ASD NII / DOD CIO | USD(I) RFO | USA TRADOC

Multi Agency Collaboration Environment

August 2010

- Emerged from JIEDDOs Counter IED Operations Integration Center Net Centric Initiatives
  - Deployed the first interoperable, data sharing federation in the DoD, facilitating data discovery, across Service and Agency boundaries to defeat the IED threat

Focus on Defeating IED Networks

- A need emerged to enable the broader DOD and Federal Community to achieve the same interoperability and net centric success

We need the right information to do our jobs…

…but we do not have a way to easily share and discover information across Service and Agency boundaries; this prevents us from becoming predictive!

The Problem

MACE
MULTI AGENCY
COLLABORATION
ENVIRONMENT

Information is stored...

Here
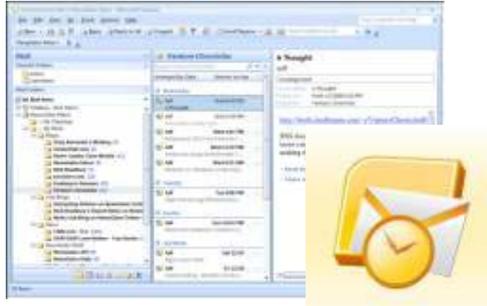
Here

Here

Here

Here

Here

Here

The Problem

And not available to...

…Preventing you from "Connecting the Dots"…

MACE
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COLLABORATION
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To address this critical problem ASD NII established the MACE

- Mission
  - Protect the Nation by leveraging the power of information to achieve cross Agency interoperability, collaboration and shared awareness

- Goals
  - Achieve greater levels of situational awareness and enable more accurate and timely decision making across the DoD and Federal Agencies

  - Accelerate the interoperability, policy and security advancements needed to meet the future security and integration challenges that the US will encounter in the coming years

MULTI-AGENCY COLLABORATION ENVIRONMENT (MACE) DESIGNATION

The Multi-Agency Collaboration Environment (MACE) effort has been initiated by the Assistant Secretary of Defense (Networks and Information Integration)/Department of Defense Chief Information Officer (ASD(NII)/DoD CIO), with the assistance of the OSD Special Capabilities Office (SCO), as a capability to enable organizations to adapt their technology, data, and processes to meet their current mission challenges. The MACE provides a rapid application development "proving ground" staffed by experienced personnel who use proven processes to design, engineer, test and certify solutions that are compliant with Federal and DoD information enterprise architecture policy and guidance.

An objective of the MACE pilot is to implement a data sharing and collaboration framework that serves the DoD and other Federal Agencies. To that end, participating organizations will make available their government-developed, certified and accredited tools and applications to the MACE, and the MACE will, as requested, tailor and modify those tools and applications to support specific customer needs. The MACE will be reimbursed by participating customers as part of their planned execution for the program(s) of record. Individual efforts will be executed under approved and agreed upon signed Memorandum(s) of Agreement (MOA) between the MACE and the sponsoring government agencies. Each contractual engagement between the MACE and its sponsoring agencies will remain "separate and severable". Formal cost, schedule, and performance reviews will be conducted on a bi-annual basis by the undersigned.

Oversight for all MACE activities will be provided by the Director, Enterprise Services and Integration, OASD(NII)/DoD CIO. The OSD Special Capabilities Office (SCO) will support financial tracking and oversight for all funding actions and monitor progress of execution.
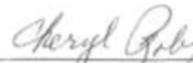
Ms. Cheryl Roby   Date   3/10/10
PD ASD/NII
DoD Chief Information Officer
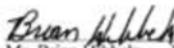
Mr. Brian Hibbeln   Date   3 MAR 2010
OSD SCO

Breaking Down the Barriers

...So that information can be shared and updated by...

Agents

Operators

Analysts

...from across the DoD and Homeland Defense Stakeholder Community

e CLOUD

Shared Applications / Shared Data

*Security / Authorization / Authentication*

eCLOUD | Knowledge Enterprise

Transforming stove-piped data and application services into a shared knowledge enterprise based on blended DOD, DHS and DOJ data standards...

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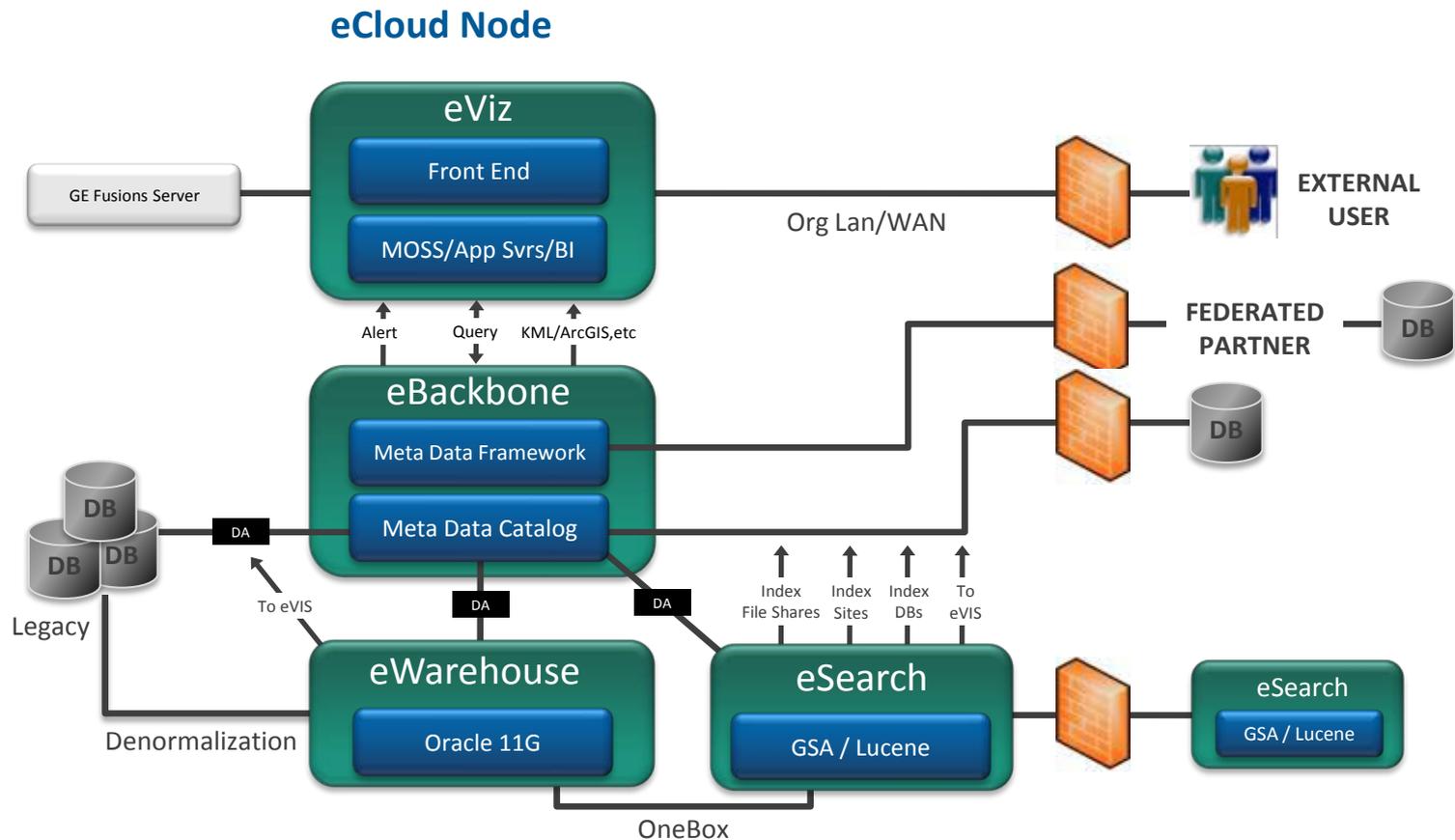
Any data set can be integrated...

Peta-Byte Class Data Centers
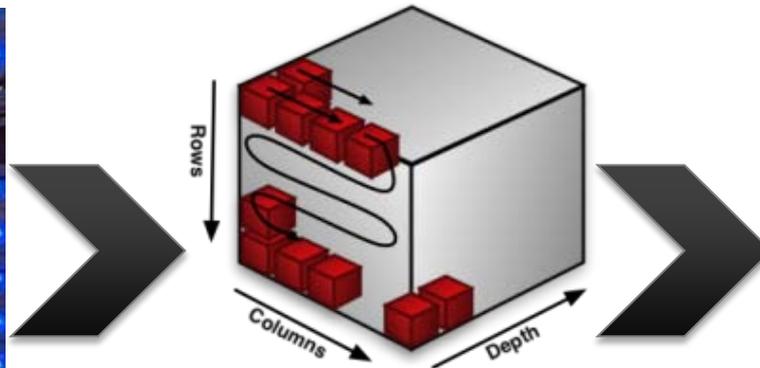
**Data Warehousing
Business Intelligence 2.0**

Analytics

...and access controlled to specific users, organizations or communities of interest....

MACE
Integrating Partners

MACE
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DHS Operations

DCGS Management Office (DMO

DHS Critical Infrastructure Protection (CIP)

United States Air Force (ESC)

Customs and Border Protection (CBP)

DIA

Alcohol, Tobacco, and Firearms

USSOCOM

Joint Interagency Task Force – South

US NAVY

ASD NII / DOD CIO

US ARMY

Emerging Partners

NORTHCOM / CENTCOM / NGA / EPIC / CN COI / White House / NMCC

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ENVIRONMENT

Customize Your User Experience:
Gadget Based Browsers

Knowledge Driven Operations

Workflow Automation

Query: Type, Time, Spatial, Complex

User Customized Automated Metrics Reporting

Predictive Enterprise Analytics
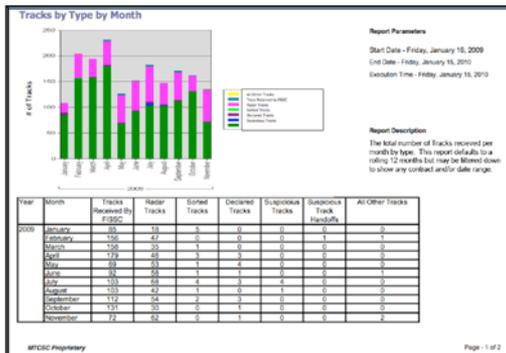
Automatic Enterprise Entity Extraction and Association

Multi-Agency Collaboration Environment

The committee is aware that the office of the Assistant Secretary of Defense for Networks and Information Integration sponsored a program intended to break down interagency information stovepipes and promote greater information sharing among the Department of Defense and its partners. The Multi-Agency Collaboration Environment (MACE) is an innovative effort to address many of the information sharing problems identified by the 9/11 Commission which continue to plague the U.S. Government. MACE provides a unique proving ground for federated information sharing architectures and techniques. Equally important, the contracting paradigm for MACE is a radical departure for the Department, and offers a potential future standard that leverages Darwinian principles in support of information systems program management. The committee plans to closely monitor the progress of MACE, and encourages the Department to make greater use of this capability.

Information is the critical enabler in today's fight

eCLOUD | Knowledge Enterprise Cloud

...On multiple security domains to expand enterprise federations
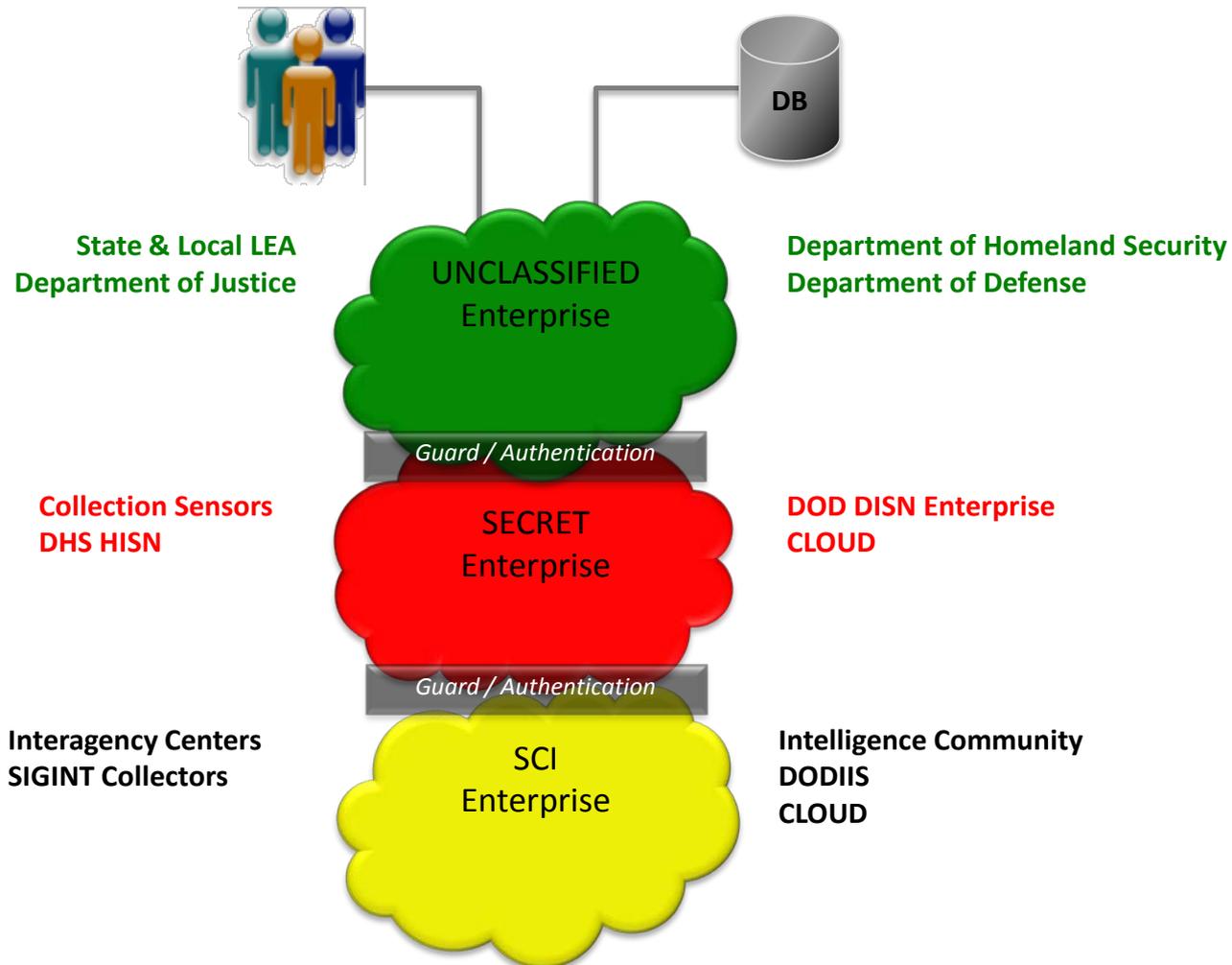
MACE Enables

...transforming information into action

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Multi-Agency Collaboration Environment MACE

DCGS Integration Backbone (DIB)

MACE Provides the DCGS Integration Backbone for the DMO and the Services

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THE PROBLEM

Accessing and using data from disparate data sources wastes a significant amount of time that could be spent on analysis and fusion.

THE SOLUTION

The DIB provides a common interface that exposes data and allows analysts to retrieve information with a single query. The DIB uses a hub and spoke methodology for sharing data within a Community of Interest.

IMINT

Predator

MASINT
SIGINT

SIGACTS
TACREPs
Exploitation Assets

DIB

Federate

DIB   Other Federated Partners   DIB

DIB

Federate

Predator

HUMINT

SIGACTS
TACREPs
Exploitation Assets

DIB   AF DCGS   DIB

DIB

DIB

DIB   DCGS-A   DIB

DIB
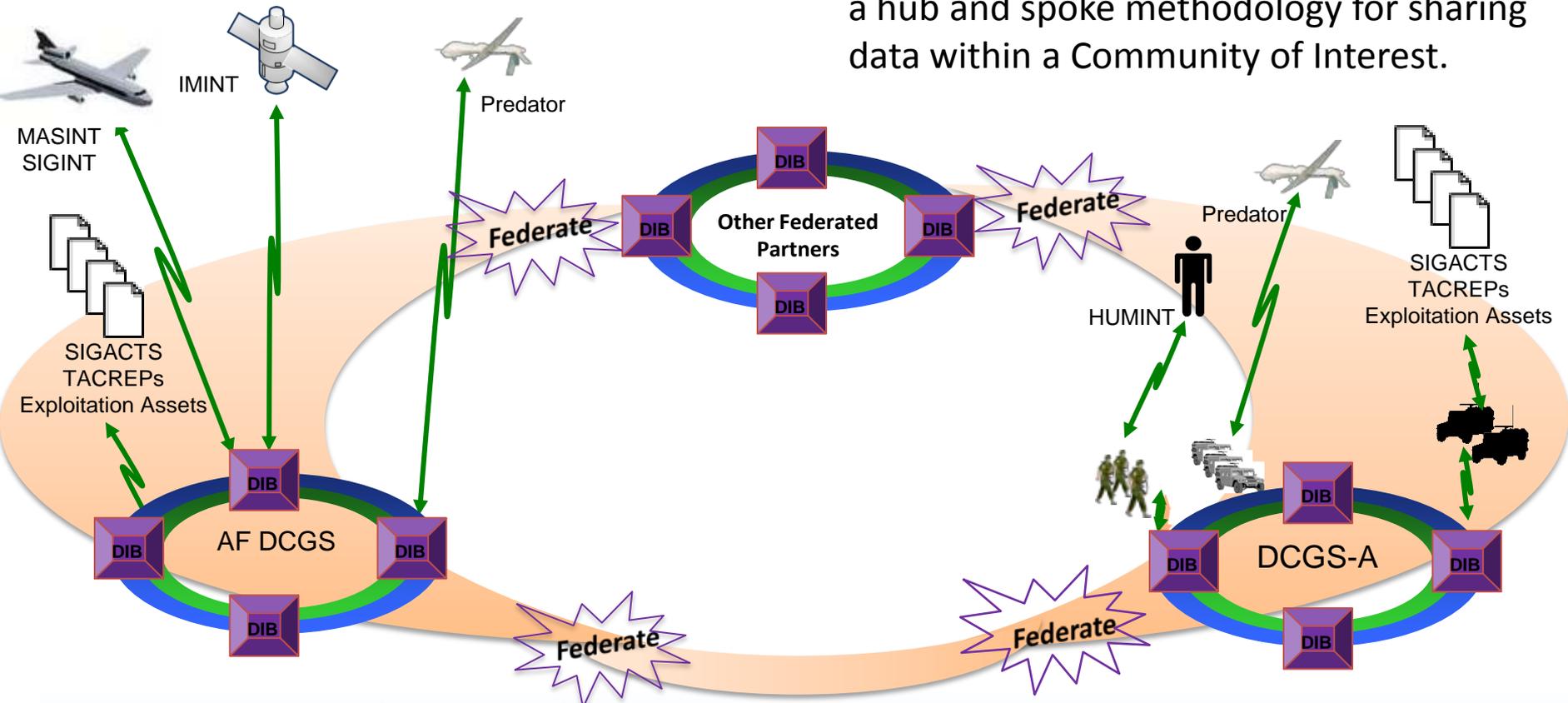
Federate

Federate

DIB-based federation facilitates seamless, direct sharing and coordination of ISR and operations across organizational domains

DIB Development Overview

	DIB v1.2	DIB v1.3	DIB v1.3.1	DIB v2.0	DIB 3.0
Date Released by MET CCB (DMO shipped)	Dec 07	Apr 09	Sep 09	Oct 10	May 11 (Projected)
Developed by	Raytheon	Raytheon	MACE	MACE	MACE
Industry Partners	1 (full time): Raytheon 2 (interim): Lockheed Martin, Oracle	1 (full time): Raytheon 2 (interim): Lockheed Martin, Oracle	4 (full time): Lockheed Martin, Oracle, SNC, MTCSC	5 (full time): Lockheed Martin, Oracle, IBM, SNC, MTCSC	4 (full time): Lockheed Martin, SNC, MTCSC, NG (adding)
Government Insight into Development	Limited	Limited	High	High	High
PoR Requirements Change Flexibility	Low	Low	High	High	High

Legacy Contractor Effort   **MACE Selection**

Proposed 13.6 M for 2.0   MACE Accomplished 2.0 delivery at 5 M

MACE Effort

DIB Key Feature Summary

Feature	V1.2	V1.3	V1.3 .1	V2.0
Catalog Record Storage Format	DCGS Internal	DoD Standard	DoD Standard	DoD Standard
Multi-Catalog Search	Manual	Auto	Auto	Auto
System Integrator Documentation	Minimal	Extensive	Extensive	Extensive
Catalog Query & Result Formats	2	5	5	8
Customizable Catalog	No	Yes	Yes	Yes
Catalog Performance Characterization	No	No	Yes	Yes
Support for non-Western Characters	No	No	Yes	Yes
Support for Schema Versioning	No	No	No	Yes
Case Sensitive Query Capability	No	No	No	Yes
Security Requirements	PL2	PL2	PL2	PL3*
Programming Software	Java 1.4	Java 1.5	Java 1.5	Java 1.6
Integration Platform	WebLogic 8.1	WebLogic 10.2 JBoss 4.2.2	WebLogic 10.2 JBoss 4.2.2	WebLogic 10.3 JBoss 5.1
Operating Systems	Solaris 10 RH Linux 4.5 Windows 2003 32 bit	Solaris 10 RH Linux 4.5 Windows 2003 32 bit	Solaris 10 RH Linux 4.5 Windows 2003 32 bit	Solaris 10 RH Linux 5.4 Windows 2008 64 bit
Database	Oracle 10G	Oracle 10G	Oracle 10G	Oracle 11G

*DIB v2.0 will include PL3 functionality; product type certification documentation and effort planned for DIB v2.1