OpenNode2

What's New with OpenNode2

Exchange Network National Conference
2/27/2014

Environmental Information
exchange
Network

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Agenda

- Overview
- What's New
    - Moving to SourceForge
    - New and Improved Plugins
    - REST Support
- New/Planned Features
- Questions

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Current Deployments

Over 40 states, tribes, territories and non-profits use
OpenNode2

- Alaska DEC
- Arizona DEQ
- California EPA
- Colorado DPHE
- Connecticut DEP
- Florida DEP
- Georgia DNR
- Guam EPA
- Hawaii DOH
- Idaho DWR
- Indiana DEM
- Kansas DHE

- Michigan DEQ
- Minnesota PCA
- Montana DEQ
- Nebraska DEQ
- Nevada DEP
- New Hampshire DES
- New Mexico ED
- North Carolina DENR
- North Dakota DOH
- Northern Mariana Islands
- New York DEC

- NWIFC
- Ohio EPA
- Oregon DEQ
- Penobscot Indian Nation
- Seldovia Tribe
- Stillaguamish Tribe
- USET
- USGS Denver
- Vermont DEC
- Washington Ecology
- Wyoming DEQ
- …

Plugins

- **Altova MapForce Bridge v1.0**
- **AQS v2.2a** - Air Quality System (DrDas and Agilaire AirVision)
- **BEACHES v2.2** - Beach Notification
- **EIS v1.2** - Emissions Inventory System
- **EMTS v1.0** – EPA Moderated Transaction System
- **FacID v3.0** – Facility Identification - Facility Registry System
- **HERE v2.0** - Homeland Emergency Response Exchange

- **ICIS –NPDES v4.0**
- **OWIR-ATT v2.0** – ATTAINS
- **P2R** – Pollution Prevention
- **PNWWQX** – Pacific NW Water Quality Exchange
- **RCRA v5.2** - RCRAInfo
- **TRI v5.0**- Toxic Release Inventory
- **SDWIS v2.0** – Safe Drinking Water Information System
- **UIC v2.0** – Underground Injection Control (pending)
- **WQX v2.0** - Water Quality Exchange
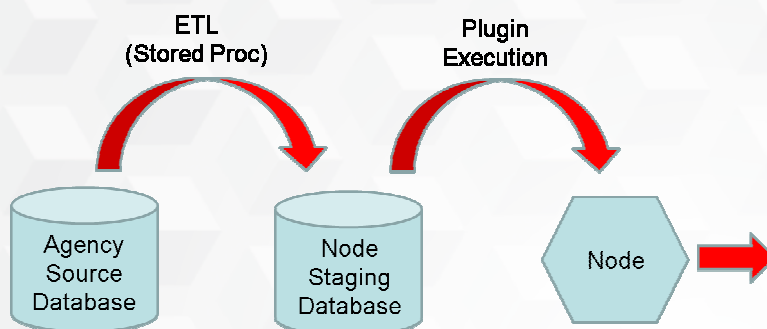
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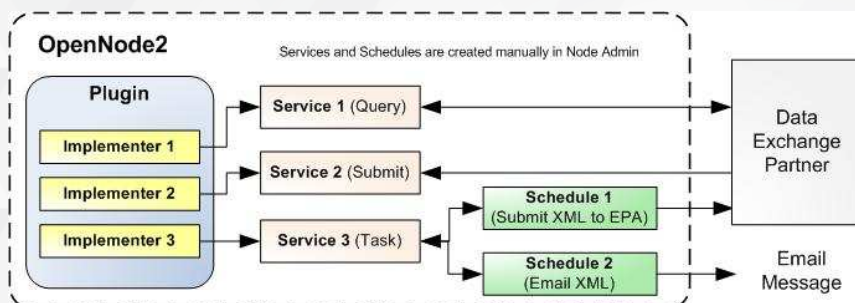
Free Support!

- Limited support is available to assist OpenNode2 implementers with questions or challenges.
- Support is limited to 4 hours and must be approved by ECOS.
- Email Windsor Solutions at opennode2@windsorsolutions.com or contact Greg McNelly at ECOS.

Plugin Staging Tables

Plugin Architecture

OpenNode2 Source Code Hosting

- Moved from Google Code to SourceForge
- http://sourceforge.net/projects/opennode2/
- Plugins are now bundled together in a single download
  - It was getting out of hand
  - .NET: Bundled with OpenNode2 installation files
  - Java: Plugin Bundle is a separate download from OpenNode2 installation files
- Installation Guides are still separate

Updated Look

.NET OpenNode2 Updates

- New! Configure Endpoint Users
  - Allows for configuring different NAAS Accounts to be used for different operations

Java OpenNode2 Updates

- Plugin "Heartbeat" added to dashboard

OpenNode2 Heartbeat
These are your endpoints and their status.
- ✓ v1.1: https://ganode.windsorcloud.com/wne/services/v11
- ✓ v2.1: https://ganode.windsorcloud.com/wne2/services/v21
- ❗ REST:
https://ganode.windsorcloud.com/wnrest/services/{Query}

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Java OpenNode2 Updates (cont'd)

- Integrated Plugin Help
  - Each flow and service has integrated descriptions
  - Pre-population of Schedule Parameters

Service:
EISGetPointEmissions

Arguments (Arguments in **bold** are required by the service)

Emissions Year: 2012 ❓
Used to provide the year for which the emissions data is being submitted. Format YYYY. This will be used, along with the relevant data category for the data service, to filter data to be extracted from the staging database.

Submission Type: Production ❓
Allows the user to specify whether the XML file resulting from the data service execution should be submitted to the EIS Production or Quality Assurance environment. Accepted values: Production or QA.

Contributions from the Community

- Florida DEP created a custom AQS plugin for Java OpenNode2, now available for other states
- Iowa DEP created a query service for .NET AQS Exchange, being incorporated into plugin

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ICIS-NPDES Implementation Projects

Full Implementations
- California SWRCB
- Iowa DNR
- Georgia EPD
- Hawaii DOH
- Nevada EPD
- Vermont DEC
- Washington Ecology
- Wyoming DEQ

ICIS Implementation Support
- Arizona DEQ
- Indiana DEM
- North Dakota DEQ
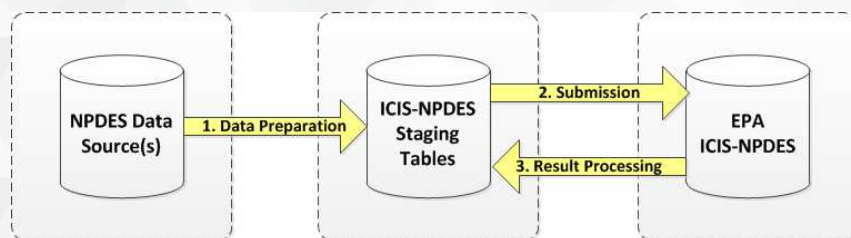- North Carolina DNR
- Virginia DEQ
- West Virginia DEQ

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The ICIS-NPDES Data Flow

- The ICIS-NPDES Full Batch flow is complex
  - **46** data families
  - **1195** data points
  - **963** business rules
- The proposed EPA e-Reporting Rule will make >400 data points mandatory to transmit to EPA
  - EPA will need to enhance the existing schema to support additional data points

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How the ICIS-NPDES Flow Works

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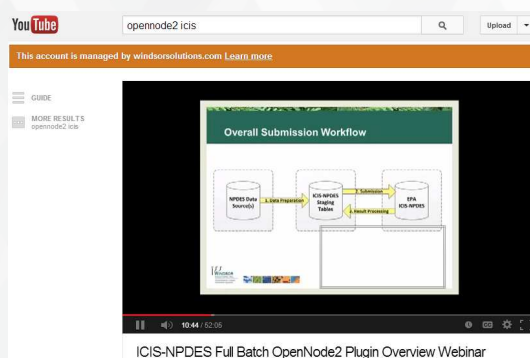WINDSOR SOLUTIONS | Environmental + Health Information Systems

ICIS-NPDES – Upcoming Change!

- New Mandatory Compliance Monitoring Identifier
  - New field to schema
  - Old Business Key:
    - Permit Identifier
    - Compliance Monitoring Identifier
    - Compliance Monitoring Date
  - New Business Key:
    - Compliance Monitoring Identifier
- Updated Plugin to be Released in Early April

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OpenNode2 ICIS Webinar on YouTube

- http://www.youtube.com/watch?v=7qP2d6CUyps

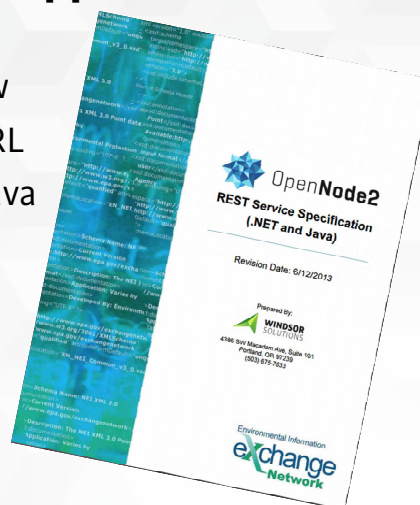OpenNode2   WINDSOR SOLUTIONS | Environmental + Health Information Systems

Institutional Controls (IC) Data Flow

- Ohio EPA received a grant to implement the IC flow but…it didn't exist!
- Windsor led an IPT to finish defining the XML Schema and Services (FCD)
- FCD/Schema Published to EN.NET April 2013
  - http://www.exchangenetwork.net/data-exchange/ic/
- Java plugin developed and implemented October 2013
- Pilot Project of the Java OpenNode2 REST Endpoint

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REST Support

- Any Query Service is now available as a RESTful URL
- Implemented on both Java and .NET OpenNode2
- Published OpenNode2 REST Specification to SourceForge

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REST Support (Cont'd)

URL Format:
- NodeURL/RestEndpoint/Query?Dataflow=*dataflow* &Request=*request*[&Username=*username* &Password=*password*][&token=*token*][&ZipResults =*TrueOrFalse*][&Params=*params*]

- DEMO – FacID Query

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In Development

- Next Java OpenNode2 release (v2.10) will have the following improvements
  - classloader re-use, prevent memory leaks
  - JDBC connection pool upgrade to take advantage of multithreaded processors
  - Bug fixes

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On the Drawing Board

- Public REST queries
  - No authentication required!
  - Requested by Ohio EPA and Virginia DEQ
- Self-description of RESTful services
  - Node will publish a web page listing the RESTful URLs, parameters, and example syntax

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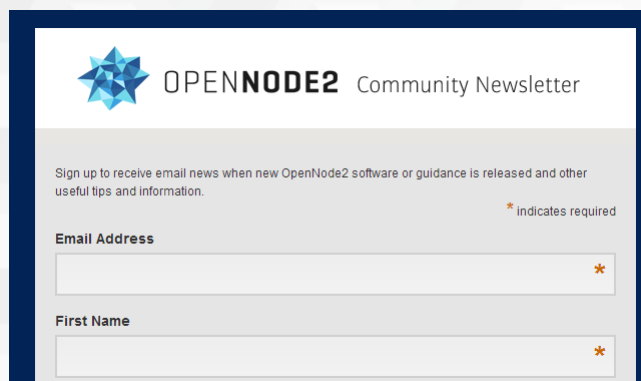WINDSOR SOLUTIONS | Environmental + Health Information Systems

ICIS-Air Exchange

- Windsor is contracted with Nebraska DEQ to develop the flow
- Multiple states interested in Java version, negotiations ongoing
- Will be modeled after the highly successful ICIS-NPDES flow
- EPA/ECOS will likely be providing funding to support OpenNode2 ICIS-Air implementations
- Very tight timeline – October 2014 in production!

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OpenNode2 Newsletter

- http://eepurl.com/mB3gz

Questions?