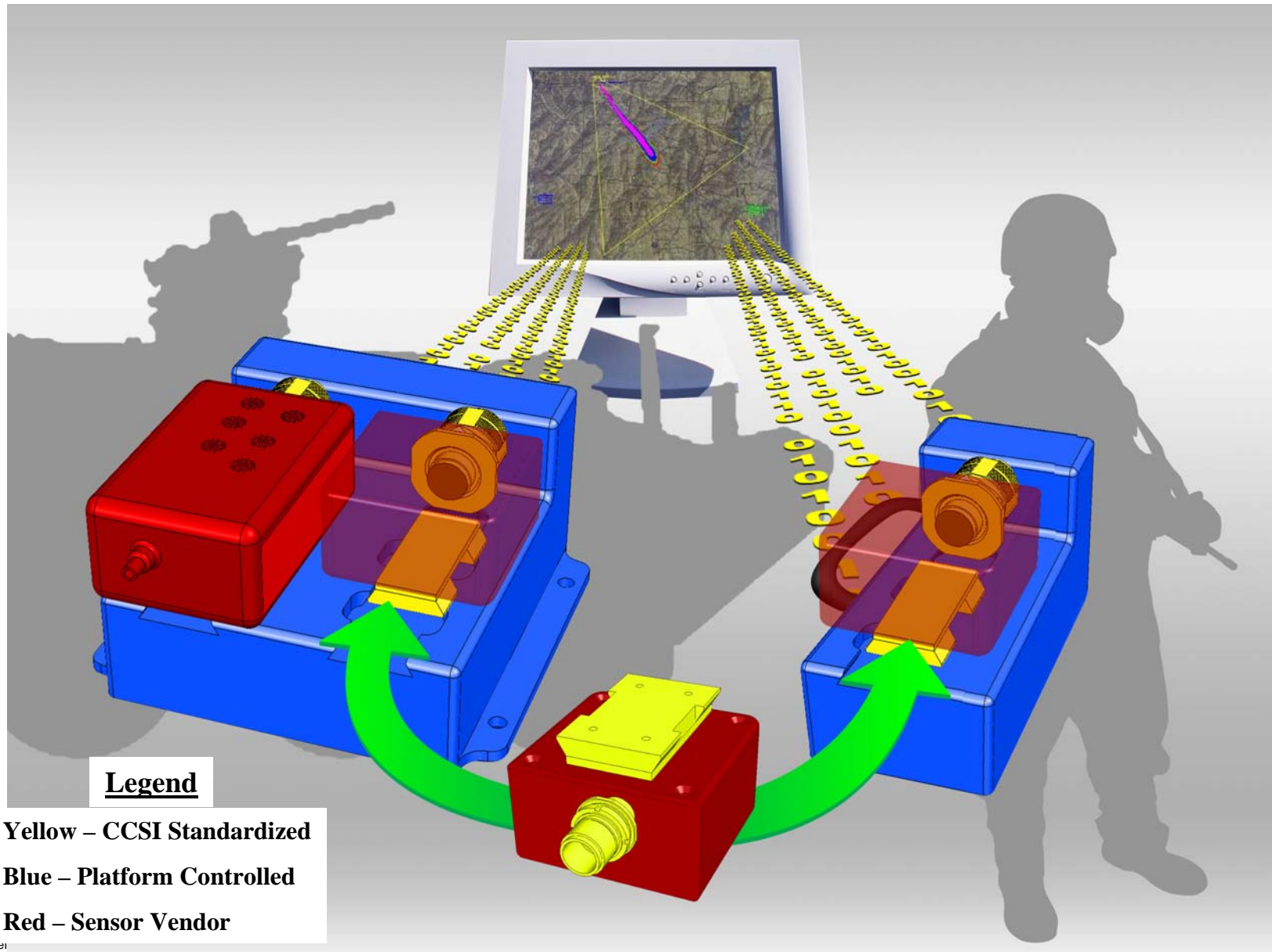
What is CCSI

- **A set of standards for CBRN Sensors**
 - **Volume I – Summary and Architecture**
 - **Contains goals, concepts, sensor characteristics**
 - **States and Modes, DoDAF Architecture Products**
 - **Sensor Development and Certification Process**
 - **Volume II – Physical Interface Standards**
 - **Sensor specifics separated by size**
 - **Small/Personal Sensor requirements**
 - **Large Sensor requirement**
 - **Volume III – Software Interface Standards**
 - **Performance requirements**
 - **Application Layer Protocol**
 - **XML Schema Definitions**
 - **Application Program Interface (API)**
 - **CCSI Compliance Test Tools**
 - **Sensor Schema Validation**
 - **Communications Validation**

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What is CCSI



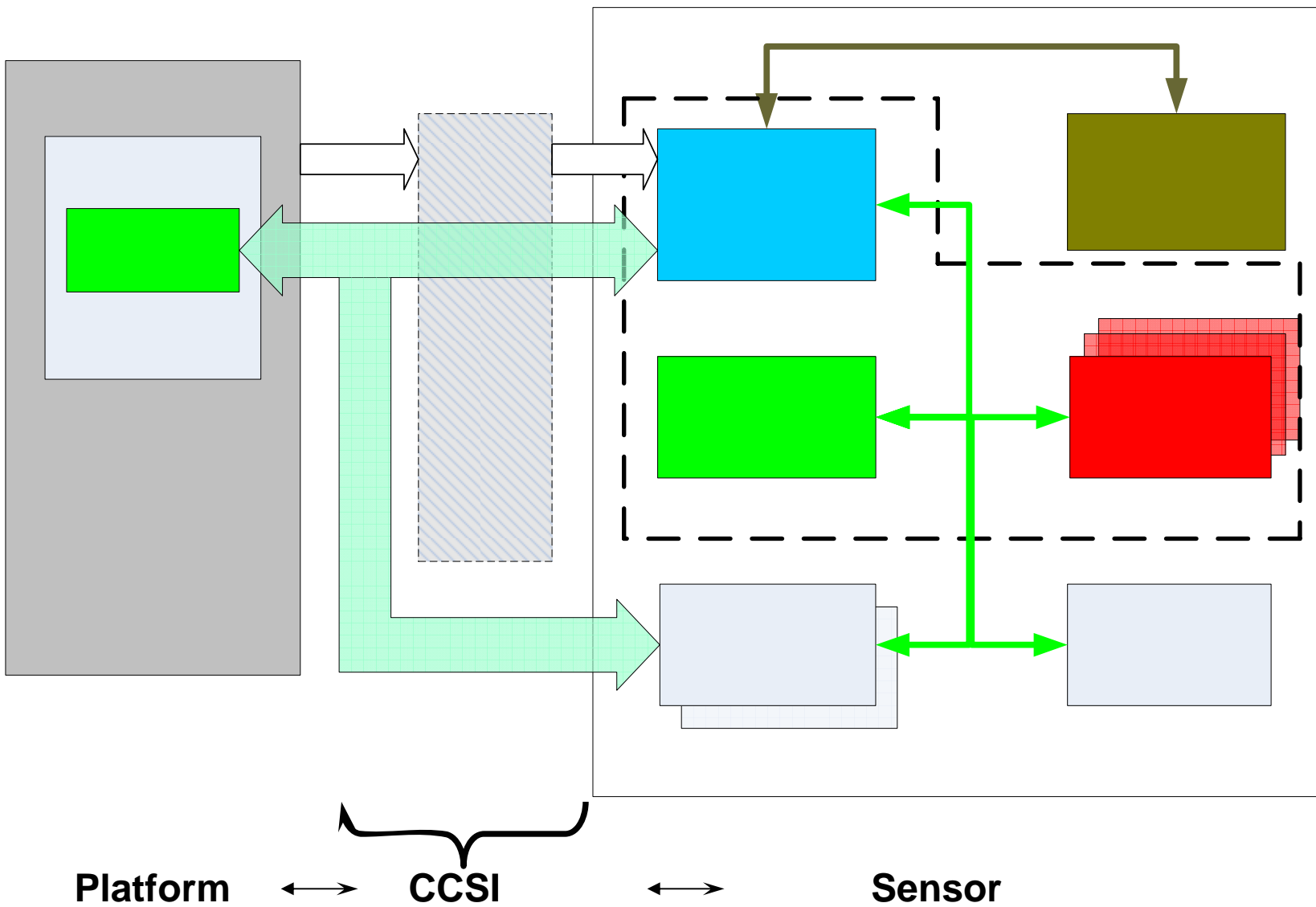


Goals

- **Realize MG Reeves' concept of modular sensing capabilities with standardized interfaces**
 - “Smart” Sensors
 - “Plug-n-Play” Sensors
 - “Net-Centric” Sensors
- **Initiated after the Joint CBRN Dismounted Reconnaissance System (JCDRS) Program Phase III Limited Objective Experiment to provide:**
 - Common sensor performance requirements
 - Required and recommended standards
 - Ease CBRN Data Model compliance for sensors
 - A standard that evolves with technology & experience



CCSI Hardware





CCSI Software

- **Sensors are defined by vendors using a standard XML Schema**
 - Common elements, commands, structures
 - Sensor unique elements, commands, structures
- **Single communications method using a standard XML Schema**
 - Used on all communication transports
 - Messaging details include common and sensor unique items
- **Sensor XML and CCSI schemas maintained in repositories**
- **Default operation for sensors is “by exception”**
 - Application programs register for periodic or event based reports
 - Application programs can retrieve data on command
- **Software functionality is modular and able to be upgraded by Using Unit**

A host application can identify and communicate with any CCSI sensor using common commands and reports.



Where We Are Now

- **CCSI Published – 15 Feb 2008**
 - Posted on the JPEO-CBD public web site (<http://www.jpeocbd.osd.mil>)
 - Being incorporated in the CBRN Sensor Suite for the Army Future Combat Systems (FCS) Program
 - Being incorporated in the Navy DDG-1000 CBRN Sensor Suite
 - Will be used in the Tactical Wheeled Vehicle Survivability Army Technology Objective (TWVS ATO) – Integrated Survivability Demonstrator (ISD)
 - Will be used in the Joint Lightweight Tactical Vehicle (JLTV)
 - Part of the requirements for the Joint Nuclear Biological Chemical Reconnaissance System Increment 2 (JNBCRS2)



What Are The Next Steps

- **Validate & Refine**

- **Confirm the design strength, usability, manufacturability and test the interfaces for range of defense mission environments**
- **Develop a sensor software reference implementation in the “C” language to provide as a compliant sensor example to vendors and validate the Application Program Interface**
- **Develop connector and mount technical data packages**
- **Develop reference cradle technical data package**
- **Leverage current FCS design and testing efforts**
 - **Cradle design and MIL-STD testing**
 - **Sensor repackaging**
 - **CCSI sensor emulator (JCAD, Radiac, JSLSCAD)**



What Are The Next Steps

- **Develop lifecycle management plan**
 - **JPEO-CBD sponsored CCSI Working Group**
 - **Examine merits of CCSI as an Industry Standard**
 - **Working with the Sensor Standards Harmonization Working Group to examine integration with the Open Geospatial Consortium (OGC) standards**
 - **Working with IEEE Instrumentation and Measurement Society TC-9 to examine integration with/use of 1451.x**



The Result





Questions?

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Discussion



Discussion of Acquisition Issues & Comments (Non-Attribution)

- Overall Product Quality (Discussed Jan Mtg)
- Quality of Low Rate Initial Production (Discussed Jan Mtg)
- **Defense Contract Management Agency Role**
- **Contracts**
- **Statements of Work**
- **Independent Research and Development Efforts in the CBD Sector**



Defense Contract Management Agency Role

- **How do you (Joint Product Offices and Industry) View the Role of DCMA?**
- **Is DCMA Management a Benefit, Detriment or Just “There”?**
- **How Might DCMA Provide More Value to both Industry and the JPOs.**



Contracts

- **Are Contracts the Right Size and Type for Competition?**
- **Are Contract Awards Fair?**
- **Are Contracts Administered Effectively?**
- **Do Contracts Protect Both the Company and Government?**
- **What Might Improve the Contracting Process?**



Statements of Work

- **Are Statements of Work Clear and Specific?**
- **Are there Inconsistencies?**
- **What Improvements Could be Included in Statements of Work?**



CBD Market Size and IR&D

- **Does the Size of the Chemical Biological Defense Market Enable industry to Maintain a Robust Independent Research and Development (IR&D) Capability?**
- **How Does Government S&T Investment Compare to Industry IR&D?**
- **Informal Comments so far Indicate:**

The United States may Constitute Half the World CBD Market

Large Companies Reinvest ~7-9% of Sales in IR&D