

The iWay Bioterrorism Response Suite addresses data gathering, integration, and analysis issues associated with bioterrorism threats.

Product Highlights

- **Transforms** common data formats such as comma-delimited files, spreadsheets, EDI, and XML into industry standard formats such as HL7 and HIPAA
- **Integrates** easily with existing enterprise systems without custom coding
- **Delivers analysis and response** through templates that provide syndromic reporting and analysis from data received from hospitals, labs, and pharmacies
- **Complies** with CDC-mandated NEDSS outline for creation of nationwide Bioterrorism Response Systems
- **Includes** best-of-breed technology from iWay Software, Microsoft, and Information Builders

Bioterrorism

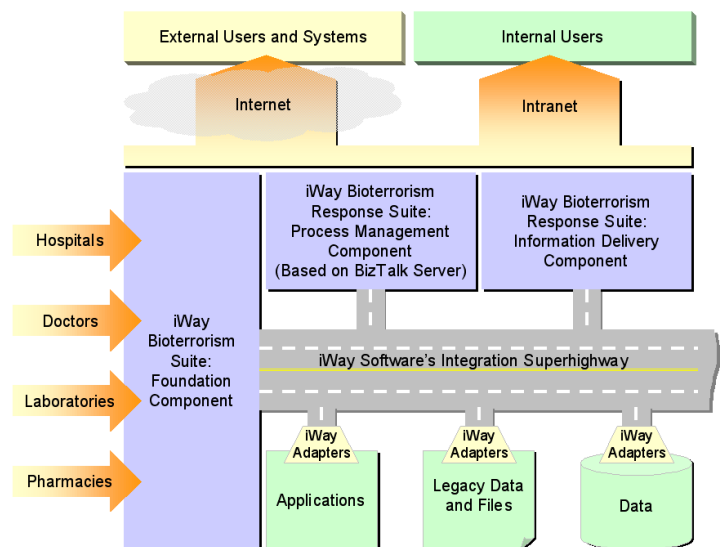
iWay Bioterrorism Response Suite

Transformation, Integration, Analysis, and Response

The concept for the iWay Bioterrorism Response Suite came from a real project with the New York City Department of Health. It has been expanded to handle the major challenges faced by local, state, and federal agencies that need to quickly communicate information about potential threats and suspicious symptom trends in order to rapidly detect and respond to bioterrorist attacks.

Most healthcare organizations have traditionally gathered data using file formats such as Microsoft Excel, ASCII, and comma-delimited files. e-Business initiatives have improved data richness and sharing by promoting the adoption of new formats such as HIPAA, HL7, and ebXML. Ironically, however, this has created new problems for organizations that now must reconcile their traditional file formats with new standard documents.

iWay's Bioterrorism Response Suite is a comprehensive software package providing transformation capabilities, templates for data collection and delivery, and adapters for the rapid deployment of bioterrorism response systems. It was designed from the ground up to provide any-to-any transformation and mapping from a drag-and-drop workbench. It eliminates custom integration code and replaces it with off-the-shelf components for integration assembly and configuration. The suite helps local, state, and federal agencies share data and deliver bioterrorist warnings to the public.



The iWay Bioterrorism Response Suite provides an integrated platform for rapid analysis and response to a bioterrorism incident.

iWay Software's Bioterrorism Response Suite gathers data, integrates it with any internal information systems, defines processes for information handling, and delivers information to the people who need it. The result is fast, accurate responses to bioterrorism threats through better collaboration and information use.

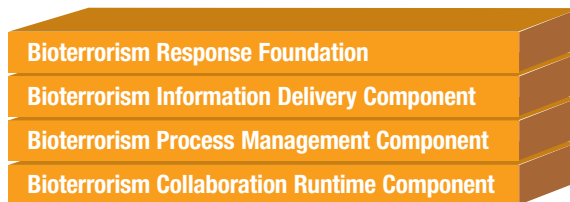
For example, the Centers for Disease Control and Prevention (CDC) can request a format such as HL7, local law enforcement can request an XML document, and federal agencies can request a format compatible with the Criminal Justice Information Systems (CJIS) standards used by agencies such as the National Crime Information Center.

The CDC and NEDSS Mandate

In the wake of 9/11 and the anthrax attacks the CDC announced the availability of over \$1 billion for the creation of bioterrorism response systems in all 50 states. It is the CDC's intention that development of these systems be pursued vigorously with as little time lost in start-up as possible. The National Electronic Disease Surveillance System (NEDSS) is an initiative that promotes the use of data and information system standards to advance the development of efficient, integrated, and interoperable surveillance systems at all levels of government. For example, NEDSS mandates the use of HL7 documents for communication with the CDC.

The iWay Bioterrorism Response Suite is compatible with NEDSS standards and provides additional functionality for process management and information delivery.

The iWay Bioterrorism Response Suite



Bioterrorism Response Foundation

The iWay Bioterrorism Response Foundation includes:

- XML Transformation Engine and Workbench – A document transformation engine that
 - Accepts and formats messages and data over a wide variety of communication protocols
 - Provides a graphical mapping tool that can be leveraged across multiple environments
 - Automatically generates and processes SOAP messages and WSDL documents to enable XML Web services
 - Connects into back-office systems using iWay intelligent adapters
- Collection templates – Predefined templates to collect information from common message and document formats for transformation and subsequent propagation
- **HL7 adapter** – An HL7 adapter and message handler that receives and emits HL7 messages for use with the collection templates or XML Transformation Engine
- **XML adapter, RDBMS adapter, and additional adapter of choice** – Adapters to be used by the collection templates and XML Transformation Engine to move collected data into any archive, data store, or application
- **Implementation services** – 30 days of implementation services

iWay Software's Intelligent Adapter Suite integrates a wide variety of IT assets into a single virtual information system with shared data structures, transactions, and business logic. No matter how diverse or dissimilar the components of your IT infrastructure may be, iWay adapters make them all uniformly accessible for business applications and integration projects.

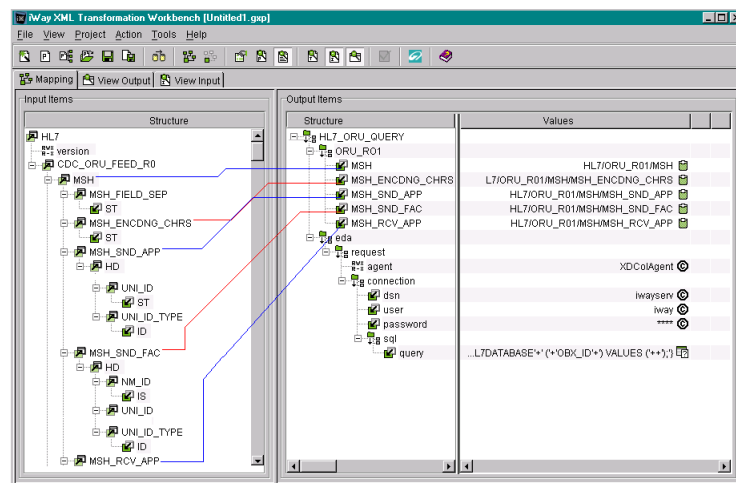
Foundation Detail

Collection templates. The suite provides predefined collection templates for a wide variety of message formats. Some of the more common include:

- All HIPAA messages
- All HL7 message types
- ANSI X.12 EDI messages
- EDIFACT EDI messages
- XML
- Comma-delimited files

These templates rapidly transform raw data – anything from hospital admission information to laboratory test results – into more easily useable information. This information can be sent as an HL7 message to the CDC or used to update a legacy database structure.

Transformation capabilities. A point-and-click workbench helps users design custom transformations. Structured or unstructured data collection documents – of any format – can be converted to XML, enriched with data from other information systems, or stored in a database for trend analysis. Even the most complex documents can be transformed without writing a line of code. iWay technologies span the Microsoft .NET™ and Java™ J2EE™ architectures, so developers can easily incorporate these transformations into these or other environments.



XML Transformation Workbench mapping an incoming HL7 document.

Integration capabilities. The iWay Bioterrorism Response Suite bridges the gap between message formats like HL7 and hundreds of different information sources. By simply installing and configuring iWay intelligent adapters, users can integrate with more than 250 back-end systems, including legacy systems like CICS, VSAM files, and MUMPS databases. Organizations can generate messages from these back-end systems or update them from incoming messages without writing any code. Network protocols supported include FTP, HTTP, message-oriented middleware (MOM) systems, and SOAP-based Web services, among others.

Information Delivery Component

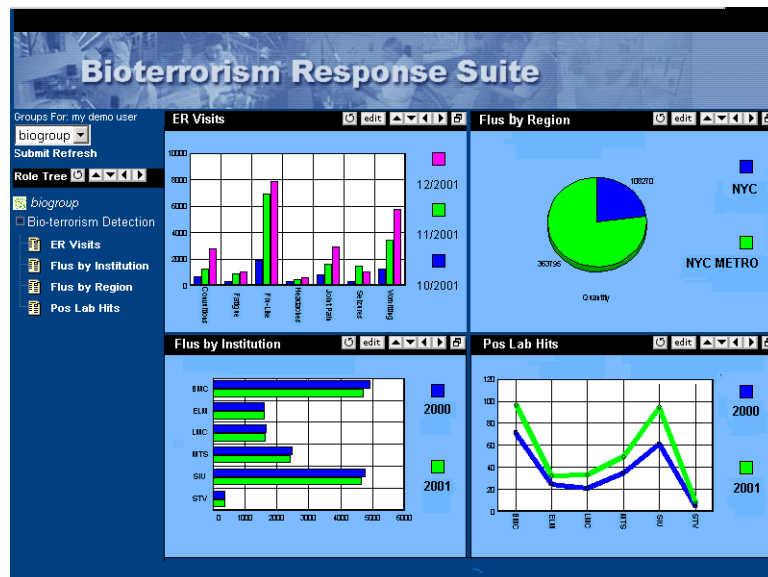
A complete information delivery toolkit makes it easy to ensure that any browser or mobile device can receive any information – from the results of complex analysis to individual transactions. Information can be delivered in virtually any format, including:

- Columnar reports, graphs, or combinations of the two
- HTML, PDF, Excel, Word, e-mail, wireless formats, and more
- OLAP-style slice-and-dice windows
- Standard hard-copy reports

This is a limited-use license of the WebFOCUS Pro Server for use with the information delivery templates discussed below.

Information delivery templates. The iWay Bioterrorism Response Suite makes it easy to deliver symptom-tracking information to the people who need it most.

Symptom-monitoring and reporting templates can be customized within days to provide reports, charts, and e-mail alerts for quick insight into symptom spikes as information is processed through the suite. The symptom-monitoring templates create views of the information that are simple enough for at-a-glance monitoring, but sophisticated enough to provide detailed information with a few mouse clicks.



The information delivery templates make it easy to get information to the people who need it most.

Process Management Component

This component allows organizations to automate both internal and external processes. The heart of the process management component is the iWay Enterprise Integration Broker – an Enterprise Application Integration (EAI) tool based on Microsoft BizTalk Server that manages complex multi-step processes. Users design process flows with a graphical tool that lets them diagram the sequence of interactions among their message inputs, legacy systems, packaged applications, and databases.

Process flows can be as simple or complex as users want. For example, users can create a process that receives an HL7 document, converts it into XML through the Bioterrorism Response Suite's Foundation Component, updates an analytic database such as Microsoft SQL Server, updates a report on a Microsoft Web server, issues an alert if conditions warrant, and then creates the WSDL necessary to let an outside agency access the information as an XML Web service.

Collaboration Runtime Component

This option is a minimal version of the foundation component. When installed at an external agency it provides the technology to rapidly and securely send information to the iWay Bioterrorism Response Suite. This option provides a low-cost, out-of-the-box solution for communicating with healthcare organizations using a secure Internet-based connection.

Find Out More

To find out more about how the iWay Bioterrorism Response Suite can work within your state or municipality, visit www.iwaysoftware.com, e-mail info@iwaysoftware.com, or in the U.S. and Canada, call toll-free (866) 297-4929.

