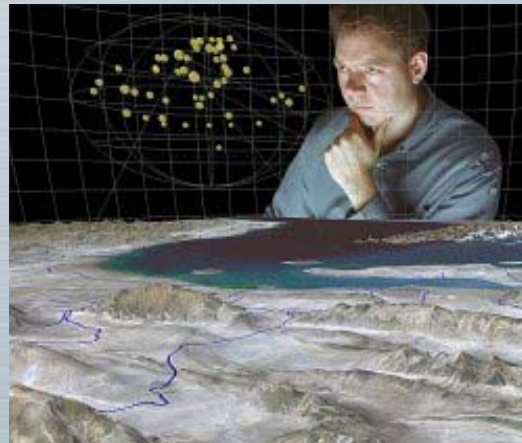




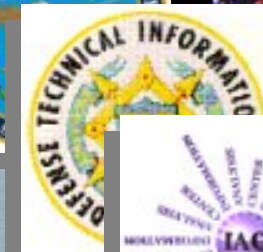
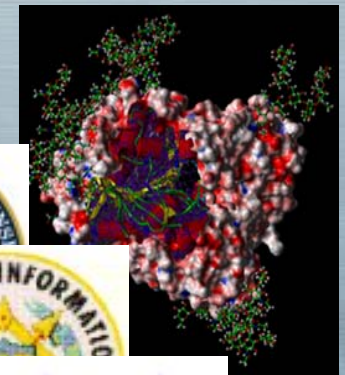
# The Chemical and Biological Defense Information Analysis Center (CBIAC), a Knowledge Management Source for Authoritative Information



*Donald McGonigle KM Program Manager  
October 2005*

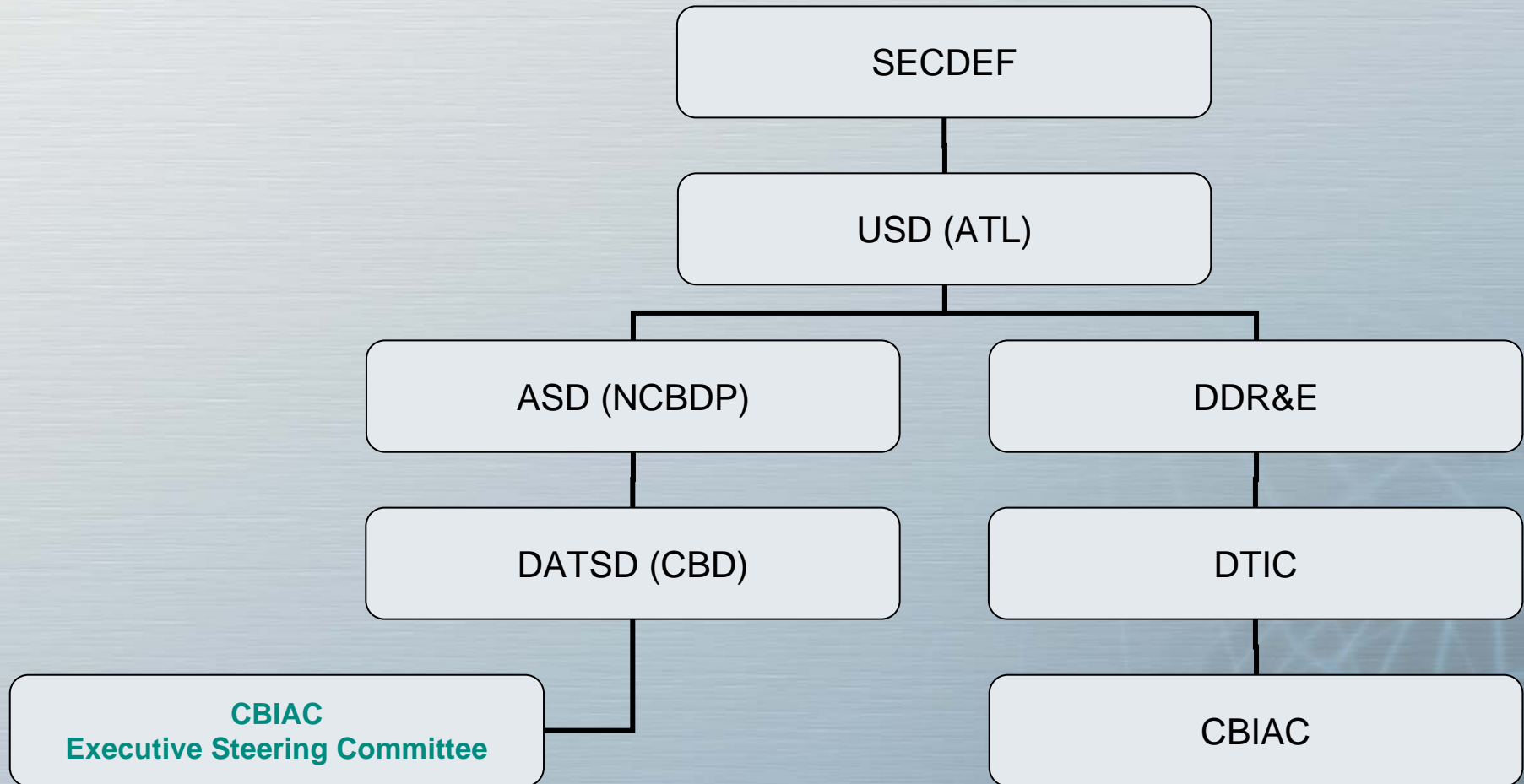
# CBIAC Overview

- Chartered by DoD to generate, collect, analyze and disseminate scientific and technical information to Gov't and their contractors
- Provides comprehensive databases, technical analysis, and analytical tools and techniques in the CBRNE domain
- Inquiries (Free)
- CBIAC Website  
<http://www.cbiac.apgea.army.mil>
- Contractor operated; administered by Defense Technical Information Center (DTIC)



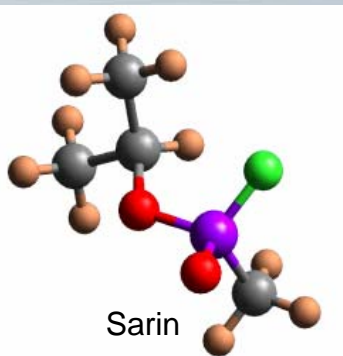
# CBIAC Relationships

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# Technical Scope

- **Chemical and Physical Properties of CW/CBD Materials**
- **Toxicology**
- **Warning and Identification**
- **Medical Effects and Treatment**
- **Treaty Verification**
- **International Technology, Proliferation and Control**
- **Individual and Collective Protection**
- **Chemical Identification**
- **Environmental Fate and Effects**
- **Decontamination**
- **NBC Survivability**
- **Combat Effectiveness**
- **Smoke and Obscurants**
- **Demilitarization**
- **Analysis of Manufacturing Processes for NBC Systems**
- **Defense Conversion & Dual use Technology Transfer**
- **Domestic Preparedness / Homeland Security**
- **Force Protection**
- **Counterterrorism**
- **Counterproliferation**
- **Toxic Industrial Chemicals/Materials (TICs/TIMs)**



# Core Program Services and Products

- **Inquiries (Free)**

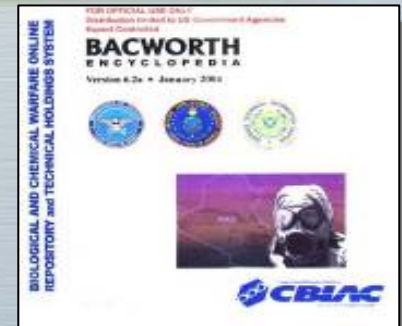
- Gateway to CBIAC expert reach-back
- Informational, Technical, Bibliographic
- Referrals

- **CBIAC Website** <http://www.cbiac.apgea.army.mil>

- Access to Bibliographic Database (85,000 documents/128,000 citations)
- Access to Inquiries, Products, Newsletters, etc.
- Newsletters/Brochures

- **Products (examples)**

- Criminal and Epidemiological Handbook
- Sensing of CB Agents
- Medical Biological Risk Assessment
- CB Terminology Handbook
- Susceptibility of Aerospace Materials to CW Agents



# Security

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- **DSS Inspection: 3 Consecutive Superior Ratings**
- **CI Support Recognized**
- **Collateral Open Shelf Storage**
- **Self Certification for selected AIS**
- **SIPRnet Accreditation**
- **TS Closed Storage**

# Application Management and Hosting Services

- **CBIAC Data Center**

- Partnership with Aberdeen Proving Ground, DTRA, JRO, and DTIC
- Physical Security
- Backup Power/PDU
- NIPRnet, SIPRnet
- Multiple Carriers to Internet Backbone

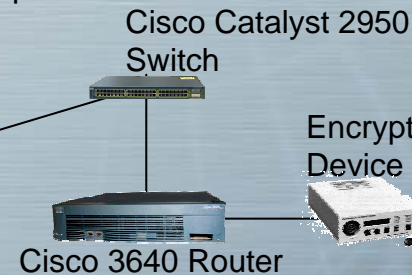


**Host**

Sun Ultra Sparc Enterprise 450



Cisco Pix 501 Firewall



Encryption Device

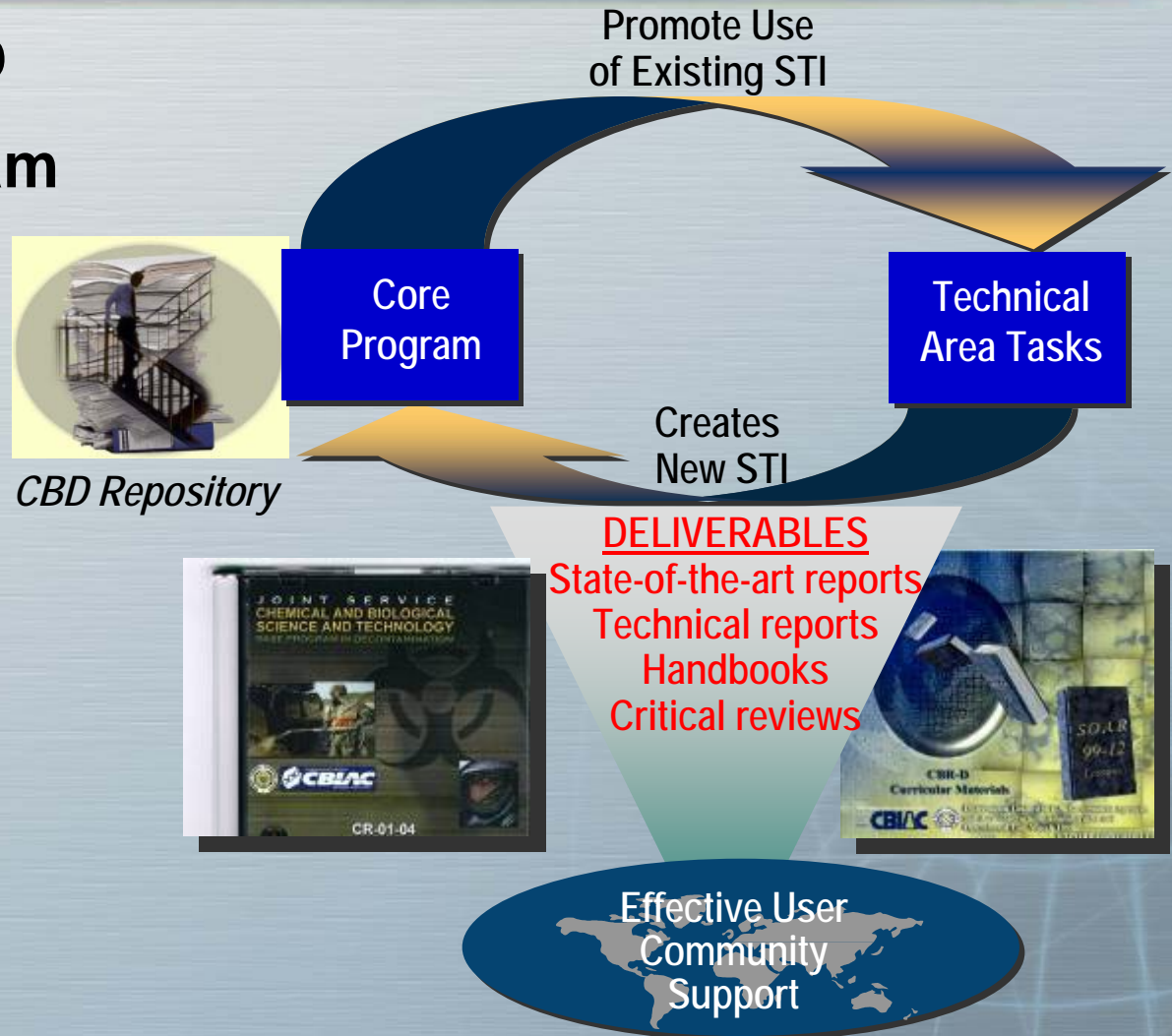
SIPRNet

- **Off-site Backup**

- Dugway Proving Ground
- Commercial Facility

# Technical Area Task (TAT) Program

- Utilize existing CBD Repository to support TAT program
- Create new Authoritative information to meet immediate user needs
- Ensure TAT deliverables incorporated into CBIAC CBD repository
- Leverage TAT data to support broader user needs/ applications





# CBIAC TATs – Customer Focus

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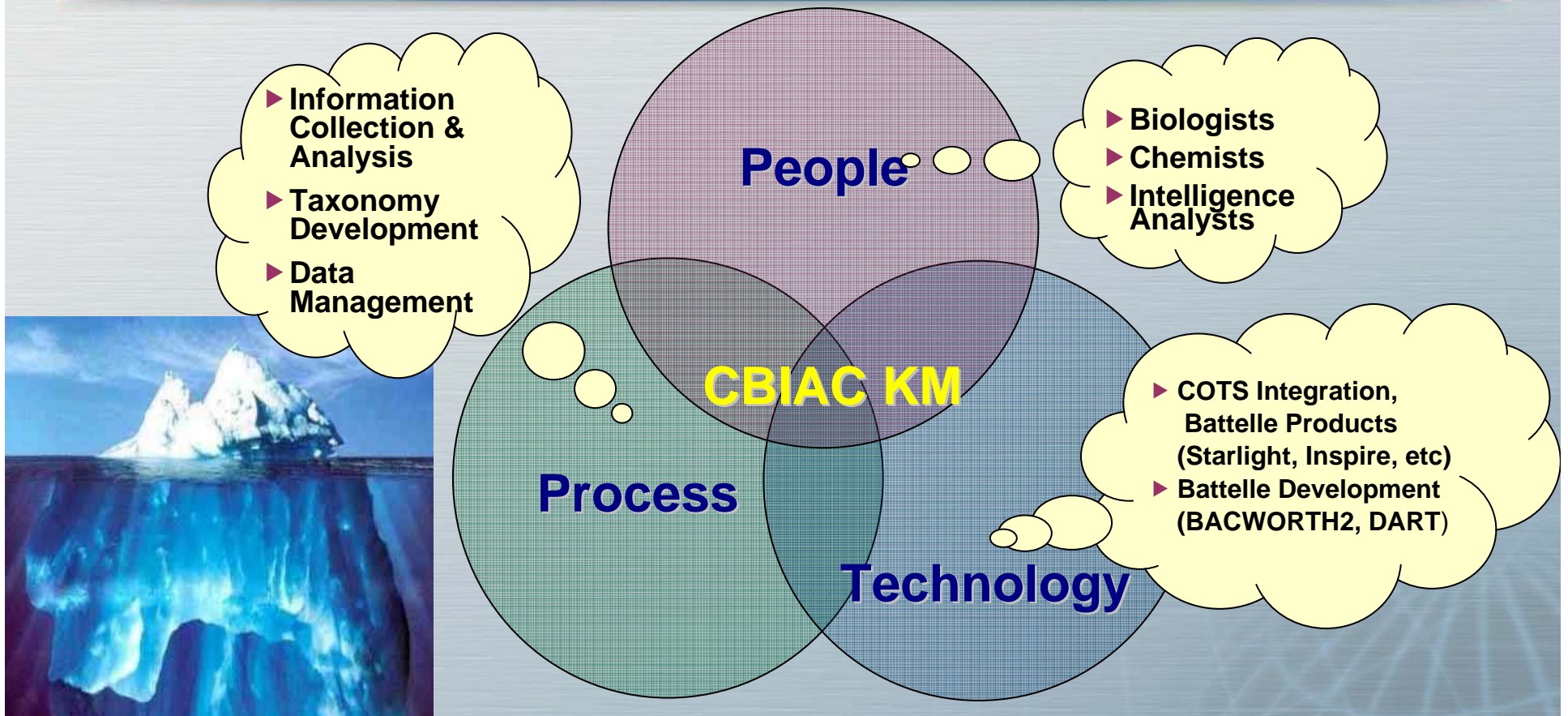
- **Client controlled incremental funding**
- **Cost Plus Fixed Fee (you are only charged for work performed)**
- **Flexibility to change focus (within scope)**
  - Award provides a “menu” of relevant sub tasks
  - Broad Technical Scope
- **Work can be performed without Fiscal Year limitations**
- **Client provides on going direction and focus**
- **Can accept any “color” dollars**
- **Can accept dollars from multiple funding sources**

# Knowledge Management

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- **Provide science-based subject matter expertise to communicate, analyze, and distribute critical information assembled from multiple sources:**
  - Secure digital communications
  - Expert content development and distribution
  - Information visualization and discovery
  - Data acquisition and processing (animal tracking)
  - Epidemiologic mapping GIS/GPS
  - Database repository systems

# CBIAC Knowledge Management Elements



Decision making requires information that is

- Authoritative
- High quality
- Relevant

# KM Problem Areas/Client Challenges

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- ***Need to improve data quality*** to support and manage performance and enforcement of safety, project, and fiscal management business areas
- ***Share and collaborate*** amongst and between organizations
- ***Large volumes of distributed data*** in various formats and states

Age old problems that exist in many government agencies...

... some driven by legacy applications and technologies...

... others driven by culture differences or leadership

# Data and Taxonomy Problem Space

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- **Two general data types**

- Structured: generally numeric or E-R based

- Unstructured: text based

- Structured data is:

- Easily machine readable

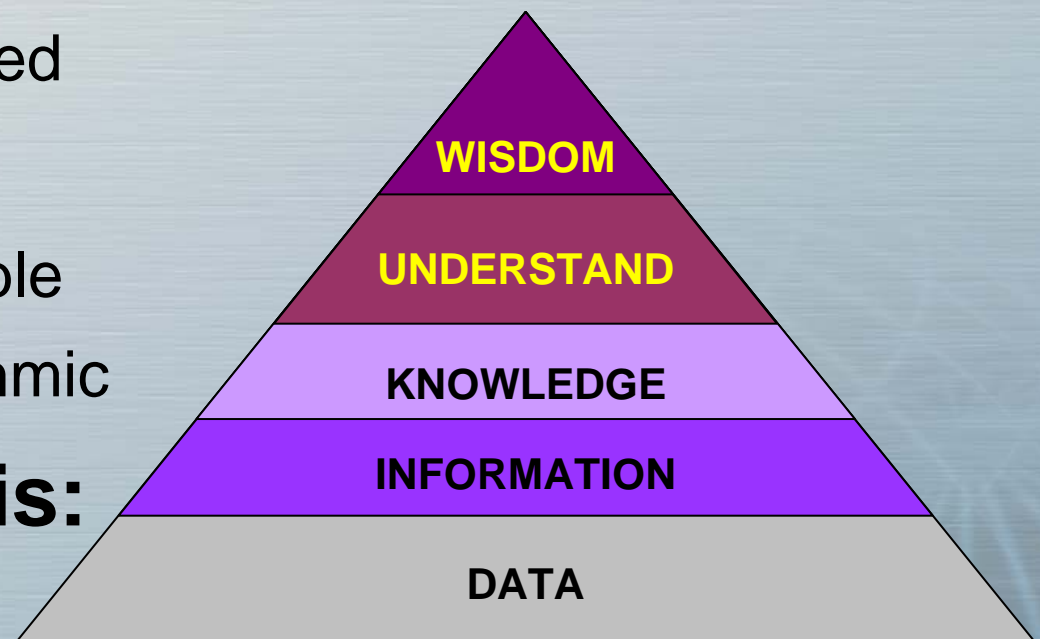
- Countable and algorithmic

- **Unstructured data is:**

- Human readable

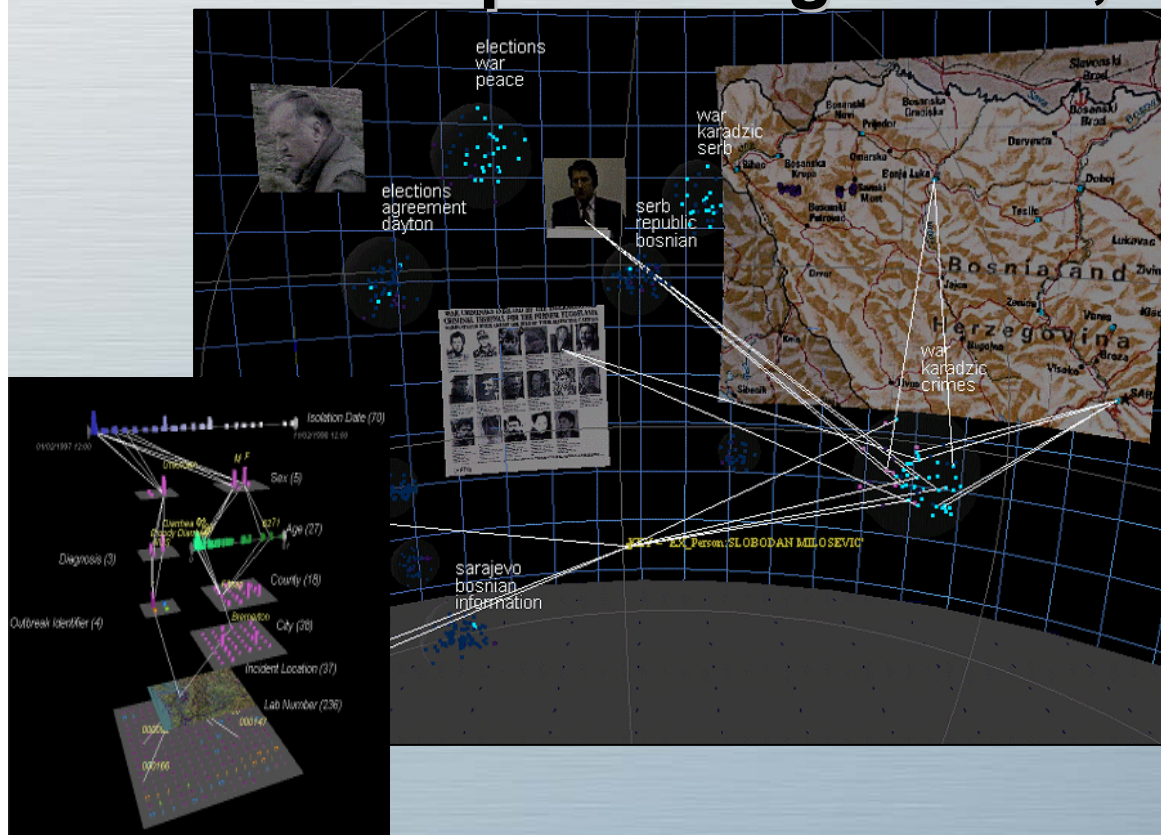
- Contextual and semantic

- **Large volumes / quantities of data**



# Starlight Information Visualization System

Organizes, characterizes, and integrates a variety of structured and unstructured information types, for analysis to find patterns and to identify relationships among events, actors and locations.



## Key Features/Benefits:

- Advanced information model
- Text information extraction
- Integrated GIS
- XML-based
- Information Integration
- Holistic Analysis
- Accelerated Interpretation
- Improved Understanding

# Disaster Management Interoperability- Services

- **Primary Mission:**
  - Facilitate digital information sharing (interoperability) among the consequence mgt domains for all hazards
- **Secondary Mission:**
  - Provide basic tools at no cost for organizations that choose to use them

[www.dmi-services.org](http://www.dmi-services.org)



The screenshot displays the DMI Services software interface. The main window shows a map of a region with various hazard symbols overlaid, including a biohazard symbol, a radiation symbol, and several 'H' symbols. A sidebar on the left lists categories: Police/Fire, Hazard, Incident, Medical, and Symbols. A 'DMI Services Help' window is open in the foreground, displaying the following text:

**Welcome to DMI Services**

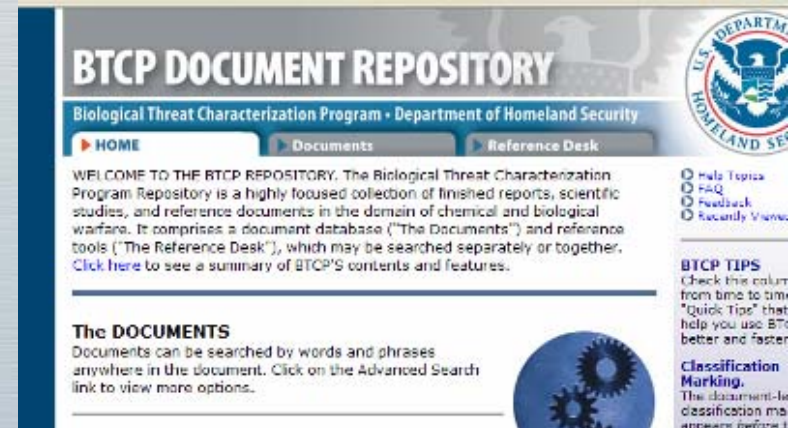
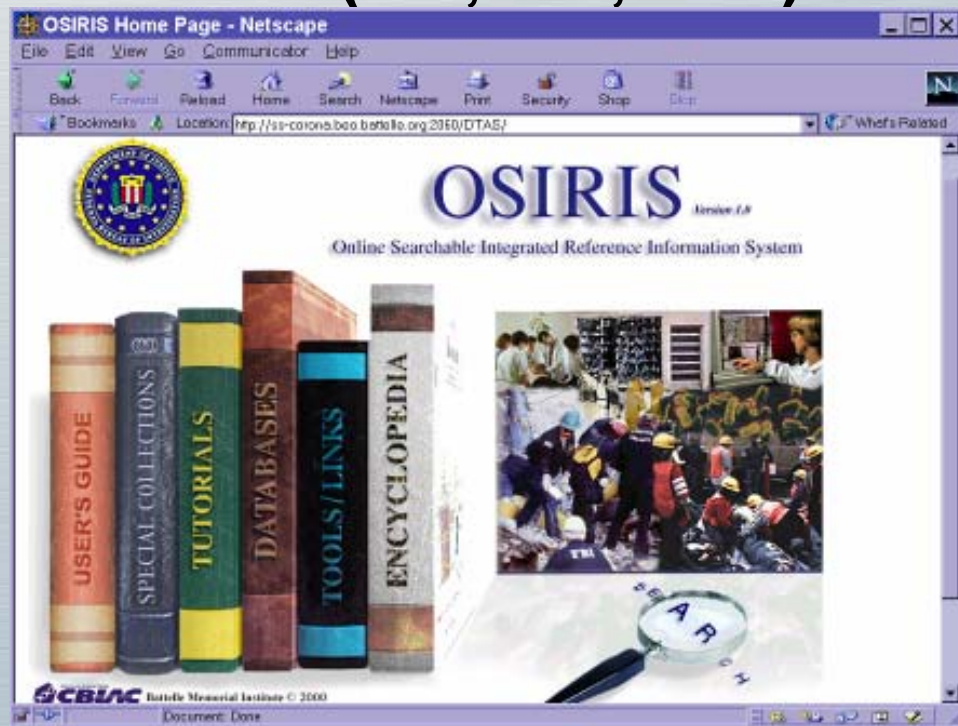


Disaster Management Interoperability Services (DMI-Services) is a Congressionally sponsored and funded project primarily focused on assisting individuals and organizations with crisis and consequence management responsibilities for the results of weapons of mass destruction and disasters and mitigation of all hazards.

Providing a portal for the rapid and secure exchange of information between emergency management organizations, DMI-Services connectivity and functionality is also applicable to prevention, preparedness, response, and recovery at the local, state and federal levels. Only through day-to-day usage and proven utility will DMI-Services be of maximum benefit as a tool for preventing and responding to disasters. The primary mission of DMI-Services is to provide Interoperability services. **DMI-Services is a service, not an application.**

# OSIRIS-BACWORTH2-BTCP

CB Repository - CBD Doc Collections, Analyst tools, in-depth Agent Encyclopedia, Threat Characterizations leverages CBIAC for CB recipe sources (FBI, DIA, DHS)





# Agra Country Profile System

- **AGRA profiles foreign facilities and people linked to select animal diseases worldwide**
- **WIKI system supports collaborative input**

**AGRA**  
The Agricultural Resource Atlas

Sponsored by the U.S. Defense Intelligence Agency

This is dummy text introducing the AGRA project. This text should orient the user and give them some idea of the scope of the project and how they can get started using it. This is dummy text introducing the AGRA project. This text should orient the user and give them some idea of the scope of the project.

**USER TIPS**  
This column can be used

**1. QUICK SEARCH**  
To search, enter a keyword in the search box.

**2. BROWSE**  
to browse, click on one of the categories

**About AGRA**  
Use this unique interactive system to explore the world. This dummy text is here by following the above.

**Country Overviews**  
This section lists the countries and their information. This is dummy text. They click above.

**Key Diseases**  
This section lists all the diseases and their information. This is dummy text. They click above.

**People**  
This section lists all the people and their information. This is dummy text. They click above.

**Newcastle disease in Asia**

Legend:  
■ Disease Currently Present  
■ Disease Present Before 1990  
■ Disease Suspected  
■ Disease Not Present  
■ No Data

DATA SOURCE:  
Information displayed for Cambodia is hidden because of copyright issues.

# Summary

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- **CBIAC addresses CBD and HLS issues**
- **Core Program**
  - No Cost Inquiry Support
  - Comprehensive Databases
  - Newsletters
  - State-of-the-Art Products
  - Gateway to CBIAC reach-back
  - “One-Stop Shop” Website
- **Technical Area Tasks**
  - Responsive
  - Easy to Use
- **Knowledge Management Capabilities**
- **CBIAC Focuses on Customer Service**



**Your “One Stop Shop”  
for CBD/HLS Support**