

**Network Knowledge Meeting
April 22, 2003
Chicago, IL
Meeting Summary**

Attendees

Milo Anderson – EPA/R5	Jim Hudson – Wisconsin	Patrick Detscher – Acclaim Systems
Pam Annarummo – Rhode Island	Charles Huggins – Georgia	Mash Eslami – SAIC
Tom Aten – Wisconsin	Karen Irion – Louisiana	Dale Luddeke – CSC
Rita Bair – EPA	Noel Kohl – EPA	Chris Matthews – CSC
Mike Beaulac – Michigan	Ed Liu – EPA	Andrea Reisser – Concurrent Technologies Corporation (CTC)
John Bernstein – EPA	Josie Lopez – EPA/R8	Brett Stein – Xaware
David Blocher – Maine	Dale Luecht – EPA	Delroy Ward – SAIC
Dennis Bomke – Illinois	Mary Lou Martin	
Bill Boyd - Georgia	Tony Moore – EPA/R5	
Lyn Burger – EPA	Patricia Moran - Wisconsin	
Frank Catanese – New Hampshire	Rich Nawyn – EPA/R4	
Terry Forrest – EPA	Richard Perkinson – Massachusetts	
Chris Clark – EPA	Deborah Quinn – Massachusetts	
James Coleman – EPA	Dorian Reines – EPA	
Ken Dover – Missouri	Sandy Smith – Missouri	
Cheryl Franklin – Indiana	Glenn Thames – South Carolina	
Randy Gee – Cherokee Nation	Maryane Tremaine – EPA/R7	
Steve Goranson - EPA	Adele Vogelgesang – Ohio	
Ann Gunning – South Carolina	Mark Wensel – Utah	
Michael Held – Wisconsin	Rich Zdanowicz – EPA	

Welcome and Statement of Purpose (*Pat Garvey, EPA/OEI*)

Thanks were extended to EPA Region V for hosting the meeting.

Exchange Network Nodes were identified as the focus of the meeting was defined. Pat Garvey identified Node 1.0 team members present at this meeting.

An overview of the agenda was presented, with the morning session aimed at establishing an understanding of nodes and the afternoon session targeting the identification of available resources. Questions were encouraged throughout the meeting.

A summary of the Network Knowledge Meeting binder was presented, with special emphasis on the following:

- Section 4 – The presentation by the Node V1.0 team scheduled for the morning.
- Section 6 – Exchange Network Grants Status/Summary: Any state information that is incorrect or different from the regional view should be edited and returned to Pat Garvey.

- Section 10 – Integrated Product Teams (IPTs): The Network Steering Board is closely managing IPTs. Participants are needed from states, regions, CDX, and other areas. To participate or provide input on the necessity of a new team, contact Pat Garvey, Chris Clark, or Molly O’Neil.

Exchange Network Principles and Components (*Molly O’Neill, ECOS, and Pat Garvey, EPA/OEI*)

The stated goal of the presentation was to “get everyone on the same page” and build upon the foundation and shared vision the IMWG which was of an Information Technology (IT) partnership between that EPA and the states. Highlights of the presentation included:

- An overview of the Exchange Network timeline, from the formation of the IMWG in 1998 to the development of the Blueprint in 2000 to the chartering of the Network Steering Board in 2002
- Exchange Network basics – Internet and standards based, XML, partnership-based
- Components of the Network, including Document Exchange Templates and Trading Partner Agreements
- Role of IPTs in developing regulatory flow schemas
- Discussion of organizational structure and roles– IMWG, NSB, IPTs, and others
- NSB management, membership, and responsibilities:
 - Maintain registry; provide communication and outreach; perform oversight of Network implementation
- NSB Workgroups and responsibilities, including Node 1.0, TRG, DET Guidance, and Registry Group
- Year One Milestones from the Implementation Plan

Questions/Discussion

- *What about other agency participation?* The IMWG will discuss this in their Meeting in San Francisco in May. Awareness is building of the option to include other agencies so they can reuse the technology.
- *The NASCIO agenda includes a risk assessment of the Exchange Network. Can you comment on the regional role of Node participation?* The role of the EPA Regions is still being debated. Some feel that the Regions are not Network partners. However, in further discussion, Regions 4, 5, 7, 8 identified a potential need for nodes in each region for geospatial information and other special data collections.

Node Overview Presentation (*Frank Catanese, New Hampshire and David Blocher, Maine*)

The session provided an overview of the node, its benefits, basic operations, uses, protocol, specifications, basic network technologies, and security. The node protocol and specifications define the initial web services, but the list will grow to include other services.

Questions/Discussion

- *If I get your code, can I establish a node quickly (Massachusetts)?* Frank Catanese stated that 100% of the interface with the Internet will work right out of the box, but you will still need to have or establish the backend interface.

A listing was compiled of attending states and their corresponding hardware/software for node construction. In many cases, the middleware is not confirmed but is what is being contemplated or reviewed at this time.

State	Database	Hardware	Middleware
Utah	Oracle 9i	Compaq	Sysbase Powerbuilder
Louisiana	Oracle 8i	Dell (?)	.NET or Oracle 9iAS
Wisconsin	Oracle 8i moving to 9i	IBM Windows 2000 Server	Oracle 9iAS
Georgia	Oracle 8	Sun 250	Oracle 9iAS
Missouri	DB2	Gateway	Websphere
Massachusetts	Oracle 9i	Compaq	BizTalk
South Carolina	Oracle 8i moving to 9i	IBM AIX	Oracle 9iAS
Michigan	SQL Server 2000	Dell PowerEdge	.NET
Illinois	Oracle 8i	Sun	Oracle 9iAS
Rhode Island	Oracle 8i moving to 9i	Dell	BizTalk/Xaware
Ohio	Oracle 8i	?	Oracle 9iAS
Indiana	Oracle 8i moving to 9i	IBM AIX	Oracle 9iAS

Action Item: Andrea Reisser – Compile listing of all states from all three Network Knowledge Meetings and provide it to Molly O’Neill for posting to the Exchange Network website.

Network Security:

CDX will provide authentication and authorization for all network partners through the Network Authentication and Authorization Services (NAAS). States may want or need their own version of NAAS at the state level to manage authentication and authorization for their user community.

A proposed NAAS structure diagram was included in the presentation that depicted an information flow. Rules need to be worked out as flows are developed in a manner that suits both resources and rules.

The presentation also included the advantages and disadvantages of NAAS. Chris Clark stated that XML Signature and XML encryption are currently being evaluated for expanded security options.

The Node 1.0 Group has proposed the creation of a Network Operations Group (NOG) to oversee the staffing and organization of the following activities:

- Flow management guidance
- Protocol and Specification support and guidance
- Assist and support a Network Help Desk

Action Item: Molly O’Neill – Post new and updated slides from the Node presentation including the Security slides to the Exchange Network website.

Questions/Discussion

- *How will authorization be managed?* Authorization will begin with the basic TPA (“I won’t ask if you aren’t expecting me”) error message. The matrix will be jointly managed by EPA and the state. As a point of information, Illinois stated it plans on issuing credentials statewide with its own local service.
- *Is NAAS part of the Registry?* Conceptually, it is part of the web server but for now it is a standalone service being provided by CDX.
- *Will a flow time out if the process takes longer than 15 minutes?* No

Exchange Network Website (*Pat Garvey, EPA/OEI*)

A review of the website and its ease of use and navigation was provided, especially highlighting the Groups area, History, Point of Contacts, Getting Started, and the Calendar.

Questions/Discussion

- *Can we determine where validation should occur for Facility Registry System (FRS) exchanges?* Pat Garvey responded that the Facility ID has nine schema modules. XML validation should occur before it is sent.
- *Tom Aten raised the question of “Does the schema have a field for “the schema has been validated”?* No

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

The first step in establishing a Registry was to conduct a requirements analysis, which revealed that the current marketplace could not fulfill the unique requirements of the Exchange Network. As an interim solution, a combination of the Exchange Network website with the Environmental Data Registry (EDR) is being used to manage version control of XML schemas. At this point, the Exchange Network website is the “official” Registry for the Exchange Network.

The process for submission to the Registry is:

- Supply information to the designated spreadsheet (takes about an hour)
- Submit through Larry Fitzwater (Point of Contact on the Exchange Network website)

The Registry is also intended to manage Web Service Definition Language (WSDL) files, supporting documentation, Simple Object Access Protocol (SOAP), and maybe eventually Universal Description, Discovery, and Integration (UDDI) information. Schema status will be defined and documented.

Harmonization of schema was discussed in detail at the Challenge Grant meeting among the “water” projects. This means checking with existing IPTs, CDX, the EDSC and TRG, along with existing schemas, on the Exchange Network website.

Work is currently being done on developing a process for schema review.

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

Georgia

Status:

- Next project is to share facility data through CDX – high priority
- Building asynchronous node – contractor hired
- Close to NPDES and land application permits implementation
- Currently doing UCMR
- Participant in Beaches project
- “State Enterprise Re-use Architect” working with Environmental agency
- Developing data structures for Storet and Air Quality
- Expecting proposal for Hazardous Waste

Challenges:

- Locating information (lack of a centralized location for all information)
- Accurate assessment of schedule of EPA production schedule

Needs:

- Building blocks for when products are ready for state usage

Key Contact:

Bill Boyd

Wisconsin

Status:

- Planning Node implementation on June 6 for FRS data
- Node will be bi-directional
- Milestones – Having the WI Node up and a signed TPA

Challenges:

- Lack of standards
- Local authentication required (must deal with state process on authentication)
- EPA backend (PCS) not moving quickly ; the state will “hit a brick wall” when they have the DMR data ready and EPA can’t move it from CDX to PCS

Needs:

- Type (platform-specific) Node Group for communications
- Oracle workgroup needed

Key Contact:

Tom Aten

MassachusettsStatus:

- Waiting for 1.0 Node specification to build node
- Most data is in an integrated database, still need to do data cleanup
- Need to leverage on-line reporting form project

Challenges:

- Underestimated the efforts required to build an integrated database
- Banking on reusing the drinking water schema

Needs:

- Listing of vendors who are providing node building services and their points of contact, referrals from states and EPA, and points of contact at states

Key Contact:

Deborah Quinn

IllinoisStatus:

- Waiting for 1.0 Node specification to build node
- Working on infrastructure
- Testing eDMR
- Facing central certificate issue and overlap with NAAS
- Working on on-line submission of eDMR, attaching a certificate, and meeting archiving requirements

Challenges:

- Budget dollars and lack of staff resources

Key Contact:

Dennis Bomke

IndianaStatus:

- Purchased software but hasn't started node development (node timeframe – Spring 2004)
- Wants to modify FRS and integrate with legacy system

Challenges:

- Internal obstacles (budget and lack of staff resources)
- State contracting process

Key Contact:

Cheryl Franklin (Node)

Laurie Beamish (Exchange Network)

South CarolinaStatus:

- Working on the node – hardware is on order
- Working on the eDMR
- EFIS – Phase II
- FRS submittal this summer via the node

Challenges:

- State business rules and issues
- Budget and staffing

Key Contact:

Ann Gunning

Rhode IslandStatus:

- Creating integrated information system
- Working with eDMR group (part of Readiness Grant)
- Accepting eDMR reports through the use of web forms
- Next steps – Cleaning data, and issuing RFP for Node development

Challenges:

- Budget dollars, agency bureaucracy, and lack of staff resources
- Coordination with the Department of Health

Key Contact:

Pam Annarummo

MichiganStatus:

- Lead state on eDMR Challenge Grant Project (9 states participating) for facility to state data flow, with various stages for various states
- Project website (<http://www.statesdx.net>) contains both the Project Strategy document and the Project Plan
- Focus on security technology assessment done prior to node development
- Readiness Grant node development project underway – state to CDX data flow
- Developed eDMR Data Exchange Toolkit
- Trained 200 facilities last week – 2-1/2 day training sessions include how to register, submit data, etc. (participants supply their own laptop PC)

Challenges:

- State to CDX data flow – trying to develop implementation plan with EPA. (Resource issues also hampering EPA)

Key Contact:

Mike Beaulac

MissouriStatus:

- Infrastructure ready to build node
- Applications not ready
- Need to build “State Revolving Fund” model
- Planning 1.0 Node within a year; 1st flow will be FRS followed by Air

Challenges:

- Built silo applications for years, and business issues are difficult regarding integration
- Short on resources due to layoffs, budget problems, etc.

Needs:

- Dollars and staff

Key Contact:

Sandy Smith

UtahStatus:

- Expect to implement FRS flow in mid-May via a node, followed by NEI
- Building generic FRS objects
- Coordinating with other agencies (Dept. of Health)

Challenges:

- Resource dollars and Staff
- Silos

Key Contact:

Ken Elliot

LouisianaStatus:

- Department of Health, Drinking Water – 65% of resources devoted to SDWIS
- Node – Drinking water schema delayed
- Working with Beaches Challenge Grant Project

Challenges:

- Long lead time for RFP
- SDWIS not ready

Key Contact:

Karen Irion

OhioStatus:

- Ethernet upgrade replacement finished
- Expect to implement FRS flow in 2004
- Working with Department of Health
- Beaches Challenge Grant Project – buying hardware and conducting training

Needs:

- Node Boot Camp

Key Contact:

Adele Vogelgesang

Action Items

Molly O'Neill:

- *Provide vendor information and points-of-contact to Massachusetts.*
- *Place a link on the Exchange Network website to the eDMR Challenge Grant Project website.*
- *Post the eDMR Data Exchange Toolkit on the Exchange Network website.*

Michigan:

- *Prepare a short write-up on the rollout of the facility to state system and the associated training for submission to the CIO Newsletter (EPA).*

2002 Challenge Grants

1. eDMR
 - Michigan and Florida will be the first states to implement the eDMR data flows.
 - John Coates is the Florida contact.
2. Water Quality (Northwest Water Monitoring)
 - Oregon is the lead
 - Slow to start due to organization and resource issues, and number of players.
 - Subset of Storet data
3. Lab Services
 - Lead states – New Hampshire and New Jersey
 - Grant focus on drinking water
 - Challenging because of coordination of data standards with EDWR, SDWIS, UCMR, SDWARS, and Office of Water (OW)
 - Schema customization required
 - Majority of states are not SDWIS states (New Jersey is)

Action Item:

Molly O'Neill – Facilitate hook-up of Georgia, New Hampshire, and Louisiana for LIMS to SDWIS collection.

4. RCRA/NEI
 - Lead States – Mississippi and New Mexico
 - RCRA
 - Lead State – Mississippi
 - Wants CDX to accept flat files
 - Three of five RCRA information modules have draft schemas.
 - OSWER short on resources so schedule is slipping – moving to August 2004 unless additional resources are provided.
 - NEI – V3.0
 - Lead State – New Mexico
 - Flat file done and CDX is validating schema file.
 - Likely an early success story for the node and the Network.
 - Hope to flow data this summer – will need to do data cleanup before posting to Envirofacts.

5. Beaches (subset of Storet)

- Lead State – New Jersey
- Event data flows expected by a late May date, followed by monitoring data flows
- Delaware will be the first state node to pilot with the CDX node.

2003 Grant Process (*Pat Garvey*)

Over 100 proposals totaling \$57 million have been submitted. The proposal evaluation and recommendation process will begin on April 23. Kim Nelson, EPA CIO, will begin to make final award decisions in mid-May with rolling announcements. Pat Garvey introduced Mark Luttner (EPA) at this time.

Trading Partner Agreements (TPAs) (*Molly O’Neill*)

Formal published guidelines are not available, but the process will be driven by “doing” and using the examples that have been posted to the Exchange Network website. One of the most important parts of a TPA is the attachment or appendix that contains the data elements and definitions for mapping purposes.

States were asked what their TPA experience has been thus far and if any impediments have surfaced.

- Wisconsin: Did a “Search/Replace” with their state name in the existing model and added frequency and a few other items
- South Carolina: Who will sign the TPA will be an issue
- Georgia: Need to work through data element matching with EPA
- Rhode Island – Doing data clean-up in order to do data mapping
- New York and New Jersey: FRS/TPAs are just days/weeks away – hope to have 10 TPAs in place by July 4, 2003

FRS is working with 11 states on TPAs, but only five TPAs are in process. Thus, the TPA can come before or after test data flows.

Questions/Answers and Comments

- *Michigan: What is the value of a TPA for the eDMR Project?* Pat Garvey: A TPA can be used to encourage the schedule process. Sandy Smith (Missouri) commented that just the discussion of a possible TPA led to engagement by state management and a push for system integration. It also served to elevate the importance of data stewardship.
- *Is there an NEI TPA model?* Contact Chuck Freeman at EPA OEI for NEI information.

Future Grant Guidance Suggestions

- Focus on other group access, as well as public access

- Establish partnerships with EPA Program Offices to work on schedule
- Move One-Stop Grant dollars to Network Support to form a type of “trust” for network services
- Identify a critical mass of states to “request” modernized EPA systems – states should support the identification/creation of solutions
- Investigate how to leverage node services for other state electronic services
- Consider hazardous waste manifest data as a focus of automation

Closing Meeting Feedback

- Thanks were extended to Frank Catanese and Dave Blocher for the Node presentation, attending tribes, EPA Region V for meeting planning, and Molly O’Neill for state support. And a big thanks was extended ECOS for dollars for support of state travel.
- Wisconsin: Expressed a need for platform-specific issue identification and resolution.
- ECOS: Also, there is a need for specific data flow issue identification and resolution.
- The general consensus was that the Node Knowledge calls were good, but this meeting is better and it should occur at least once per year.
- The Node “Boot Camp” may need a segment included to cover platform-specific issues.