

New York State Department of Health
New York State Department of Environmental
Conservation

Pilot Data Exchange Implementation

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Presenters

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Background

- During a pilot study in 2004 NYSDEC and NYSDOH established exchange of ambient air quality monitoring data using PHINMS.
- Current project supported by EPHT funding to establish automated linkage between Exchange Network Node and PHINMS.
- Supports EPHT need to establish continuous, automated exchange of data between environmental and health agencies.
- Extends the original Pilot Study objectives by bringing forward the integration of the Exchange Network and NYSDEC Network Node, and makes this integration a core part of the support for the data exchange.
- Conducted jointly by NYSDOH and NYSDEC with consulting support from Windsor Solutions, Inc.

Benefits

- Provide public health organizations with timely information about environmental conditions and potential hazards to support linking of exposures and health effects.
- Enable public health organizations to implement the necessary actions to protect the health of the public in light of known environmental hazards.
- Provide environmental agencies with ready access to information about possible human health concerns associated with industrial and commercial activities over which they have regulatory control.
- Facilitate data sharing and exchange so that data and resources can be used more efficiently and effectively to reduce production of redundant, inconsistent, and conflicting data.

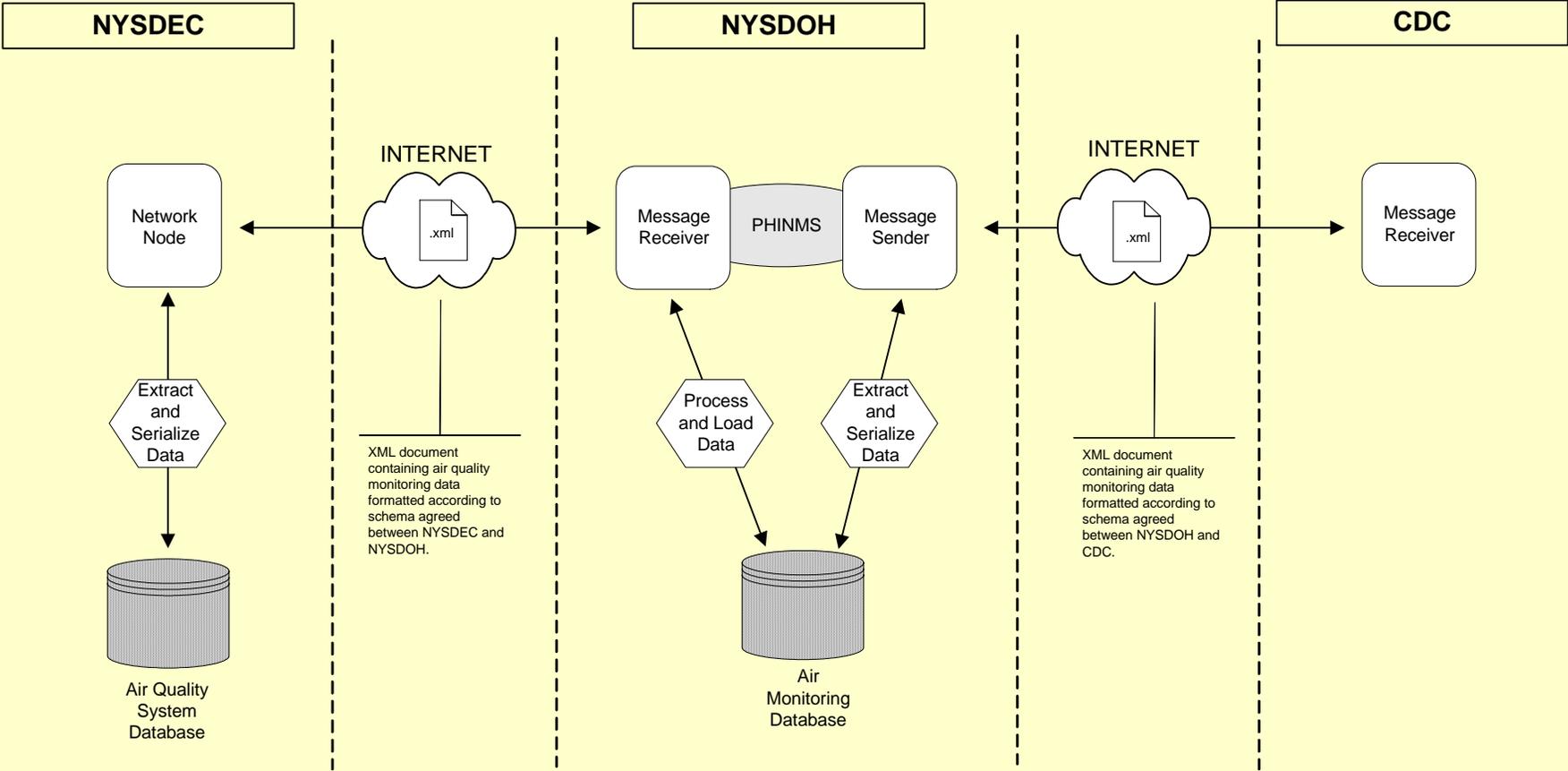
Project Objectives

- Develop technical specifications and system architecture for the exchange of ambient air monitoring data between NYSDOH and NYSDEC
- Define a specification for the automated data flow between NYSDEC and NYSDOH
- Build the necessary components required to support the automated flow of ambient air monitoring data from NYSDEC to NYSDOH
- Conduct advanced functional and performance testing
- Provide recommendations to other state and federal environmental and public health agencies

Vision

1. Ambient air quality monitoring information will be extracted from an NYSDEC air program database and formatted according to an agreed XML schema.
2. The resulting XML document will be passed through the NYSDEC Exchange Network Node Web services to the PHINMS Message Receiver service across the Internet.
3. NYSDOH will then process the received information into their own database for analysis and linkage to other NYSDOH health data sources.
4. NYSDOH may then make the data available to CDC in an agreed upon format.

Vision



Project Approach

- Develop technical architecture based on the technical specifications for the PHINMS and EPA Exchange Network.
- Develop security approach based on existing NYSDOH and NYSDEC standards as well as the EPA NAAS and PHIN standards.
- Develop data flow specifications
 - data elements to be shared (Data Exchange Template)
 - XML schema
 - flow configuration
 - trading partner agreement
- Implement flow of ambient air monitoring data using the technical architecture and data flow specifications.
- Conduct functional and performance testing using different payload content, with special attention to performance issues.
- Deploy the data exchange in production environment
- Prepare final report on findings.

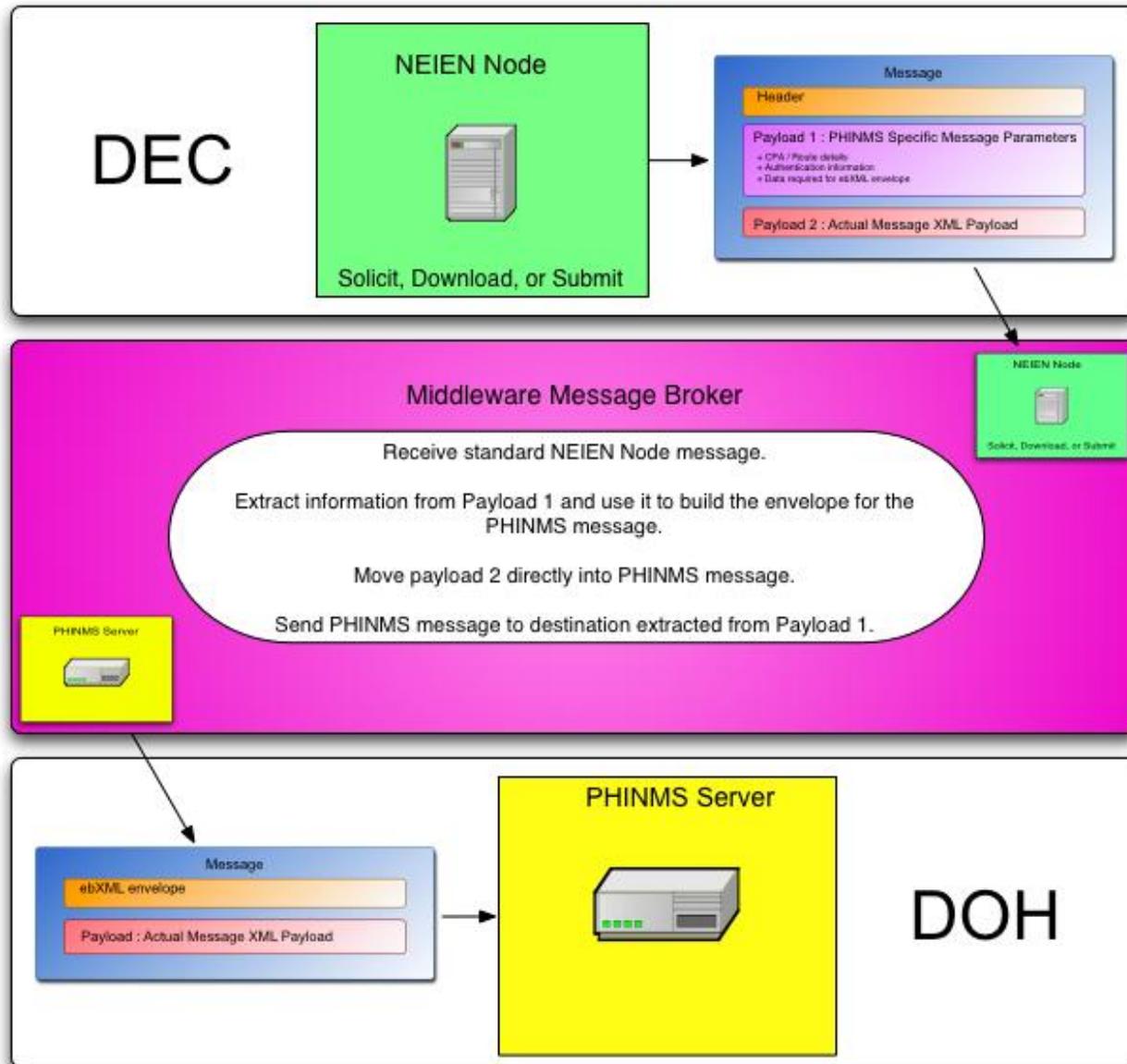
Technical Approach Selection

- Current process is manual, fairly resource intensive.
- Replace with an automated machine to machine process.
- Process to be independent of either of the existing systems.
- Agency-agnostic, facilitating future information exchange globally without agency specific development.

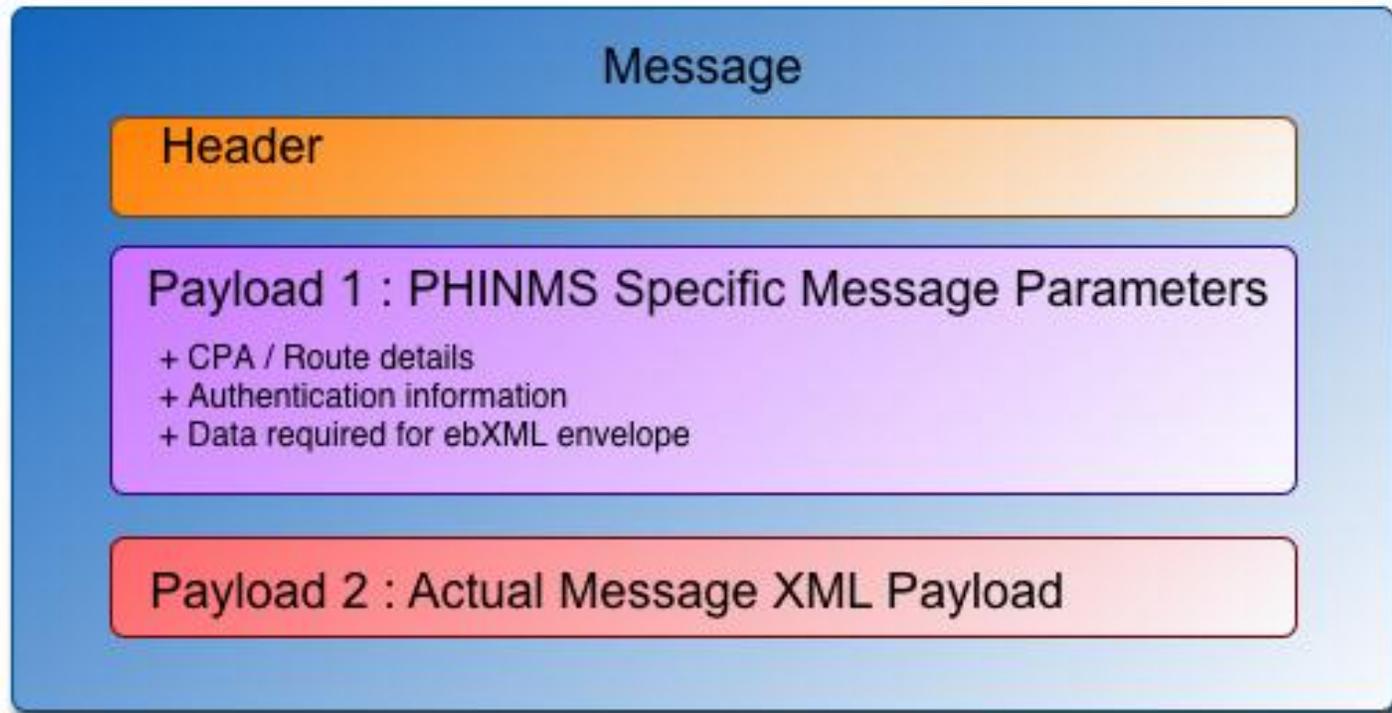
Integration Broker

- Stand alone Java application.
- Intermediary between an Exchange Network Node and a PHINMS receiver.
- Receives a Node message, translates it to a PHINMS message and pass it to the destination.
- Will be able to operate in any situation where a Node needs to pass messages to PHINMS, and will not be environment or agency specific.
- Will initially only handle messages sent from DEC to DOH (in future will be capable of bi-directional transfers).
- Will initially be hosted at DEC (designed to be hosted by any party in any location, and utilized by unlimited trading partners).

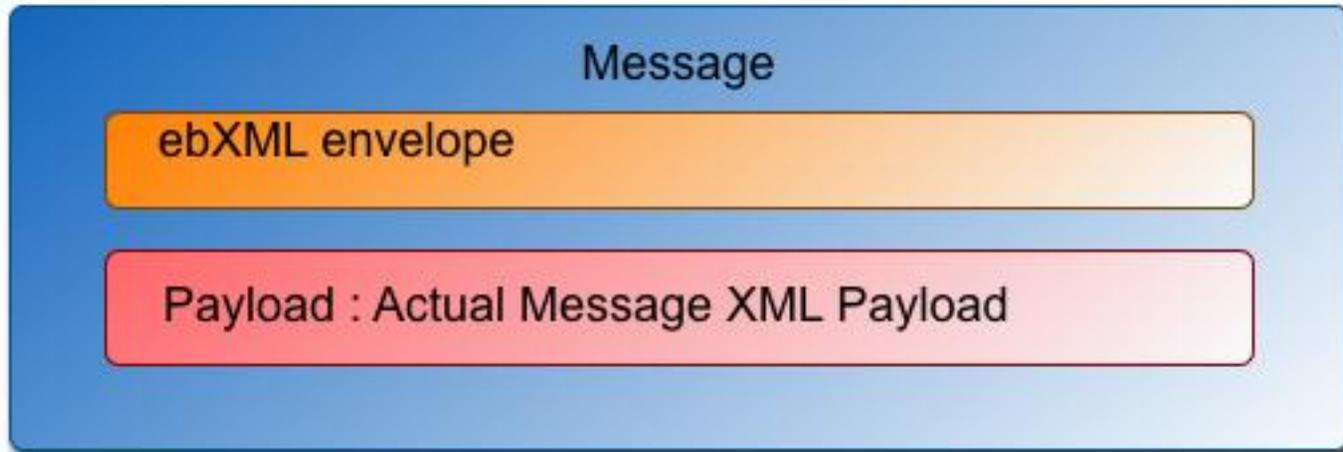
Overview



Message from Node to Broker



Message from Broker to PHINMS



PHINMS Implementation Considerations

- Diversity of PHINMS configurations
- Code re-use / maintenance cycle
- Integration Broker ownership

Questions