CBRN Data Import/Export Tool (CDIET)

Presented by: Darius Munshi
Presentation Outline

• Introduction to CDIET
• Benefits provided to user
• Scope Statement
• Timeline for development and deliverables
• Core functionality provided to user
• Look and Feel
• Possible technologies that will be used
• What CDIET is NOT
• Risks and Risk mitigation
• Questions
Introduction to CDIET

• A two phase, a two year effort
• First release, CDIET Suite Version 2.0 to be delivered October 9, 2007

• Key Features
  – Platform independent solution
  – Multiple DB Access
    • Microsoft Access
    • SQL Server
    • Oracle
    • MySQL
  – Interface with JPM IS CBRN Data Model Schema
  – “Library” Design Allows Customizable Solution to Access the CBRN Data Model
  – Map Database with CBRN Data Model
    • Drag and Drop visual interface
    • Programmatically through a Java API
Benefits provided to user

• Allow CBRN Applications to be quickly and efficiently adapted for Net-centric, XML data sharing effort
  – Data shared is their own legacy data, in CBRN Data Model Compliant Format
  – Automates the formatting of legacy data

• Targeted Data Processing
  – Allows members of CBRN community to focus on specific areas of the CBRN Data Model that relates to their current project or needs
  – Provides Dynamic Structured Query language (SQL) statement creation with user specified criteria
    • Share relevant data
    • Provide for creation of XML Data Documents free of unnecessary data
      – Increased efficiency and speed of data sharing

• Easy to Use
  – Easy, drag-and-drop interface
  – Abstracted, encapsulated API methods and functions
Scope Statement

• CDIET will allow the Software Engineer to
  – Facilitate integration of an existing application with the CBRN toolset
  – Map legacy databases with the CBRN Data Model Schema
  – Import and export legacy data in CBRN Data Model compliant formats

• CDIET will provide
  – A visual, interactive stand alone Java application for the analyst community
  – A Java library for software engineers to use in their own applications to interface and work with the CBRN Data Model and their legacy database applications
Chemical Biological Defense Programs

Timeline for development and deliverables

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define Requirements</td>
<td>10 days</td>
<td>Mon 12/11/06</td>
<td>Fri 12/29/06</td>
</tr>
<tr>
<td>Complete Scope, time, expertise available &amp; RWP</td>
<td>0 days</td>
<td>Fri 12/22/06</td>
<td>Fri 12/22/06</td>
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<tr>
<td>Design CDET Java Library (CDET JL v.1.1)</td>
<td>10 days</td>
<td>Mon 1/1/07</td>
<td>Mon 1/15/07</td>
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<tr>
<td>Finalize design of CDET JL v.1.1</td>
<td>0 days</td>
<td>Mon 1/15/07</td>
<td>Mon 1/15/07</td>
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<tr>
<td>Design CDET User Interface (CDET UI v.1.1)</td>
<td>7 days</td>
<td>Tue 1/16/07</td>
<td>Wed 1/24/07</td>
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<tr>
<td>Finalize design of CDET UI v.1.1</td>
<td>0 days</td>
<td>Wed 1/24/07</td>
<td>Wed 1/24/07</td>
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<tr>
<td>Design CDET Database Security Tool (CDET DST v.1.1)</td>
<td>5 days</td>
<td>Thu 1/25/07</td>
<td>Thu 2/1/07</td>
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<tr>
<td>Finalize design of CDET DST v.1.1</td>
<td>0 days</td>
<td>Thu 2/1/07</td>
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<tr>
<td>Code and Implement CDET JL v.1.1</td>
<td>30 days</td>
<td>Fri 2/2/07</td>
<td>Thu 5/24/07</td>
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<tr>
<td>Complete CDET JL v.1.1</td>
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<tr>
<td>Code and Implement CDET UI v.1.1</td>
<td>48 days</td>
<td>Fri 5/25/07</td>
<td>Thu 7/31/07</td>
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<td>Thu 7/31/07</td>
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<tr>
<td>Code and Implement CDET DST v.1.1</td>
<td>48 days</td>
<td>Fri 5/25/07</td>
<td>Thu 7/31/07</td>
</tr>
<tr>
<td>Complete CDET DST v.1.1</td>
<td>0 days</td>
<td>Thu 7/31/07</td>
<td>Thu 7/31/07</td>
</tr>
<tr>
<td>CDET Suite v.1.1 Testing</td>
<td>30 days</td>
<td>Wed 8/1/07</td>
<td>Tue 8/11/07</td>
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<tr>
<td>Finish CDET Suite v.1.1 Testing</td>
<td>0 days</td>
<td>Tue 8/11/07</td>
<td>Tue 8/11/07</td>
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<tr>
<td>Documentation</td>
<td>30 days</td>
<td>Wed 8/11/07</td>
<td>Tue 9/11/07</td>
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<tr>
<td>Complete all user documentation</td>
<td>0 days</td>
<td>Thu 9/12/07</td>
<td>Thu 9/12/07</td>
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<tr>
<td>Product Delivery</td>
<td>13 days</td>
<td>Wed 9/12/07</td>
<td>Fri 9/28/07</td>
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<tr>
<td>Deliver CDET Suite v.1.1 CD-ROM</td>
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<td>Wed 9/28/07</td>
<td>Wed 9/28/07</td>
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<tr>
<td>Customer acceptance</td>
<td>0 days</td>
<td>Fri 9/28/07</td>
<td>Fri 9/28/07</td>
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• **Schedule Synopsis**
  - Complete Design and Architecture of all components  
    February 1, ‘07
  - Complete CDIET Java Library (CDIET JL v 2.0)  
    May 24, ‘07
  - Complete CDIET User Interface (CDIET UI v 2.0)  
    July 31, ‘07
  - Complete CDIET Database Security Tool (CDIET DST v 2.0)  
    July 31, ‘07
  - Deliver to Customer for Customer Acceptance Testing  
    September 12, ’07
  - Final Delivery, Project Closure  
    October 9, ’07

• **Follow-on, Second phase 2008**
  - Customer needs and requirements gathering  
    October ’07 – January ’08
  - Complete CDIET Suite 3.0 Scope, Design, and Architecture  
    March ’08
  - CDIET Suite 3.0 Development  
    March ’08- August ’08
  - Deliver to Customer for Customer Acceptance Testing  
    September ’08
  - Final Delivery, Project Closure  
    October ‘08
Core functionality provided to user

- **CDIET Component Suite v 2.0**
  - Gather information about user's database automatically
    - Field names
    - Table names
    - Constraints and data types
  - Gather information about the CBRN Data Model automatically
    - Element names and values
    - Embedded documentation
  - Support the following relational database systems
    - SQL Server
    - Microsoft Access
    - MySQL
    - Oracle
Core functionality provided to user

• CDIET Component Suite v 2.0
  – Provides functionality to
    • Map user’s database with CBRN Data Model with a user friendly GUI
    • Produce XML data documents in CBRN Data Model compliant formats
  – Provides database search capability of
    • Element names and embedded documentation in the CBRN XML schema
    • Field names and table names in the legacy databases
  – Provides all functionality through API and GUI
    • Programmatically for the software engineer
    • Graphical user interface for other users
Look and Feel

CDIET UI Component, Prototype Version
Possible technologies that will be used

• Native-protocol all-Java driver
  – Pure Java database interface built on Java Database Connectivity (JDBC) driver
  – Near universal access with legacy databases
  – Does not rely on platform dependant implementation, such as ODBC
  – High speed, high performance database access
Possible technologies that will be used

• Xerces2 Java Parser
  – Component of the Apache XML Project
  – High speed, high performance XML parser
  – All Java, platform independent tool that can be used to parse XML data documents
    • CBRN Data Model’s XML Schema
What CDIET is NOT

• CDIET is NOT
  – A Sea Diet consisting of Seafood
  – A tool that provides transmission of data across a network
Risks and Risk mitigation

• **Minimize Scope Creep**
  – Formal Project Management Document that includes all and only the functionality CDIET will provide
  – Support for only a subset of legacy database formats for the first release
    • MS-Access
    • SQL Server
    • Oracle
    • MySQL
Questions