Network Knowledge Meeting
April 16, 2003
Philadelphia, PA
Meeting Summary

Attendees

Kevin Brown, Sr., DC DOH	Gail Jackson – PA DEP	N.V. Raman – DE DNREC
David Ellis – ME DEP	Ming Jiang – MD DEP	Andrea Reisser – CDS/CSC
Terry Forrest – EPA OEI	Ed Kim – EPA Region I	Patrick Samba – DC DOH
Don Fulford – CSC	Joe Kunz – EPA Region III	Bob Simpson – EPA Region I
Pat Garvey – EPA OEI	Mike Matsko – NJ DEP	Chris Simmers – NH DES
Jen Gumert – PA DEP	Dennis Murphy – DE DNREC	Brett Stein – Xaware
Dudley Hackett – PA DEP	Vincent Nathan – DC DOH	Pete Tenebruso – NJ DEP
J.R. Hodel – WV DEP	Molly O'Neill – ECOS	Michael Townshend – DE DNREC
David Holmes – CT DEP	Denise Piastrelli – CTC	Carl W. Wilson – DC DOH
Nancie Imler – PA DEP	Larry Priebe – MD DEP	

Welcome and Statement of Purpose

Joe Kunz, EPA Region III, welcomed the meeting participants and provided building logistics and suggestions regarding lunch.

Pat Garvey, EPA OEI, gave opening comments and provided a summary of the Network Knowledge Meeting binder and the day's agenda.

Meeting attendees provided introductions.

Molly O'Neill, ECOS, welcomed the group, stated that the goal of the meeting was to get everyone on the same page. She indicated that they were "ready to start moving" and prepared to share the tools and guidance with the group.

Exchange Network Principles and Components *(Pat Garvey, EPA OEI)*

Pat Garvey provided an overview of the Exchange Network, explaining that it was Internet- and standards-based. A Trading Partner Agreement is the who, what, where, why, how. The XML schema is the format.

Questions/Discussions

- Gail Jackson raised the issue that a reference was made to flowing RCRA information, but RCRA won't be ready until later this year. RCRA is being executed in phases; three models are out in grants. The Integrated Project Team (IPT) is trying to get input from participants regarding schedule, needs, and the schema. The IPT is saying some components of RCRA will be available in 2003 and some will be available in 2004. States can develop schemas, but they need EPA and CDX to be ready.

- Will schemas be reusable? The states clearly recognize the value and are trying to make them reusable. In the eDMR Challenge Grant from facilities to states to EPA, when loading schema into the registry, it includes the FRS schema and the eDMR schema. The "plug and play" is clearly visible. The purpose of the Core Reference Model is to see the plug and play.

Node Overview Presentation *(Dennis Murphy, DE; Chris Simmers, NH; and David Ellis, ME)*

The session provided an overview of the Node and its benefits. The four primary benefits of the network Node are insulation, independence, automation and access.

Questions/Discussions

- Discussions have taken place with other federal agencies regarding the Exchange Network. EPA is keeping agencies apprised of the activities of the Exchange Network. Molly O'Neill has had conversations with the U.S. Departments of Health and Agriculture as well as the Centers for Disease Control.
- A conversation ensued about the Protocol. The Protocol is the rules of the road. Because technology is evolving so rapidly, if a Protocol exists for 12 months, it will be doing well, but will need to be revised. Verbatim, the Node Protocol is already outdated, but conceptually, it is fine.
- The Web Services Description Language (WSDL). The WSDL is a machine-readable description of how the network will work. State Nodes must meet the minimum requirements of the WSDL. The question was raised whether states will have individual WSDLs for each TPA or one WSDL for all TPAs. In order to exploit all additions, EPA will develop a standard WSDL for all Nodes and change the address.
- The WSDL is the same as a special purpose XML schema. The Network WSDL is 10 pages; therefore, you don't want to write one; allow a machine to write it.
- Is the WSDL specific to the Node or to web services? If it meets the standard definition of web services, it has a WSDL file. It is an industry standard that all web services have a WSDL file.
- How would you deliver parameters to the Node without a WSDL? The Flow Configuration File. The SOAP structure holds and envelops the parameters, but it doesn't tell you the parameters. The parameters are in the Flow Configuration File, not the TPA.
- A recommendation was made to consider adding another GetServices parameter.
- While the WSDL file is a key to accessing information, states will not need to implement security because the WSDL is publicly accessible. Other methods for security are being implemented. Universal Description, Discovery and Integration (UDDI) has not yet been developed for the Network.
- The Protocol and specification documents have a shelf life of 12 months. What will change? Will the changes make what has been built obsolete? How will the changes be funded? The Node team is endorsing a mentoring process and developing a Demonstrated Node Configuration CD that will be distributed. The Protocol and Specification documents for the Node 1.0 will be on the CD. States basically will have the Protocol and Specification documents for a Node handed to them and be able to select the components they need. The team anticipates enough changes in technology by

the end of the year that the Demonstrated Node Configuration will need to be updated. By utilizing the mentoring process, states won't be building their Nodes individually. Twenty-five-million dollars has been requested in the Grant Program in the President's 2004 budget.

- Are tools available in Oracle to generate the WSDL? Yes, a wizard generates the WSDL based on parameters that are identified.
- Exchanges over the network between states may exceed the regularly scheduled exchanges with EPA.
- A question was raised regarding bi-directional flows and if any other states were doing outbound flows. Melanie Morris of Mississippi DEQ was identified as a contact. Additionally, CSC's agenda includes requirements for an outbound flow.
- DIME is a new, more efficient transfer protocol; however, it is not yet fully supported.
- David Ellis provided some lessons learned from the Maine experience. Maine had a large database integration issue, and is participating in the Node project. Maine runs Oracle 8i database version as the backend. The June 2003 release of Oracle middleware will support mixed coding. DIME attachments will be supported in January 2004 in the release of Oracle 10i. David did not see a difference in speed between developing in Oracle versus middleware; however, Maine just recently completed the system and has yet to receive any large files.
- The "Node 1.0: Diverse Database Environments, Hardware and Middleware" chart (Tab 4 of the binder) was discussed. The chart demonstrates the ability to develop Nodes in diverse environments. The environments were chosen by the states based on the existing database platform as well as their comfort level with the environment. The charts were not product endorsements. A cost comparison for middleware is not published.
- Because there was interest expressed regarding the use of Oracle, David Ellis provided some insight about the Maine experience. Maine was already using Oracle and owned the licenses. The state went through the RFP process and rated functions, as well as cost. Florida's experience with Oracle helped with Maine's choice. David was impressed that Oracle hard coded the WSDL and built the code for SOAP for free, and incorporated wizards for WSDLs into its next release. He was confident that Oracle would support the Node beyond version 1.0. He felt that Oracle support was expensive, but it provided incredibly good service, and that Maine had great access to Oracle developers. Maine spent $103,000 on its Node; $50,000 was for Oracle. Training is extra time and money. The Demonstrated Node Configuration will be available for all seven Node 1.0 states, as well as for other states to use.
- CROMERRR is for facility to state or facility to EPA transactions. Security guidelines are being developed by CDX and will be available in May. They are not similar to the Implementation Guide; the security guidelines are high-level guidelines and requirements. Two security documents have been posted on the Exchange Network website for comment.
- Lessons learned
    - Web services standards are moving targets; they will be presented to the WC3 in draft form. Once accepted, web services will be supported and will be able to be utilized productively by states.
    - UDDI is not ready at this time.
    - Not all DIME implementations are supported.

    - WSDL tools exist at all different levels.
- Prior to the lunch break Pat Garvey asked the meeting participants to ponder two questions:
    - In 2004, what should the grant guidance emphasize?
    - What type of programmatic assistance do the states need from the Working Group Board?

Exchange Network Website *(Molly O'Neill, ECOS)*

Molly O'Neill reported that many people have commented on the usefulness of the Network Knowledge Meeting binders that were distributed at the meeting. However, the Exchange Network is moving away from binders and toward the www.exchangenetwork.net as a resource. Molly provided an overview of the website and its ease of use and navigation.

Action Item
Terry Forrest – Add the link for www.exchangenetwork.net to the OEI website.

Open Discussion – Ideas for the 2004 Grant Program

- Include Operation and Maintenance (O&M) as a category under the Readiness Grant.
- Include funding for Node 2.0, "son of Node 1.0," money to get states to the next level.
- Consider Document Management and its association with geospatial data.
- Consider the state roles in identity management.
- Discussion ensued regarding whether states would be willing to send in proposals without notification of appropriations. Some believed EPA would look at the proposals. Others felt it was a risk and that grant guidance should be sent out early.
- Expand on the actual business flow and include electronic post submissions, which would help the review process and reduce the amount of time required for review.
- Provide a better definition of geospatial, elevate it or redefine it in the grant proposal – Do all grant proposal need to be from regulatory or geospatial flows that support a national system? State-to-state and state-to-regional data flows are a priority. The need to integrate data with other departments and to identify the consumer requirements for counties was recommended.
- No structural change comments were reported.
- Change federal systems in which states have identified problems or recommended improvements – STAG money cannot be used to fund a federal process that should have been completed. Fund an IPT to get end-to-end data.
- Construct a data warehouse between local state government and post it to the Node – it is already being done by Oregon.

Exchange Network Registry and XML Schema *(Molly O'Neill, ECOS)*

The www.exchangenetwork.net website is up and running, and it is the most authoritative source for XML registry and schema information. The site contains the current versions of all schemas; other schemas are being registered. Draft templates will be used to collect metadata. May need "cross walk"-type of training to help create data templates and schemas and map data if data dictionaries are too difficult to use.

Action Item

- *Molly O'Neill/Terry Forrest – Link the final version of the XML schemas to the OEI website.*
- *Molly O'Neill – Put status of schemas next to their entries on the Exchange Network website.*
- *Molly O'Neill – Add a site search for the entire Exchange Network website.*

States Report on Their Network Activities and Needed Support *(Pat Garvey, EPA OEI)*

Pat Garvey summarized some of the needs that had been identified during the day.

- More completeness of the Network
- More communication between federal and state programs about new ways to exchange information
- More frequent face-to-face meeting on CDX and the Network
- More training on what CDX and the Exchange Network are trying to accomplish – more intense training at the user level on specific exchanges, schemas, Nodes, parsing, and flow training
- Technical assistance for states and tribes on integrating with the Node – CDX can help with the initial front end – reusing code, how to get web services, etc. Other states can capitalize on what has already been done by using the Demonstrated Node Configuration.

States – Progress Made/Challenges Faces

- Dennis Murphy (DE) – the Node is 98% complete; working with the program people on getting the data flow up for FRS is the biggest challenge.
- Gail Jackson (PA) – getting started building the Node, have partially dedicated resources, developing a statement of work for a contractor, drafted a project plan, ordered hardware, sketched out architecture; lack of expertise in all essential software is the biggest challenge.
- Chris Simmers (NH) – faced administrative hurdles in accepting money, building an air toxic database in-house, Beaches data cleanup is in progress, an RFP for contractor support is about ready to be issued; administrative and budget issues are the biggest challenge.
- David Holmes (CT) – making progress on Challenge Grant, issuing RFP to cleanup water data; Yvonne Bolton moved to Bureau of Water.
- Vincent Nathan (DC DOH) – DC did not receive a grant last year.

- Larry Priebe (MD) – received a Readiness Grant, money is in-house, working on the Node project, evaluating software; did not order hardware, 9-12 months until Node is up; also working on an enterprise multimedia system the competes for time and resources.
- Mike Matsko (NJ) – received four grants, continue to map facility data for FRS, working on data cleanup, making enhancements to an environmental management system to improve data quality and management to federal systems, procured a consultant to construct a Node, in the process of evaluating what NEI data they can capture for NEI system; state Information Technology Agency has established a three-tier infrastructure and identified Sun 1 as the application server for New Jersey, wants to leverage existing work so it doesn't have to "reinvent the wheel," doesn't want to support the hardware that the products reside on.
- J.R. Hodel (WV) – procured software to upgrade from Oracle 8i to 9i, but doesn't have the software yet, West Virginia's Electronic Permitting project uses XML and has a pool of XML talent, but he doesn't have any XML talent and hasn't made progress with Human Resources, J.R.'s schedule is another obstacle; has solicited a contract to get Java background support, wants to use ColdFusion.
- David Ellis (ME) – doesn't work for Maine DEP, and did not want to comment on the grant.

General Discussion *(Pat Garvey, EPA OEI)*

Challenges
- Resources at the state level and state constraints, such as changes in administration
- Keeping regional, headquarter and state program people and IT people involved
- The need for states to have guidance on how to get started – the 1st, 2nd and 3rd steps to tackle.

2003 Grant Process *(Pat Garvey, EPA OEI)*

Overall, 117 proposal submitted.
- One Stop – 7 (all eligible states submitted)
- Readiness – 64 (only one per state allowed; some states submitted more than one proposal)
- Challenge – 33
- Tribes – 23
- Territories – 6 (either One Stop or Readiness)

Evaluation of the grant proposals and recommendations for funding will take place on April 23, 24, and 25 in Chicago. Kim Nelson, EPA CIO, will have the final say in all grant awards. Grants, which will be rolling awards, will be given in early-to-mid May. States, tribes and territories must work through the legal package to receive the funds. EPA would like to beat last year's August 8 award date. It is imperative that Congress knows that the Grant Program is essential to the success of the Exchange Network. The FY 2003 Grant total amount is $19.9 million for awards.

Final Comment from David Ellis

If states adopt the Demonstrated Node Configuration, they will still need contractor support to move forward. Federal testing doesn't guarantee that states won't have problems. The Node 1.0 needs state-to-state transactions. He believes that the Implementation Guide omitted the fact that it will require quite a bit of time and money at the local level to support the Node.