State of West Virginia
Department of Environmental Protection (DEP)
Division of Air Quality

State and Local Emissions Inventory System (SLEIS)

2012 Emissions Inventory Conference

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Agenda

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Background

More than 20 state and local agencies used *i*-STEPS software to manage point source emissions inventory data.

For the most part, *i*-STEPS worked well to meet the agencies' data management needs. It allowed them to collect data from facilities, quality assure the data, and generate export files for reporting to EPA.

However, the database design reflected AIRS/AFS, which was retired (for emission inventory reporting) in 2000.

The latest version of *i*-STEPS could generate NEI Input Format (NIF) files, but could not export data in a format that could easily be uploaded to EIS.

Background

At the 2008 Emissions Inventory Conference a group of agencies identified a need to replace their existing i-STEPS databases with a new system that is compliant with EPA's new EIS

The agencies formed a consortium and agreed to develop a new, shared point source emissions inventory system with these core features:

- Web-based interface for both public and agency users
- CROMERR-compliant electronic reporting from the regulated community
- Designed to reside in Oracle or MS SQL Server environments
- Generate and submit CERS XML files to EPA's EIS

Of the original eight agencies, two locals later decided to adopt their state emissions inventory system, and left the group.

Background

SLEIS Consortium

- Arkansas Department of Environmental Quality
- Arizona Department of Environmental Quality
- Delaware Department of Natural Resources and Environmental Control
- New Hampshire Department of Environmental Services
- West Virginia Department of Environmental Protection
- Metropolitan Government of Nashville and Davidson County, Tennessee

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Exchange Network Grant

The SLEIS Consortium agencies learned that EPA Exchange Network grants were available to subsidize the development costs.

•EPA awards Exchange Network grants to facilitate electronic data exchange and reporting of environmental data.

•For the FY2009 grant cycle, the maximum award for single applicants was $300,000 but went up to $500,000 for collaborative multi-partner grant projects. This was a perfect fit for our consortium.

•Additionally, the availability of Exchange Network grants in future years allowed the SLEIS Consortium agencies to consider plans for future modules, such as fees, area sources, permitting, or enforcement.

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Exchange Network Grant

The Arkansas DEQ volunteered to take the lead in applying for the grant and managing the contract.

The SLEIS Consortium agencies collaborated extensively from September through November 2008 to prepare the grant application before the deadline.

Each agency's Director had to provide a statement of Support, and the agencies had to make commitments to the project:

  Work with consortium members to define requirements, participate in conference calls, implement the web solution, and share the results with other state, local, and tribal agencies

The grant was approved on March 25, 2009

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Strawman

The SLEIS Consortium agencies collaborated over the next 8 – 9 months in a needs analysis ("strawman") to identify and rank shared priorities

There were nearly 50 revisions to the strawman, most requiring at least one conference call. The final version contained about 110 features

The prioritized strawman analyses were incorporated into the specific requirements for Arkansas' Request for Qualifications (RFQ) for contractors to develop the SLEIS software

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Contractor Selection

In September, 2009 Arkansas asked the SLEIS Consortium agencies to participate in the contractor selection process.

Six vendors submitted responses to the RFQ. The proposals were sent to the selection committee in October, and each response was rated by a numerical system devised by the committee.

In January, 2010 the contract was awarded to Windsor Solutions.

Through 2010 and 2011 Windsor worked with the Consortium agencies to analyze, design, develop, test, and install the new system.
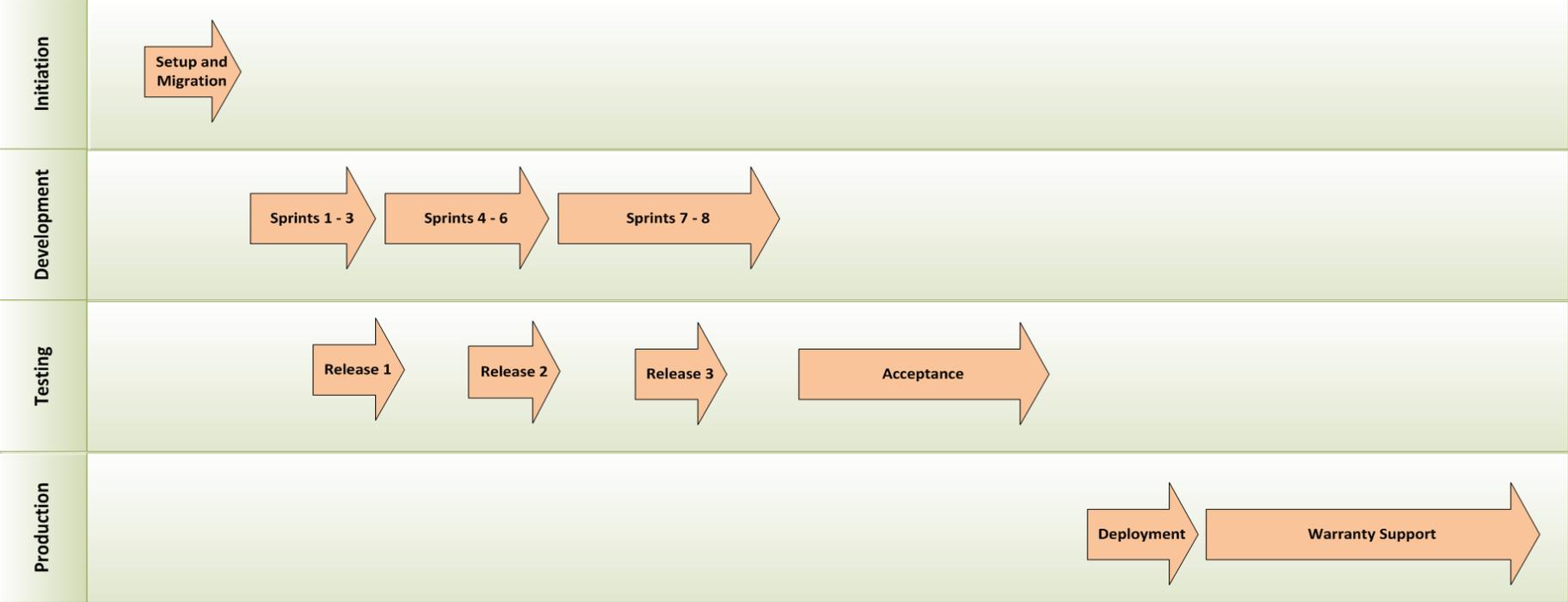
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Development Approach

- Extensive design process involving multiple workshops with individual members and the entire Consortium.

- Use of Agile development methods with multiple software test releases in parallel to development tasks.

- Rigorous quality assurance by Consortium members.

- Regulated community representatives involved during design and testing.

- Customized i-STEPS data migration and implementation for each Consortium member.
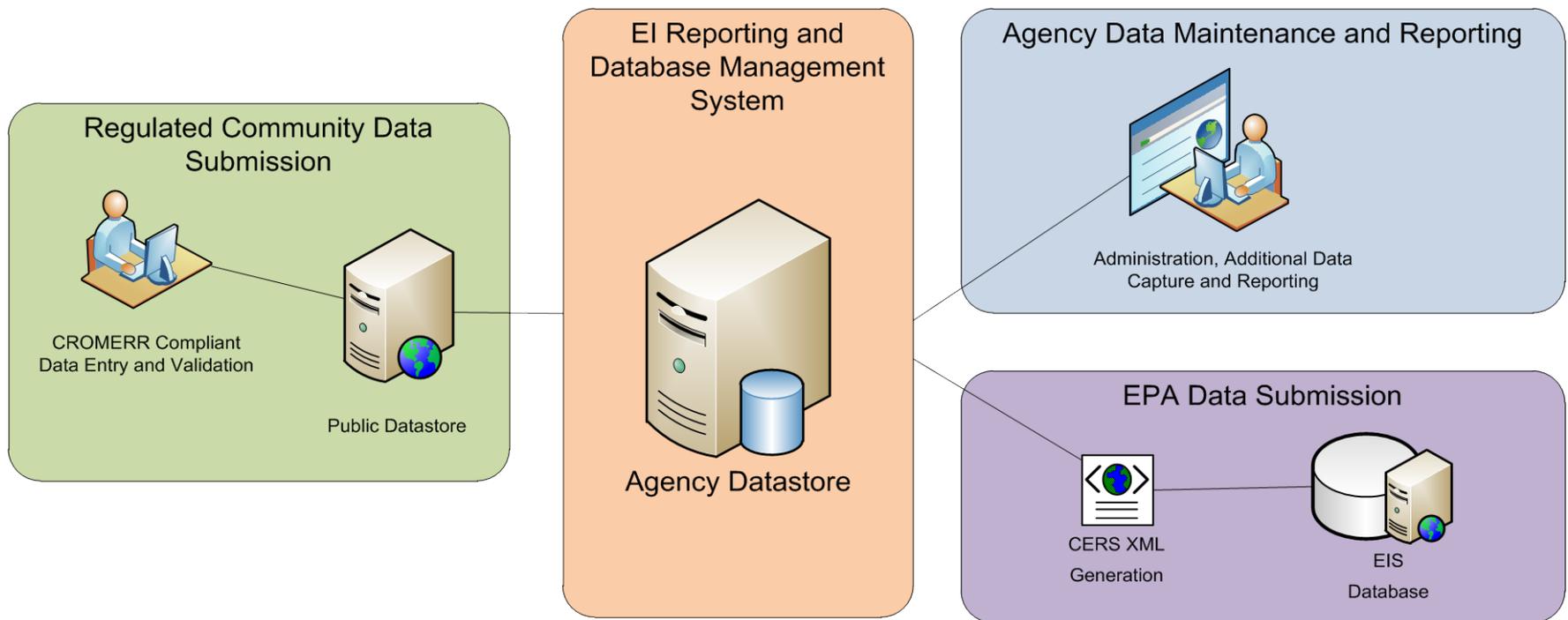
- Post-production warranty support.

Solution Overview

Solution Overview

- Enables the regulated community to submit point source emissions inventory data, and related meta-data, to state and local agencies using an intuitive and streamlined Web application.

- Provides a secure, CROMERR-compliant reporting mechanism.

- Enables regulatory agencies to manage, review, and validate the collected data.

- Highly customizable, allowing each agency to configure the system to meet their own unique needs.

- Manages the generation and submission of CERS format XML files to EPA's EIS using a built in Node client.

Solution Overview

- Supports multiple reporting years of emissions inventory data, both current and historical (migrated from i-STEPS).

- Uses Microsoft .NET development platform.

- Able to use Microsoft SQL Server or Oracle RDBMS.

- Employs industry best practices for technical architecture

Current Status

SLEIS was delivered to the Consortium agencies in February and March of this year.

Several Consortium agencies used SLEIS on a voluntary basis for their 2011 inventory.

West Virginia will use SLEIS to collect our 2012 inventory. We have tentatively scheduled a training session for facility users in early December, 2012.

Current Status

- The initial SLEIS implementation is now within a six month warranty period, ending August 31, 2012.
- Windsor will address any critical defects during the warranty period.

- Windsor is also addressing any CROMERR related issues and assisting agencies with their CROMERR applications.

- For additional information, or for current SLEIS related news, please visit the SLEIS website at sleis.windsorsolutions.com

Summary

Several factors contributed to the successful outcome of the project:

• EIAG Staff were willing and able to provide whatever support we required
• Exchange Network goal of providing funding to facilitate national data flows
• ADEQ's willingness to manage the grant
• Windsor's insistence on bringing agency and industry stakeholders into the development process at each critical stage
• The inclusion of agency IT staff throughout the development process to ensure smooth installations.

• Most importantly, the willingness of the member agencies to dedicate the time needed, to collaborate, and to see beyond purely local needs and recognize that the system had to work for everyone

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Questions?

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