State/EPA National Environmental Information Exchange Network

Emissions Inventory Conference
April 16, 2002
Presented by Kristen Dunne, ECOS and Mary Shaffran, EPA
“The future of protecting human health and the environment depends on utilizing powerful information technology tools to inform decision makers.”

-- Kim Nelson, Assistant Administrator and Chief Information Officer, EPA Office of Environmental Information
Current Status of State/EPA Data Exchange

- The traditional system-to-system approach to information exchange is expensive
- State and EPA systems are becoming technically obsolete
- State and EPA systems are becoming functionally obsolete; not able to satisfy staff or stakeholder business and information needs
Trends Driving Improvements to State/EPA Data Exchange

- Increasing public expectations for e-government
- Devolution of environmental management programs to states and local governments
- Integrated information is seen an increasingly important environmental management tool
- Increased desire of EPA for more and more data
- States want more data, from EPA and other states
- Increased burden on partners to ‘feed’ EPA information, often in formats inconsistent with their business needs or technologies
The State/EPA Shared Vision

States and EPA are committed to a partnership to build locally and nationally accessible, cohesive, and coherent environmental information systems that will ensure both the public and regulators have access to the information needed to document environmental performance, understand environmental conditions, and make sound decisions that ensure environmental protection. (March 1998)
States and EPA Created a Network Blueprint That

- Refines the State/EPA vision
- Describes the Network components
- Identifies
  - technical issues and options
  - critical policy and political issues
- Describes specific, visible benefits the Network will produce as it is implemented
National Environmental Information Exchange Network
Network Overview
The Network:

- Is standards-based
- Leverages State and EPA investments
- Provides flexibility

“The core of the Network is not technology… it is a commitment to change the way data is exchanged.”
Network Is Based on Four Principles

- Stewardship of specific data established by mutual agreement between two or more trading partners
- Stewards are responsible for the quality and availability of their data
- Network members are responsible and accountable for ensuring the integrity and currency of those copies
- Network members agree to use the network technology standards
Network Benefits

- Delivers reliable, standardized and consistent data to the public, government officials, industry, environmental groups and others
- Uses a data-centric approach focused on data, data quality and data standards
- Reduces reporting burden
- Enhances potential for data integration
- Gives agencies more control over their own data
Network Benefits (cont.)

- Provides a framework and transition path for the myriad of system modernizations ongoing
- Eliminates need for tightly coordinated systems development
- Simplifies and improves security
- Allows access to more current information
- Sets the stage for the exchange of broader information
Changes to State-EPA Roles & Responsibilities

- States assume increased data stewardship responsibilities
- States and EPA collaborate to develop data/transaction standards and trading partner agreements
- EPA has responsibility for getting data into its own program systems
- States have responsibility to map internal system data to data exchange templates
Current Flows

Different exchange formats for X, Y, and Z for different states

Different tech. infrastructure and security mechanisms for each transaction
Network Flows

These hexagons represent standard Data Exchange Templates for X, Y, and Z.

Standard tech. infrastructure and security mechanism for all transactions.
Core Components of the Exchange Network

- **Network Administration**
  - Registration, process support, communication

- **Technical Infrastructure**
  - Uses standard Internet tools

- **Data Standards**
  - Common way to define shared terms

- **Member Infrastructure**
  - Capacity to participate

- **Data Exchange Templates**
  - Common way to package shared data

- **Trading Partner Agreement**
  - How information flows between partners
Timeframe and Goals

End of 2001
- Tested major data exchange infrastructure elements
- States and EPA made major network infrastructure decisions and investments

First Half of 2002
- Network supports official flows across program areas with a stable, secure infrastructure
- Charter Network Steering Board
- Publish schedule for Type 1 flows for 2002-2003
- Further define and clarify flow types

Second Half of 2002
- Publish Trading Partner Agreement guidelines and checklists
- Establish statement of principles for Network Partner Responsibilities
- Develop and publish Network Exchange protocols
Implementation Plan
Core Strategies

- Partners must “learn by doing”
- Network must demonstrate success early
- Act incrementally
- Build in flexibility
- Commit to change
  - and “change management”
Implementation Plan Goals

Key Performance Measures for 2004

- Aggressive timeline for full Network implementation by 2004
- 35 states and other partners use the Network for most existing and a new set of expanded flows
- All necessary guidance and administration to support the Network will be provided by the Network Steering Board
For Additional Information

Kristen Dunne, Environmental Council of the States
(202) 624-3502
kdunne@sso.org

Mary Shaffran, EPA Liaison for Public Health
(202) 564-6668
shaffran.mary@epa.gov

Helpful Web Sites:
http://www.epa.gov/oei/imwg
http://www.epa.gov/neengprg/
http://www.ecos.org