



# OpenNode2

## HERE 2.0 Data Exchange Implementation Guide (Java)

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Environmental Information

**exchange**  
**Network**



## Revision History

Date	Author	Changes	Version
9/30/2009	Windsor	Initial version.	1.0
10/12/2009	Windsor	Minor revision to section on creating the HERE data exchanges.	1.1
10/26/2009	Windsor	Removed references to HERE-SDWIS service.	1.2
4/15/2013	Windsor	Revised to update for Java only.	1.3



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# Data Exchange Overview

The purpose of this document is to provide detailed instructions for the installation and configuration of the Exchange Network Homeland Emergency Response Exchange (HERE) data exchange on the Java implementation of the Exchange Network OpenNode2 (OpenNode2).

The HERE data exchange offers eight different “sub-flows” with related data services used primarily to serve XML data to emergency responders utilizing the HERE Client. Of these exchanges, only the HERE exchange is required; all others are optional.

Exchange Name	Description
<b>HERE</b>	Contains services that manage the HERE flow and provide optional lookup code information.
<b>HERE-CAFO</b>	Contains a service for creating files containing Confined Animal Feeding Operation (CAFO) detail data.
<b>HERE-FACID</b>	Contains a service for creating files containing Facility and Environmental Interest data.
<b>HERE-DELETE</b>	Contains a service for creating files containing facilities that have been deleted.
<b>HERE-TANKS</b>	Contains a service for creating files containing Above-ground and Underground Storage Tanks detail data.
<b>HERE-TIER2</b>	Contains a service for creating files containing Tier 2 (chemical storage) detail data.
<b>SDWIS</b>	Contains a service for making the SDWIS Inventory XML file available to the HERE Exchange (.NET only) and forwarding the Inventory file to CDX.

Further detail about the HERE Project and Client is available at <http://herenetwork.org/>. Further information about the HERE data exchange is available in the Flow Configuration Document (FCD) published at [exchangenetwork.net](http://exchangenetwork.net).

The HERE data exchange configuration process involves two main steps:

1. Create and populate the HERE staging tables.
2. Install and configure the HERE data flow.

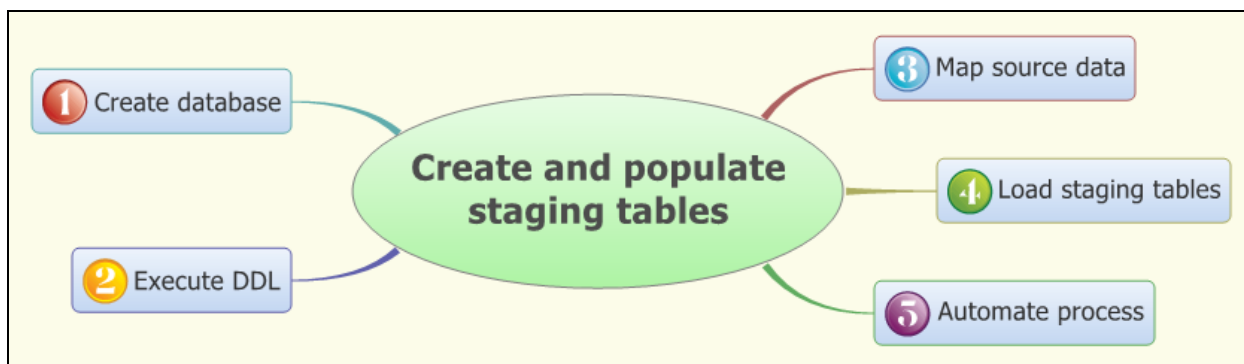
The rest of this document will describe these two processes in detail.

*NOTE: The data services require that OpenNode2 version 1.1.9 or later is used.*

## Create and Populate the HERE Staging Database

OpenNode2 uses a plugin-based architecture to support data exchanges with EPA and other Exchange Network partners. Data must first be loaded into a set of staging tables before it can be extracted by the plugin and shared through the HERE data exchange. This section outlines the steps required to set up the HERE data exchange database staging tables.

The following figure illustrates these steps:



1. The first step is to create the staging database itself if one has not already been established to support another data exchange (typically named HERE\_FLOW).
2. Once the staging database itself is created, a Database Definition Language (DDL) script included in the OpenNode2 deployment package can be executed to create the staging tables themselves that will be used to store the data being made available through the HERE data exchange.
3. With the staging environment established, data must now be mapped from the source database to the equivalent fields in the HERE staging tables. The staging tables closely reflect the structure and naming of the XML schemas used to support the HERE exchange (see below for details).
4. Once the mapping is complete, a database routine should be developed to populate the tables in the staging database using the mapping prepared during the earlier step. This should be a repeatable process that will empty and replace all of the data in the staging tables, or a procedure that will incrementally add, update and remove data as it changes in the source system.



- In addition to populating the staging tables for the various flows, the CHANGED\_FACILITIES table must be loaded. This table contains 4 columns: ST\_FAC\_IND, FLOW\_TYPE, IS\_DELETED, and UPDATE\_DATE. The ST\_FAC\_IND column must contain the facility identifier from the staging database table related to the flow:

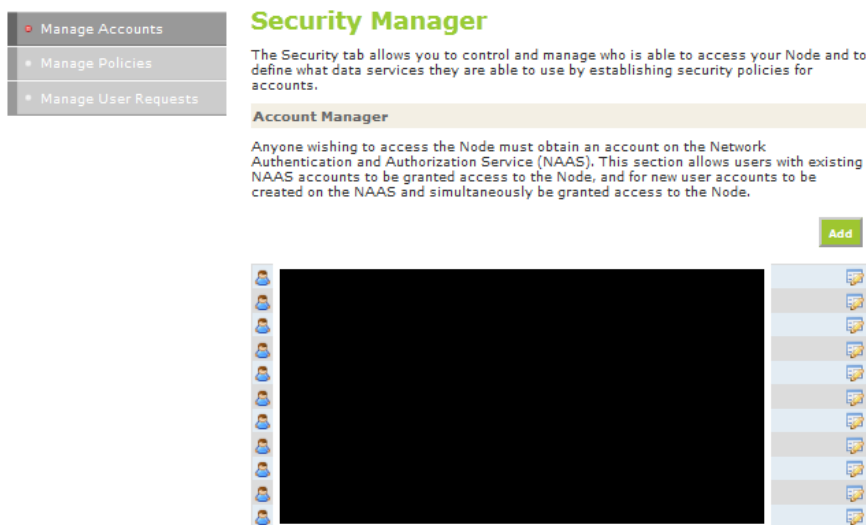
FLOW_TYPE <sup>1</sup>	ST_FAC_IND Source
HERE-CAFO	CAFO_FAC.FACILITYREGISTRYID
HERE-FACID	FACID_FAC.FAC_SITE_IDEN_VAL
HERE-TANKS	TANKS_FAC_SITE.FAC_SITE_IDEN
HERE-TIER2	T2_REPORT.ReportIdentifier

**The UPDATE\_DATE should be set to the current date. As facilities are modified in the source system, the UPDATE\_DATE should be set to the date when that facility was updated for use in generating incremental change XML files (see “Setup Flow Security Permissions**

The HERE data exchange allows for setting each of the data flows as “protected.” This allows for tight control over who can access what data.

## Add Flows to an Existing User

- To define the security for a given user, click the **Security** tab (user email accounts blanked in the below example):



- Select a user’s account by clicking the icon next to their NAAS account.

<sup>1</sup> The HERE-DELETE and SDWIS flow types are not listed because they are not assembled in the HERE staging database.

## Security Manager

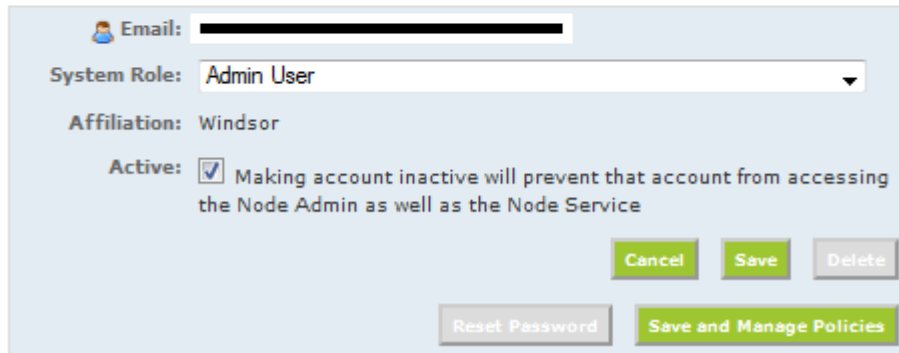
The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### WINDSOR Account Editor

User accounts will be managed simultaneously for the Node and within NAAS. A user account will be one of three types:

Please see the Node Admin User Guide for a detailed explanation of roles.

**Warning:** NAAS modifications disabled. Account not affiliated with the local Node: WINDSOR.



Email: [Redacted]

System Role: Admin User

Affiliation: Windsor

Active: ☒ Making account inactive will prevent that account from accessing the Node Admin as well as the Node Service

Buttons: Cancel, Save, Delete, Reset Password, Save and Manage Policies

3. Click **Save and Manage Policies** to view the current policies for this account.

- Manage Accounts
- **Manage Policies**
- Manage User Requests

## Security Manager

The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### Account Policy Manager

Policies may be defined for each user account, and determine which data services the account holder may access. Policies defined in this section will be created on the NAAS as well as the Node.

**Affiliate:** Windsor

Indicates a protected flow. The checkbox is available if access to this flow requires a specific policy. Otherwise, only a valid, authenticated token is required.

Flows Access:	
AQS	<input type="checkbox"/>
BEACHES	<input type="checkbox"/>
ENDS2	<input type="checkbox"/>
FacID_v3.0	<input type="checkbox"/>
FRS	<input type="checkbox"/>
GWDX_DW	<input type="checkbox"/>
HERE	<input type="checkbox"/>
HERE-FACID	<input type="checkbox"/>
HERE-TIER2	<input type="checkbox"/>
ICIS-NPDES	<input type="checkbox"/>
NCT	<input type="checkbox"/>
RCRA	<input type="checkbox"/>
SDWIS	<input type="checkbox"/>
TRI	<input type="checkbox"/>
Windsor	<input type="checkbox"/>
WQX	<input type="checkbox"/>

**Edit Local Role** **Cancel** **Save**

4. Check the box to assign permissions for each flow to that user.
5. When finished, click **Save**.

## Manage User Requests

Users of the HERE Client can request access to the flows by submitting a request to your Node using the HERE Client itself. These requests are available by clicking the **Manage User Requests** button in the **Security** section. Each request includes the name of the requestor, their affiliated State and organization, their contact email address, phone number, and a stated purpose as to why they are requesting access to the available flows.

- Manage Accounts
- Manage Policies
- Manage User Requests

## Security Manager

The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### Manage User Authorization Requests

The User Authorization Request Manager allows you to manage pending user requests for access to protected flows on this Node.

TK Conrad	(tkconrad@gmail.com)	Requested: 04/01/2013
Affiliated State: [REDACTED] Organization: [REDACTED] Contact Email: [REDACTED] Contact Phone #: [REDACTED] Request Purpose: Test Requested Flows: Comments: <input type="text"/>		
		<input type="button" value="Accept"/> <input type="button" value="Reject"/>

TK Conrad	(tkconrad@msn.com)	Requested: 04/01/2013
Affiliated State: [REDACTED] Organization: [REDACTED] Contact Email: [REDACTED] Contact Phone #: [REDACTED] Request Purpose: Test Requested Flows: Comments: <input type="text"/>		
		<input type="button" value="Accept"/> <input type="button" value="Reject"/>

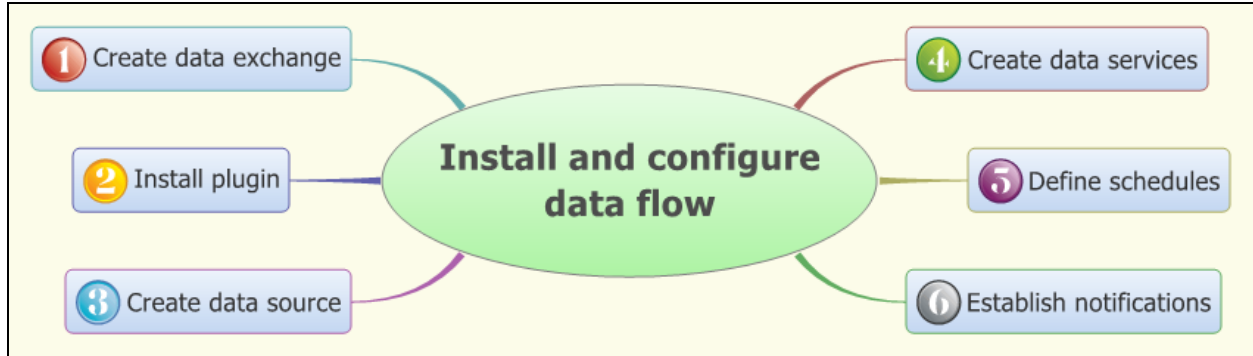
1. In the **Requested Flows** section, check the **Allow** checkbox next to each flow being granted to the user.
2. In the **Comments** section, enter an optional comment to be sent to the user making the request.
3. Depending upon whether you accept or reject this request, click the **Accept** or **Reject** button. A notification email will be sent to the user in question, and the user's permissions will be automatically updated to reflect your settings.

Define Data Exchange Schedules"). Also, as facilities are deleted from the source system, the IS\_DELETED flag should be set to True.

6. Once the data extract process has been developed, it should be automated to execute on a regular schedule as appropriate to the needs of the organization for generation of XML files.

# Install and Configure the HERE Data Flow

This section describes the steps required to install and configure the HERE data exchange on the Java implementation of the OpenNode2 using the Node Administration Web application (Node Admin).



## Create the HERE Data Source Definitions

The first step is to create the data source definitions used to define how the Node will connect to the staging database.

1. After logging into the Node Admin, click the **Configuration** tab on the top navigation bar.
2. Click the **Data Sources** tab along the left-hand side of the screen. The existing data sources will be displayed:

- Global Arguments
- Data Sources**
- Network Partners

### Node Configuration Manager

The Configuration tab allows you to manage certain key parameters which are used by the Node to support the operation of the data services provided by the Node. It allows for these key parameters to be managed in only one single place even if the specific parameter is used by multiple data services.

Since the parameters that can be managed here will be used by many data services care should be taken when editing these values with caution as changes will have global impact.

#### Data Sources

Data sources provide data services with the information needed to establish a connection to a particular database, or other type of data source, for the purpose of obtaining data to return to a requesting partner. A single data source may provide the data to support multiple data services.

This section allows you to create, modify and delete these data sources.

[Add Data Source](#)

<b>BeachesTest:</b>	com.microsoft.sqlserver.jdbc.SQLServerDriver	
<b>DEMO:</b>	com.microsoft.sqlserver.jdbc.SQLServerDriver	
<b>FacID MN Staging on ORA2:</b>	oracle.jdbc.OracleDriver	
<b>FacId NH Staging on ORA2:</b>	oracle.jdbc.OracleDriver	
<b>FacId3 NODE_FLOW_OH:</b>	oracle.jdbc.OracleDriver	
<b>GA_QA_CLOUD:</b>	com.mysql.jdbc.Driver	
<b>HERE_FLOW_FACID_NE:</b>	com.microsoft.sqlserver.jdbc.SQLServerDriver	
<b>ICS_FLOW_LOCAL_JAVA:</b>	oracle.jdbc.OracleDriver	
<b>ICS_FLOW_LOCAL_VA:</b>	oracle.jdbc.OracleDriver	
<b>mysql_ga_ics_flow_local:</b>	com.mysql.jdbc.Driver	

3. Click the **Add Data Source** button.

**Node Configuration Manager**

**Data Sources**

Data sources provide data services with the information needed to establish a connection to a particular database, or other type of data source, for the purpose of obtaining data to return to a requesting partner. A single data source may provide the data to support multiple data services.

This section allows you to create, modify and delete these data sources.

**Name:** HERE\_FLOW

**Provider:** com.microsoft.sqlserver.jdbc.SQLServerDriver

**Connection:** jdbc:sqlserver://SQLDEV; databaseName=HERE\_FLOW\_FACID; user=nodeuser; password=password;

**Check Connection** **Cancel** **Save** **Delete**

4. Type a descriptive name in the **Name** field (e.g., “HERE\_FLOW”).
5. Depending upon the database platform for the HERE staging database, select the appropriate provider in the **Provider** drop-down control.
6. Type a connection string in the **Connection** field.

## Create the HERE Data Exchanges

The next step is to create the exchanges using the OpenNode2 Node Admin Web application. The HERE Exchange consists of the following component exchanges:

- HERE
- HERE-CAFO
- HERE-FACID
- HERE-DELETE
- HERE-TANKS
- HERE-TIER2
- SDWIS

Of these, only the HERE exchange is required; all others are optional.

The following uses the setup of the HERE Exchange as an example.

1. Click the **Exchange** tab on the top navigation bar.
2. Click the **Add Exchange** button. The Manage Data Exchange screen will be displayed as follows:

The screenshot shows the 'Data Exchange Manager' interface. On the left is a navigation bar with 'Manage Exchanges' (selected) and 'Upload Plugin'. The main area is titled 'Manage Data Exchange' and contains a description: 'This page allows you to configure or add new data flows. You must define a data flow before you will be able to create a data service for that flow.' Below this is a form with the following fields:

- Name:** Text input field containing 'HERE'.
- Contact:** Drop-down menu showing 'nodeadmin@windsorsolutions.com'.
- Web Info:** Text input field containing 'http://www.exchangenetwork.net/eschanges/cross/here.htm'.
- Protected:** A checked checkbox with the label 'Setting default flow security will require a specific policy for all flow related requests (Query, Solicit, Download etc.)'.

At the bottom right of the form are two buttons: 'Cancel' and 'Save'.

3. Type "HERE" in the **Name** field.
4. Select a user account name from the **Contact** drop down box. Contacts are populated with all accounts that have been set up on the Node 2008. See the **Security** tab for a list of available accounts.
5. In the **Web Info** field, enter a URL where more information can be found about the exchange. It is recommended that the following URL be used for this purpose:  
<http://www.exchangenetwork.net/exchanges/cross/here.htm>.
6. It is recommended that the **Protected** box be checked. This will require special flow specific security permissions for this data flow.
7. Click the **Save** button to save the data exchange to the OpenNode2 repository.
8. Repeat steps 2-8 for the following exchanges as needed:
  - a. HERE-CAFO
  - b. HERE-DELETE
  - c. HERE-FACID
  - d. HERE-TANKS
  - e. HERE-TIER2
  - f. SDWIS

## Install the HERE Plugin

Once the data exchange has been created, the next step is to upload the HERE plugin provided by Windsor into the OpenNode2 plugin repository.

1. Click the **Exchange** tab on the top navigation bar.
2. Click the **Upload Plugin** section on the left navigation bar. The Upload Plugin screen will be displayed as follows:

• Manage Exchanges

• Upload Plugin

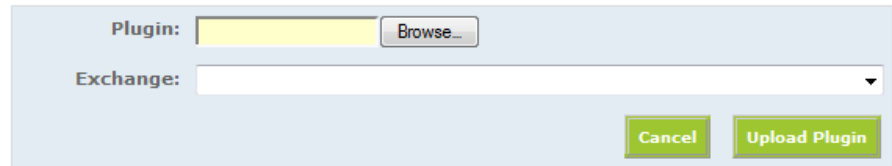
## Data Exchange Manager

The Data Exchange Manager allows you to create, modify and delete the data exchanges and associated data services that your Node supports. Data Exchanges are typically characterized by a specific scope of data being shared by Exchange Network partners.

Each Data Exchange will include one or more Data Services, where those Data Services each provide a particular function within the scope of the parent Data Exchange. Each Data Service is supported technically by an application Plugin which can be uploaded to the Node using the Data Exchange Manager.

### Upload Plugins

This section allows you to upload a new Plugin which will provide new Data Services for use in the Node. The uploaded Plugin file must be compressed.



3. Click the **Browse** button which is located to the right of the **Plugin** field.
4. Locate and select the HERE DLL or HERE.zip file provided by Windsor.
5. Select the data exchange name “HERE” that you created during the previous step from the **Exchange** dropdown box.
6. Click the **Upload** button to upload the plugin.
7. Repeat steps 2-6 for the following exchanges as needed:
  - a. HERE-CAFO
  - b. HERE-DELETE
  - c. HERE-FACID
  - d. HERE-TANKS
  - e. HERE-TIER2
  - f. SDWIS

The newly uploaded plugin code will be placed in the OpenNode2 plugin repository. Any previous plugin versions will be retained in the repository but won’t be accessible through the Node Admin. Only the latest version of any one plugin is made available during the next step to establish data services.

## Create the HERE Data Services

Data services are distinct functions provided by a plugin to support a given data exchange. Each of the HERE data exchanges contains one or more services.

### HERE Services

The HERE exchange contains two services:

- GetHEREDomainLists
- GetHEREManifest



The GetHEREManifest service is required in order for the HERE Client to retrieve data from the Node. The GetHEREDomainLists service is optional.

### GetHEREDomainLists

1. From the **Exchange** tab, locate the HERE data exchange in the list of available exchanges.
2. Click the **Add Service** button located just beneath the HERE exchange entry. The following page will be displayed to allow a new data service to be added.

**Exchange:** HERE

**Service Name:** GetHEREDomainLists

**Implementer:** com.windsor.node.plugin.here.domain.DomainService

**Type:** Solicit

**Active:** ☒ Making service inactive will prevent it from being accessible using the Web Service interface.

**Arguments:**

- Key: **EndpointUri** Use global value ☐  
http://www.windsorsolutions.biz:9080/wne/services/v11
- Key: **IsFacilitySourceIndicator** Use global value ☐  
True
- Key: **Source System Name** Use global value ☐  
NDEQ-IIS

**Data Sources:**

- Key: **Source Data Provider**  
HERE\_FLOW\_FACID\_NE
- Key: **Target Data Provider**  
HERE\_FLOW\_FACID\_NE

**Buttons:** Cancel Save Delete

3. In the **Name** field, type “GetHEREDomainLists.”
4. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.domain.DomainService  
*Note: When the implementer is selected, several arguments and data sources will appear. The Node Admin application will obtain these properties directly from the HERE plugin.*
5. From the **Type** drop down box, select the “Solicit” option.
6. Enable the service by checking the **Active** checkbox.
7. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).

- b. In the argument labeled **IsFacilitySourceIndicator**, enter “True.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database (as defined under “Create the HERE Data Source Definitions”).
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
8. Click the **Save** button to save the service.

### GetHEREManifest

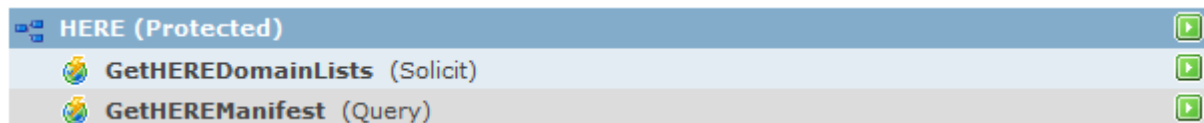
1. Click the **Add Service** button.

The screenshot shows a configuration window for a service named 'GetHEREManifest'. The 'Exchange' is set to 'HERE'. The 'Implementer' is 'com.windsor.node.plugin.here.manifest.ManifestService' and the 'Type' is 'Query'. The 'Active' checkbox is checked, with a note: 'Making service inactive will prevent it from being accessible using the Web Service interface.' Under 'Arguments', three fields are shown: 'EndpointUri' with value 'http://www.windsorsolutions.biz:9080/wne/services/v11', 'IsFacilitySourceIndicator' with value 'False', and 'Source System Name' with value 'NDEQ-IIS'. Each argument has a 'Use global value' checkbox. Under 'Data Sources', two dropdowns are shown, both set to 'HERE\_FLOW\_FACID\_NE': 'Source Data Provider' and 'Target Data Provider'. At the bottom right are 'Cancel', 'Save', and 'Delete' buttons.

2. In the **Name** field, type “GetHEREManifest.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.manifest.ManifestService
4. From the **Type** drop down box, select the “Query” option.
5. Enable the service by checking the **Active** checkbox.

6. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, enter “True.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database (as defined under “Create the HERE Data Source Definitions”).
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
8. Click the **Save** button to save the service.

The **Manage Exchanges** page for the HERE flow should now appear as follows if both services are installed:



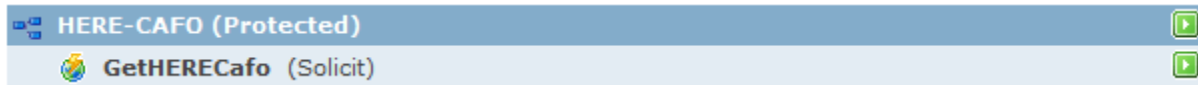
## HERE-CAFO Services

The HERE-CAFO exchange contains only one service, GetHERECafo.

1. Click the **Add Service** button (see “GetHEREDomainLists” for an example screenshot.)
2. In the **Name** field, type “GetHERECafo.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.cafo.CAFOService
4. From the **Type** drop down box, select the “Solicit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, if the data is intended to be imported as separate facilities, enter “True.” Otherwise, if each record is intended to link to facilities flowed in the HERE-FACID flow, enter “False.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.

- e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Click the **Save** button to save the service.

The **Manage Exchanges** page for the HERE-CAFO flow should now appear as follows:



## HERE-DELETE Services

The HERE- DELETE exchange contains only one service, GetHEREDeletes.

1. Click the **Add Service** button (see “GetHEREDomainLists” for an example screenshot.)
2. In the **Name** field, type “GetHEREDeletes.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.frs23.GetDeletedFacilitiesByChangeDate
4. From the **Type** drop down box, select the “Solicit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, enter “True.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Click the **Save** button to save the service.

## HERE-FACID Services

The HERE-FACID exchange contains only one service, GetHEREFacId.

1. Click the **Add Service** button (see “GetHEREDomainLists” for an example screenshot.)
2. In the **Name** field, type “GetHEREFacId.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.facid.FacIdService
4. From the **Type** drop down box, select the “Solicit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:

- a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, enter “True” (HERE-FACID is always a facility source by default).
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Click the **Save** button to save the service.

## HERE-TANKS Services

The HERE- TANKS exchange contains only one service, GetHERETanks.

1. Click the **Add Service** button (see “GetHEREDomainLists” for an example screenshot.)
2. In the **Name** field, type “GetHERETanks.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.tanks.TanksService
4. From the **Type** drop down box, select the “Solicit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, if the data is intended to be imported as separate facilities, enter “True.” Otherwise, if each record is intended to link to facilities flowed in the HERE-FACID flow, enter “False.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Click the **Save** button to save the service.

## HERE-TIER2 Services

The HERE- TIER2 exchange contains only one service, GetHERETier2.

1. Click the **Add Service** button (see “GetHEREDomainLists” for an example screenshot.)

2. In the **Name** field, type “GetHERETier2.”
3. From the **Implementer** drop down box, select the following value:  
**Java:** com.windsor.node.plugin.here.tier2.Tier2Service
4. From the **Type** drop down box, select the “Solicit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:
  - a. In the argument labeled **EndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., “https://deqnode2.ne.gov/Endpoint2/ENService20.asmx”).
  - b. In the argument labeled **IsFacilitySourceIndicator**, if the data is intended to be imported as separate facilities, enter “True.” Otherwise, if each record is intended to link to facilities flowed in the HERE-FACID flow, enter “False.”
  - c. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - d. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.
  - e. In the argument labeled **TargetDatabaseDataSource**, choose the name of the data source for the HERE staging database.
7. Click the **Save** button to save the service.

## SDWIS Services

The SDWIS exchange handles both adding the SDWIS file to the HERE Exchange and submitting it to US EPA.

1. Click the **Add Service** button.

The screenshot shows the 'Data Exchange Manager' interface. On the left is a sidebar with 'Manage Exchanges' (selected) and 'Upload Plugin'. The main area is titled 'Manage Exchange Service' and contains a description: 'This screen allows you to configure or add new services for a selected flow. For examples, the service "GetFacilityByChangeDate" will return all facilities for a given state code and change date.' Below this is a configuration form for the 'SDWIS' exchange. The form has three fields: 'Exchange:' with the value 'SDWIS', 'Service Name:' with the value 'SDWIS', and 'Implementer:' with a dropdown menu showing 'com.windsor.node.plugin.sdwis.SdwisSubmissionRelayProcessor'. At the bottom right of the form are 'Cancel' and 'Next' buttons.

2. In the **Service Name** field, type “SDWIS”.
3. From the **Implementer** drop down box, select  
“com.windsor.node.plugin.sdwis.Sdwis.SubmissionRelayProcessor.”
4. Click the **Next** button.

• Manage Exchanges

• Upload Plugin

## Data Exchange Manager

### Manage Exchange Service

This screen allows you to configure or add new services for a selected flow. For examples, the service "GetFacilityByChangeDate" will return all facilities for a given state code and change date.

**Exchange:** SDWIS

**Service Name:**

**Implementer:**

**Type:**

**Active:** ☒ Making service inactive will prevent it from being accessible using the Web Service interface.

**Arguments:**

Key: <b>HereEndpointUri</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>HereFileNameFilter</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>HereIsFacilitySource</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>HereSourceSystemName</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>SubmitEndpointUri</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>SubmitPassword</b>	Use global value <input type="checkbox"/>
<input type="text"/>	
Key: <b>SubmitUsername</b>	Use global value <input type="checkbox"/>
<input type="text"/>	

**Data Sources:** Key: **HereDataSource**

5. From the **Type** drop down box, select the "Submit" option.
6. Enable the service by checking the **Active** checkbox.
7. Set the following arguments:
  - a. In the argument labeled **HEREEndpointUri**, enter the name of the endpoint address to be used when retrieving files from this Node (e.g., "https://deqnode2.ne.gov/Endpoint2/ENService20.asmx").
  - b. In the argument labeled **HEREFileNameFilter**, type "Inventory."
  - c. In the argument labeled **HEREIsFacilitySource**, if the data is intended to be imported as separate facilities, enter "True." Otherwise, if each record is intended to link to facilities flowed in the HERE-FACID flow, enter "False."
  - d. In the argument labeled **HERESourceSystemName**, enter the name to be used to refer to the source system (e.g., "NDEQ-IIS").
  - e. In the argument labeled **SubmitEndpointUri**, enter the name of the endpoint address to be used when sending this file to EPA (e.g.,

“https://test.epacdxnode.net/cdx/services/NetworkNodeType\_V10”). *NOTE: This must be the v11 endpoint.*

- f. In the argument labeled **SubmitPassword**, enter the password for the NAAS account used to submit this file to US EPA. If this is left blank, the file will be sent using the default admin credentials setup for the Node Admin itself.
- g. In the argument labeled **SubmitUsername**, enter the username for the NAAS account used to submit this file to US EPA. If this is left blank, the file will be sent using the default admin credentials setup for the Node Admin itself.
- h. In the argument labeled **HEREDataSource**, choose the name of the data source for the HERE staging database.

8. Click the **Save** button to save the service.

If **HEREEndpointUri** is left blank, the service will only submit the file to US EPA. If

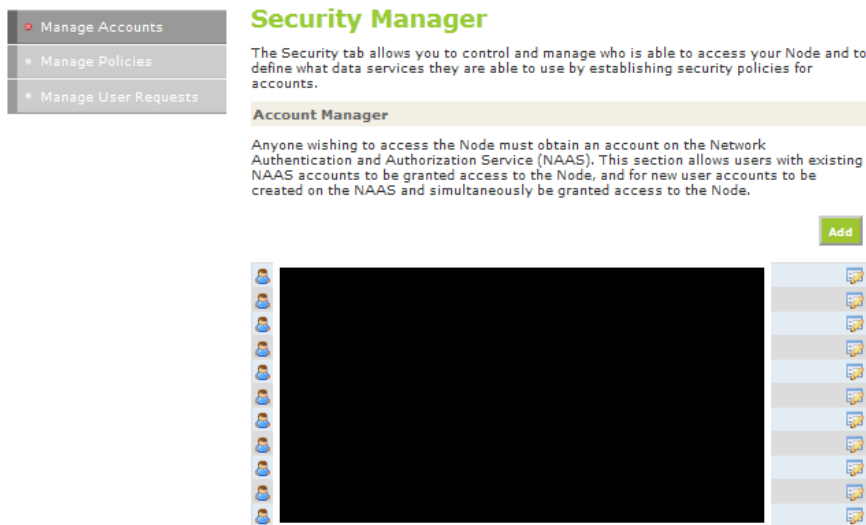
**SubmitEndpointUri** is left blank, the service will only save the SDWIS file to the HERE flow. If both are left blank, an error will be generated in the Node Admin.

## Setup Flow Security Permissions

The HERE data exchange allows for setting each of the data flows as “protected.” This allows for tight control over who can access what data.

### Add Flows to an Existing User

6. To define the security for a given user, click the **Security** tab (user email accounts blanked in the below example):



7. Select a user’s account by clicking the icon next to their NAAS account.



## Security Manager

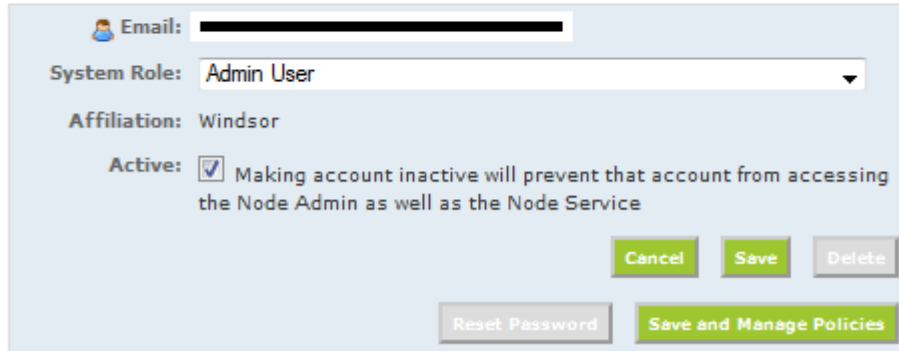
The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### WINDSOR Account Editor

User accounts will be managed simultaneously for the Node and within NAAS. A user account will be one of three types:

Please see the Node Admin User Guide for a detailed explanation of roles.

**Warning:** NAAS modifications disabled. Account not affiliated with the local Node: WINDSOR.



Email:

System Role: Admin User

Affiliation: Windsor

Active: ☒ Making account inactive will prevent that account from accessing the Node Admin as well as the Node Service

Cancel Save Delete

Reset Password Save and Manage Policies

8. Click **Save and Manage Policies** to view the current policies for this account.

- Manage Accounts
- **Manage Policies**
- Manage User Requests

## Security Manager

The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### Account Policy Manager

Policies may be defined for each user account, and determine which data services the account holder may access. Policies defined in this section will be created on the NAAS as well as the Node.

The screenshot shows the 'Account Policy Manager' interface. At the top, there is a user profile icon and the name 'Windsor'. Below this, the 'Affiliate' is listed as 'Windsor'. A note explains that a lock icon indicates a protected flow requiring a specific policy. The 'Flows Access' section contains a table with the following flows and their corresponding checkboxes:

Flow	Access
AQS	<input type="checkbox"/>
BEACHES	<input type="checkbox"/>
ENDS2	<input type="checkbox"/>
FacID_v3.0	<input type="checkbox"/>
FRS	<input type="checkbox"/>
GWDX_DW	<input type="checkbox"/>
HERE	<input type="checkbox"/>
HERE-FACID	<input type="checkbox"/>
HERE-TIER2	<input type="checkbox"/>
ICIS-NPDES	<input type="checkbox"/>
NCT	<input type="checkbox"/>
RCRA	<input type="checkbox"/>
SDWIS	<input type="checkbox"/>
TRI	<input type="checkbox"/>
Windsor	<input type="checkbox"/>
WQX	<input type="checkbox"/>

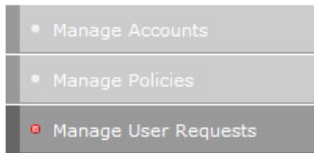
At the bottom right, there are three buttons: 'Edit Local Role', 'Cancel', and 'Save'.

9. Check the box to assign permissions for each flow to that user.

10. When finished, click **Save**.

## Manage User Requests

Users of the HERE Client can request access to the flows by submitting a request to your Node using the HERE Client itself. These requests are available by clicking the **Manage User Requests** button in the **Security** section. Each request includes the name of the requestor, their affiliated State and organization, their contact email address, phone number, and a stated purpose as to why they are requesting access to the available flows.



## Security Manager

The Security tab allows you to control and manage who is able to access your Node and to define what data services they are able to use by establishing security policies for accounts.

### Manage User Authorization Requests

The User Authorization Request Manager allows you to manage pending user requests for access to protected flows on this Node.

TK Conrad	(tkconrad@gmail.com)	Requested: 04/01/2013
Affiliated State: <input type="text"/> Organization: <input type="text"/> Contact Email: <input type="text"/> Contact Phone #: <input type="text"/> Request Purpose: Test Requested Flows: <input type="text"/> Comments: <input type="text"/>		
		<input type="button" value="Accept"/> <input type="button" value="Reject"/>

TK Conrad	(tkconrad@msn.com)	Requested: 04/01/2013
Affiliated State: <input type="text"/> Organization: <input type="text"/> Contact Email: <input type="text"/> Contact Phone #: <input type="text"/> Request Purpose: Test Requested Flows: <input type="text"/> Comments: <input type="text"/>		
		<input type="button" value="Accept"/> <input type="button" value="Reject"/>

4. In the **Requested Flows** section, check the **Allow** checkbox next to each flow being granted to the user.
5. In the **Comments** section, enter an optional comment to be sent to the user making the request.
6. Depending upon whether you accept or reject this request, click the **Accept** or **Reject** button. A notification email will be sent to the user in question, and the user's permissions will be automatically updated to reflect your settings.

## Define Data Exchange Schedules

Scheduled jobs can be configured to perform automated tasks such as generating XML files to be staged for submitting to HERE Client subscribers, submitting data to external partners, or processing received files.

The HERE data exchange relies on there being pre-generated XML files ready to be downloaded at any time from the partner Node. For each data exchange, it is typical to setup a full-refresh schedule to run on a periodic basis, and an incremental schedule to run on a daily basis. There are two exceptions:

- **GetHEREManifest:** This is a query service, so is not scheduled to be pre-generated by the Node.
- **SDWIS:** Because the HERE data exchange receives a full-refresh SDWIS file generated from a separate application (e.g., SDWIS State), it does not need to be scheduled in the same way as the other HERE flows.

The following steps use the HERE-FACID schedule as an example for setting up the schedules for the HERE data exchange.

1. From the **Schedules** tab, click the **Add Schedule** button.

Manage Schedules

## Schedule Manager

The Schedule Manager allows you to create, modify and delete certain types of regularly occurring processes that the Node itself should initiate. These differ from the external requests that require a response from the Node.

### Edit Recurring Processes

Schedules may be defined to execute on a regular basis, for example, by hour, day, or month and for a defined period of time. You may also request that a Schedule be executed immediately.

Name:

HERE-FACID Full Refresh

Active:

☒

Exchange:

HERE-FACID

Availability:

Starts On

2013-02-08 15:53

Ends On

2013-02-08 15:53

Frequency:

Every 0 Once

Data Source:

☒ Results of local service execution  
☐ Results of partner service solicit (Transaction Id)  
☐ Results of partner service query (XML)  
☐ File system resource (network path)

Service:

GetHEREFacId

Arguments

Days Since Last Run:

9999

Result Process:

The results of the scheduled job will be saved to the Node administration database. In addition, the results of this schedule can be further processed using one of the following options:

☒ None  
☐ Submit result to an Exchange Network partner  
☐ Submit result to Schematron service for validation  
☐ Save uncompressed result to a network path location  
☐ Send compressed result as an email attachment

Audit:

Last modified by tkconrad@gmail.com on 2013-02-08 15:54:10.0.

Cancel

Save

Delete

Save and Run Now

2. In the **Name** field, type the name of the schedule to be setup (e.g., “HERE-FACID Full Refresh File”).
3. Enable the schedule by clicking the **Active** checkbox.
4. Select “HERE-FACID” from the **Exchange** dropdown list.

5. Set the start date to the first date when you wish the schedule to run. If the date is equal to the current or a past date, the schedule will execute immediately upon saving.
6. Set the end date to some point in the distant future.
7. Set the frequency to the data generation interval appropriate for the type of flow:
  - a. **Full-Refresh schedules:** Monthly or Quarterly
  - b. **Incremental schedules:** Daily or Weekly
8. In the **Data Source** area, check the radio button labeled **Results of local service execution**.
9. In the **From** dropdown box, select the appropriate value, which will be limited to one service depending upon the **Exchange** specified (e.g., “HERE-FACID – GetHEREFacId”).
10. In the **Additional Parameters** area, select “By Index.”
11. The **Value** textbox will specify the number of days since today’s date to use when querying the UPDATE\_DATE in the CHANGED\_FACILITIES table.<sup>2</sup> Enter one of the following
  - a. **Full-Refresh schedules:** Any number larger than 365.
  - b. **Incremental schedules:** 1 or 7, depending upon whether the schedule is ran daily or weekly.
12. In the **Result Process** area, check the radio button labeled **None**.
13. Click the **Save** button to save the schedule, or **Save and Run Now** to start executing the schedule immediately. *NOTE: To manually run any schedule already setup, click the **Save and Run Now** button.*

## Set Up Email Notifications

If desired, the Node administrator may create NAAS accounts for one or more staff members and create notifications for the any OpenNode2 events related to the HERE data exchange. Please see the Node Administration Guide for more information on setting up notifications.

## Monitor Flow Activity

The OpenNode2 will track all HERE data exchange activity and can be accessed to monitor and debug related flow activities. Please see the OpenNode2 Administration User Guide for more information on accessing and searching the available OpenNode2 activity reports.

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<sup>2</sup> For example, if today is 9/30/2009 and there were two facilities in CHANGED\_FACILITIES with an UPDATE\_DATE of 9/29 and one facility with an UPDATE\_DATE of 9/30, setting this value to 1 would return three facilities when running this schedule.