



Exchange Network Transitions

Region 1, 2, & 3 Exchange Network Meeting

April 10, 2013

Topics to Cover

- Transitioning from Phase 1 to Phase 2
- What is the Phase 2 Plan?
- What are its goals?
- EN governance changes
- Recent Phase 2 initiatives
 - REST web services guidance
 - Institutional Controls exchange
- Discussion and questions

Phase 2 Background

- Phase 1 emphasized 10 National Priority data flows
 - AQS, Facility ID, WQX, EIS, ICIS-NPDES, TRI, Beaches, UIC, SDWIS, RCRAInfo
- Phase 2 will build on our success to create a Network that enables partners to find, integrate, and use data to better understand, manage, and protect human health and the environment.

Goal 1

The Exchange Network Becomes Increasingly Usable, Efficient, and Sustainable.

- Manage the Improvement of Existing Data Flows to Improve Usability, Efficiency, and Consistency with the Network Vision.
- Develop New National Data Flows that Serve the Needs of Network Users.
- Participate in efforts to improve the electronic collection and management of environmental data.
- Track and Adopt New Technologies and Processes that will Benefit Partners.
- Increase Partners' Technical Capacity to Implement, Operate, and Maintain Exchange Network Tools and Services.

Goal 2

The Exchange Network Becomes Increasingly Relevant and Valuable to a Broadening Community of Partners and Consumers.

- Create Relationships with New Partners and Consumers that Will Broaden the Network Community and Expand Information Sharing.
- Create an Outreach and Marketing Strategy to Increase the Network's Relevance, Value, and Support among Partners and Consumers.
- Strengthen Partnerships with Tribes and Identify Opportunities for Increased Participation.

Goal 3

The Network Enables Better Decisions Through Timely, Accessible, and Useful Environmental Information.

- Convene Teams to Develop Data Sharing Solutions That Serve the Needs of EN Partners and Consumers
- Document Business Requirements and Build Publishing Services
- Assist Partners in Implementing and Maintaining Publishing Services
- Support the Development of Tools that Promote Easier Discovery, Integration, and Use of Environmental Data

Goal 4

The Exchange Network and its Partners Have Adequate Resources for Implementation, Operations, and Maintenance.

- Secure Resources for Near-term Investment in Phase 2 Priorities
- Develop a Comprehensive Grants Strategy Aimed at Effectively Targeting Available Funding
- Cultivate Long-term Sources of Funding to Assure the Sustainability of the Network

Next Steps

- Finish collecting and incorporating input from Network partners
- Finalize and publish the Phase 2 Plan in April 2013
- Prioritize activities and develop 2013 – 2014 work plans for EN governance and staff
- Get to work!

Phase 2 Task Force Members

Mike Beaulac, Michigan Department of Environmental Quality

Ken Blumberg, U.S. Environmental Protection Agency – Region 1

Glen Carr, Oregon Department of Environmental Quality

Chuck Freeman, U.S. Environmental Protection Agency

Robert Holden, National Congress of American Indians

Jonathan Jacobson, U.S. Environmental Protection Agency (Co-chair)

Bruce Jones, Northwest Indian Fisheries Commission

Alison Kittle, U.S. Environmental Protection Agency

Dennis Murphy, Delaware Department of Natural Resources and Env. Control

Steve Newman, U.S. Environmental Protection Agency

Andrew Putnam, Colorado Department of Public Health and Environment (Co-chair)

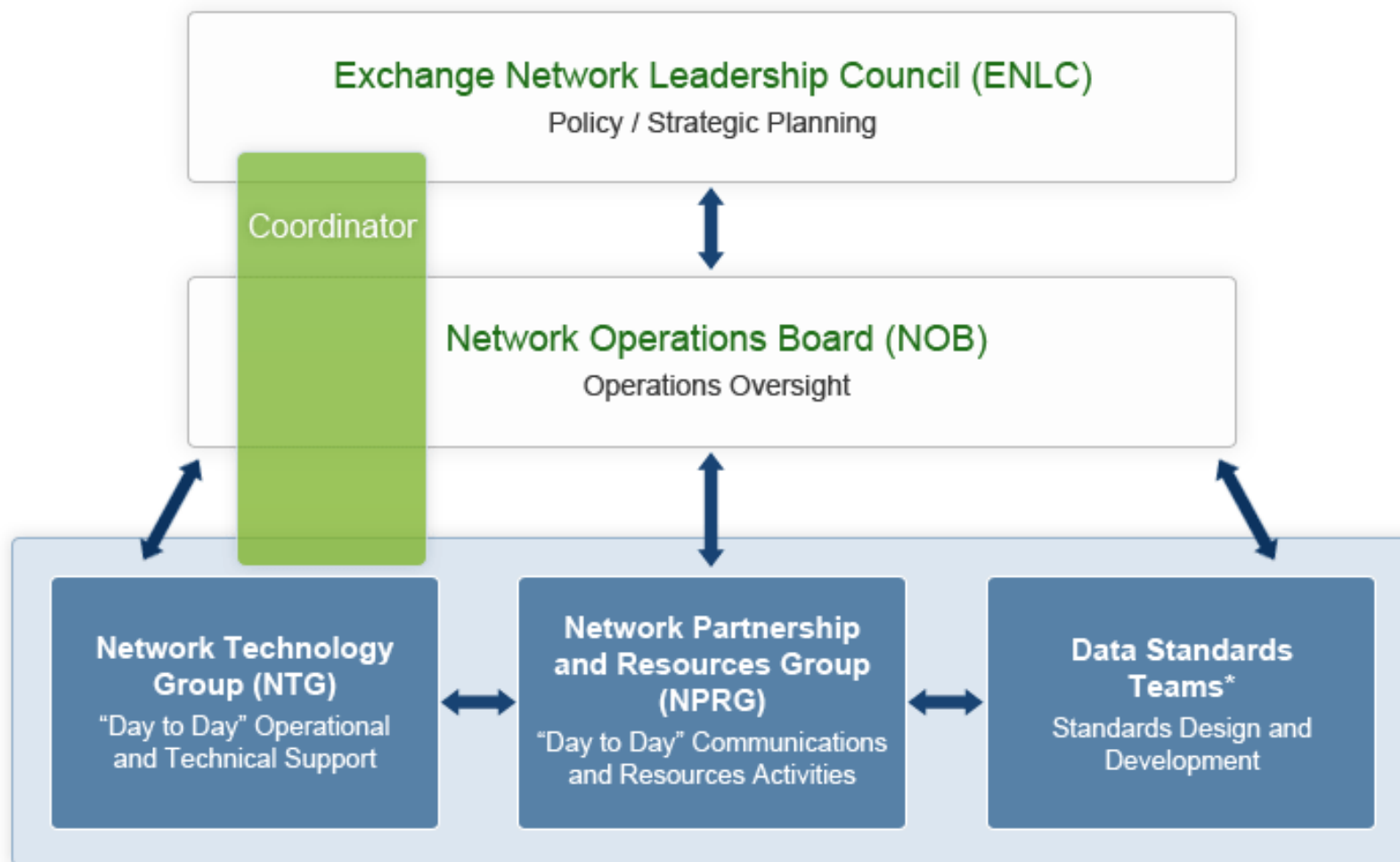
Chris Simmers, New Hampshire Department of Environmental Services

Joe Wilson, U.S. Environmental Protection Agency

Dwane Young, U.S. Environmental Protection Agency

EN Governance Changes

ENLC asked the Phase 2 Task Force to evaluate the Network's current governance structure



*Example Sub-Groups

EN Governance Changes

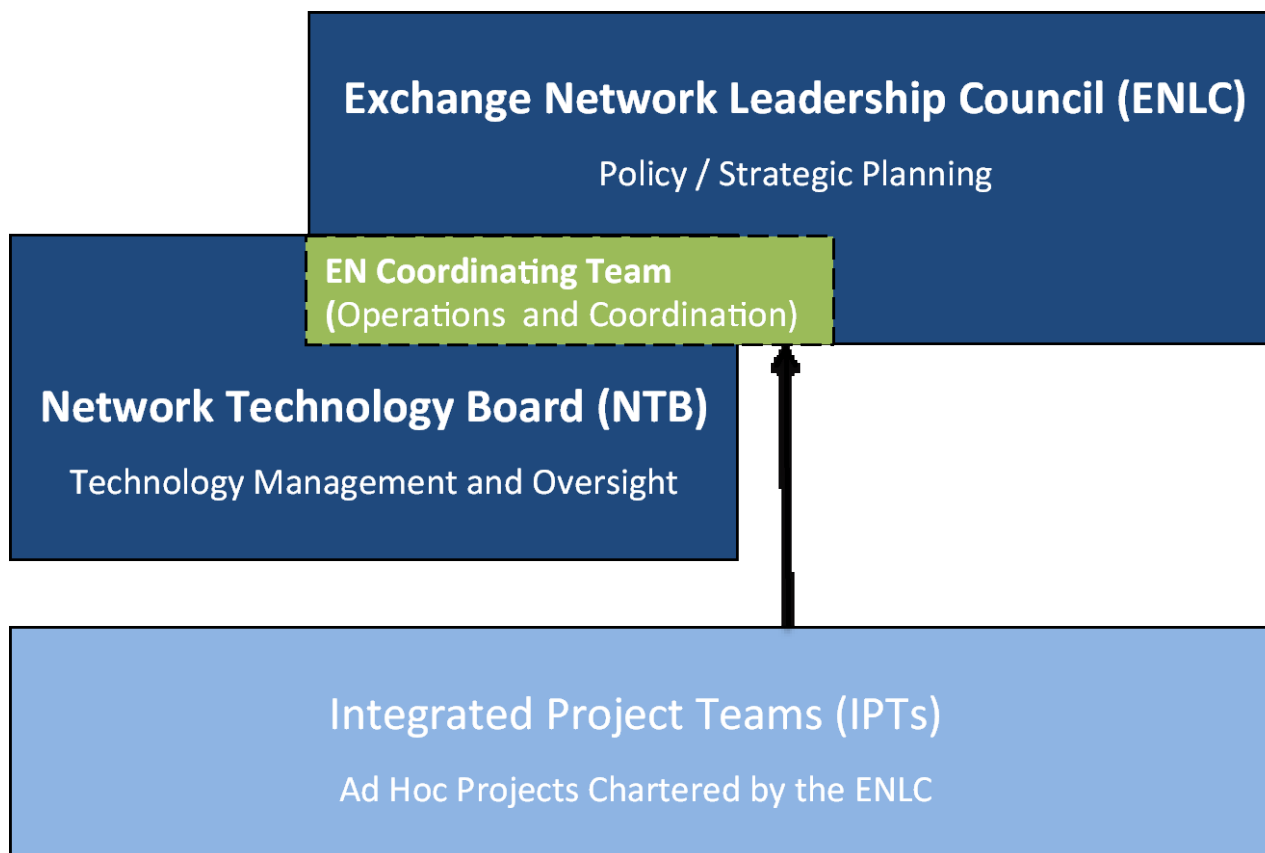
The Task Force's recommended changes will:

- More closely align the governance with the Network's operational needs and work patterns;
- Address concerns about member workload and sustainability;
- Expand the governance's connectivity to new communities; and
- Offer more opportunities for direct Partner participation.

Governance Recommendations

1. Ensure that the membership of the ENLC adequately reflects the composition of the Network community and includes members with skill sets to provide the Network with strategic direction, executive management support, and growth opportunities.
2. Sunset the Network Operations Board and create an ENLC Coordinating Team to manage the day-to-day operations of the Exchange Network.
3. Recast the Network Technology Group as a Network Technology Board with responsibility for managing the technological standards, shared infrastructure, and shared tools of the Network.
4. Sunset the NPRG, assign day-to-day communication responsibilities to staff, and charter an IPT to create an outreach and marketing strategy.
5. Charter Integrated Project Teams with responsibility for creating specific EN work products.

New EN Governance Structure



RESTful web services

- What are they?
- Why are we talking about them?
- What's in the new EN REST guidance document?
- How will we use it?
 - Institutional Controls example
 - Support in Node products
- Open Call

RESTful web services

Typical Exchange Network web services are based on a technology called Simple Object Access Protocol.

1. Submit – Used for sending data to another Partner’s Node
 - Great for database synchronization and large payloads of data
 - Used by most regulatory data flows to EPA
2. Query/Solicit – Allows other Network partners to call your Node and access your data.
 - Used to support data publishing or the “come and get it” approach to data sharing
 - Examples: Facility 3.0, Homeland Emergency Response Exchange, NJ Drinking Water data
 - Query typically used for smaller data sets

RESTful web services

REST web services are a different animal.

- REST isn't a technology. It's a design style.
- Uses standard internet HTTP protocols
- Resources or data are represented by a URL and then transferred to a requester.
- Or in other words: click URL, get data

Example URL

<http://qwwwebservices.usgs.gov/Station/search?countycode=3A109&characteristicName=pH&format=xml>

Who cares? Why are we talking about this?

- REST services are relatively simple to use when they are well documented
- No special software (Node or Node Client) required to get data
- Simplicity may help further the EN's Phase 2 goal to expand data publishing and make data more usable.

REST services will compliment, not replace, existing EN services and data flows!

RESTful web services

Exchange Network REST Guidance available at
<http://www.exchangenetwork.net/rest-guidance>

Sections:

1. Background on REST and potential benefits
2. When to consider using it
3. Standard URL formatting rules to encourage consistency
4. Standards for documenting REST services
5. Instructions on registering services in EN Discovery Service
6. Information about EPA's REST Proxy service

Institutional Controls Exchange

- Ohio, Indiana, ECOS, and Terradex developing a data exchange for sharing institutional controls data
- Goal is to develop a standard schema and set of services for publishing IC information for use by local governments, planners, excavators, and other stakeholders
- Should have draft schema and Flow Configuration Document available in May or June
- Offers a nice fit for RESTful approach because data sets are fairly simple and fully public
- Will hold an Open Call this Summer to help publicize and attract other participants

Questions or Comments?

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