

# OpenNode2

# HERE 2.0 Data Exchange Implementation Guide

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## Environmental Information

The logo for Exchange Network, featuring the word "exchange" in blue and "Network" in green, with a stylized green 'X' graphic.



## 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



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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 Microsoft .NET and Java implementations 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-SDWIS</b>	Contains a service for making the SDWIS Inventory XML file available to the HERE Exchange (Java only).
<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.

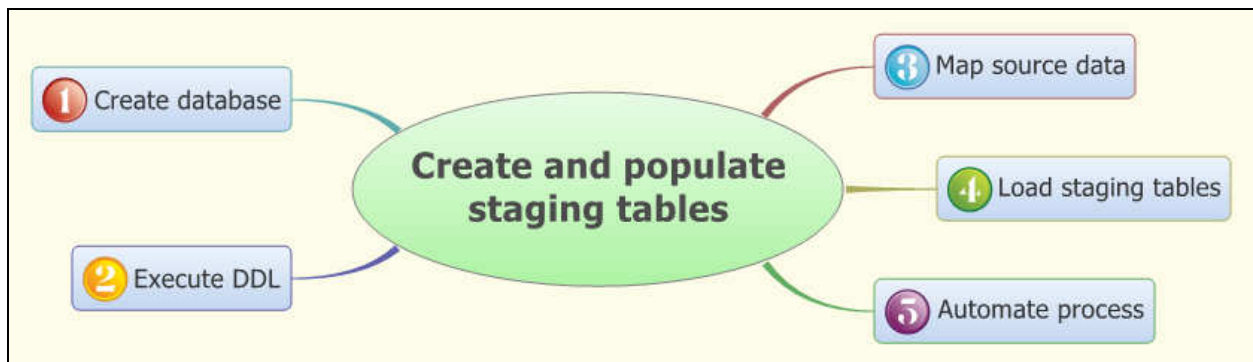
The rest of this document will describe these two processes in detail.

*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.



5. 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

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

---

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

[illegible]

2. Select a user's account by clicking the green arrow next to their NAAS account.

## Security Manager

### Add/Edit User

The Add/Edit User page allows you to add a new user or edit an existing user. New user accounts will be created both for the Node and within NAAS.

Username:

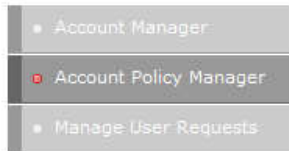
Affiliate: KS

Role:

Active: ☒ Note: making this user inactive will prevent this user from accessing the Node Admin as well as the Node Service

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

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



## Security Manager

### Policy Manager

Assign policies to the specified user by checking or unchecking access to one or more of the following exchanges:

User:

Created by:

NAAS Role: User

Affiliate: KS

Flows Access: Note: 'Allow' indicates that the user may access the associated flow.

Flow	Allow
FacID_v3.0 (Flow is not protected)	<input checked="" type="checkbox"/>
Flow-Security (Protected)	<input checked="" type="checkbox"/>
HERE (Protected)	<input checked="" type="checkbox"/>
HERE-CAFO (Protected)	<input checked="" type="checkbox"/>
HERE-FACID (Protected)	<input checked="" type="checkbox"/>
HERE-FRS (Protected)	<input type="checkbox"/>
HERE-TANKS (Protected)	<input checked="" type="checkbox"/>
HERE-TIER2 (Protected)	<input checked="" type="checkbox"/>
OWIR (Protected)	<input type="checkbox"/>
SDWIS (Protected)	<input checked="" type="checkbox"/>
TRI (Protected)	<input type="checkbox"/>
Windsor (Protected)	<input type="checkbox"/>

Buttons: Cancel, Save

- Check the “Allow” box to assign permissions for each flow to that user.
- When finished, click **Save**.

## Bulk Add Users

Because there may be many users of the HERE Client who need to be given permissions on various flows, a Bulk Add function has been incorporated into this version of the OpenNode2.

1. Click the Bulk Add Users button.

### Security Manager

#### Bulk Add Users

The Bulk Add Users page allows you to add several users at once. Enter a list of user emails (separated by commas, semicolons, or newlines) in the Usernames edit box. You can also specify an optional, initial password for each user (if no password is specified a random password will be generated for each user).

**Usernames:**

**Password:**

**Confirm Password:**

**Create In NAAS:** ☒ If users do not exist in NAAS, create them

**Role:**

**Secure Flows Access:**

<b>Flow-Security</b>	Security-related flows	Allow: <input type="checkbox"/>
<b>HERE-CAFO</b>	HERE-CAFO Description	Allow: <input type="checkbox"/>
<b>HERE-FRS</b>	HERE-FRS Description	Allow: <input type="checkbox"/>
<b>HERE-TIER2</b>	HERE-TIER2 Description	Allow: <input type="checkbox"/>
<b>Windsor</b>	Windsor Maintenance Tasks	Allow: <input type="checkbox"/>
<b>WQX</b>	Water Quality Data Exchange	Allow: <input type="checkbox"/>

2. In the **Usernames** field, enter a list of user emails separated by commas, semicolons, or new lines.
3. In the **Password** field, enter an initial password that will be assigned to each account. Retype the same password in the **Confirm Password** field.
4. Check the **Create in NAAS** option if you wish for these users to be created in NAAS if the accounts do not already exist.
5. In the **Role** drop-down, select the appropriate role for the users to be created:
  - a. **Authed:** Users have access to the specified flows but nothing more, and cannot access the Node Admin.

- b. **Program:** Users have access to the specified flows and can access the Node Admin to start schedules.
  - c. **Admin:** Users have access to the specified flows and can access all functions in the Node Admin.
6. In the **Secure Flows Access** section, check the boxes next to the flows permitted for this group of users.
7. When finished, click **Add Users** to 1) create the users in the Node Admin, 2) create them in NAAS (if specified), and 3) grant these users permissions to the selected flows.

## 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

### Manage User Requests

The Manage User Requests page allows you to manage existing user requests (users requesting to be added to the Node).

Requested: 9/9/2009

Affiliated State: [Redacted]

Organization: [Redacted]

Contact Email: [Redacted]

Contact Phone #: [Redacted]

Request Purpose: [Redacted]

Requested Flows:

HERE-CAFO (HERE-CAFO Description)	<input type="checkbox"/> Allow
HERE-FRS (HERE-FRS Description)	<input type="checkbox"/> Allow
HERE-TIER2 (HERE-TIER2 Description)	<input type="checkbox"/> Allow

Comments:

**Accept** **Reject**

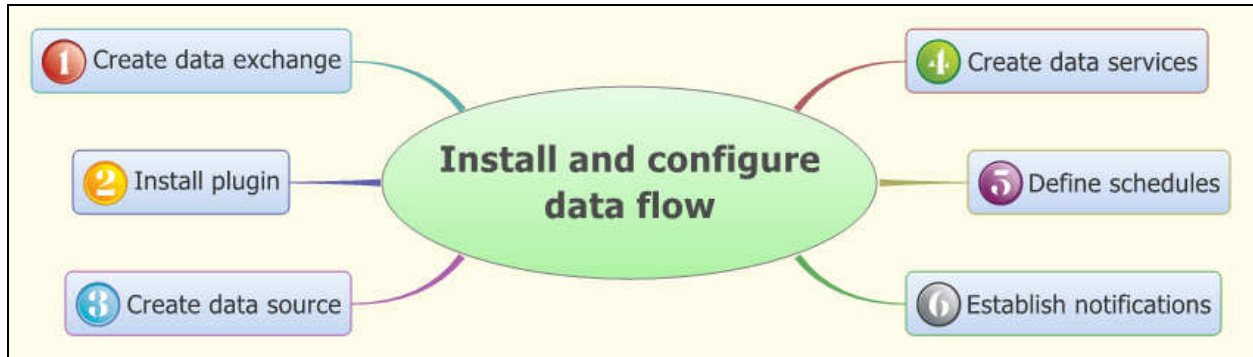
1. In the **Requested Flows** section, check the **Allow** checkbox next to each flow being granted to the user.
2. In the **Comments** section, enter an optional comment to be sent to the user making the request.
3. Depending upon whether you accept or reject this request, click the **Accept** or **Reject** 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 Microsoft .NET and Java implementations 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

#### Data Sources

This section of the Node Configuration provides a mechanism to create, edit and delete data sources which can be applied to many data services.

[Add Data Source](#)

HERE_FLOW_FACID	(server=.\sqlexpress;integrated security=true;database=HERE_FLOW_FACID)	
NODE_FLOW_FACID	(server=.\sqlexpress;integrated security=true;database=NODE_FLOW_FACID)	
NODE_FLOW_FACID_INBOUND	(server=.\sqlexpress;integrated security=true;database=NODE_FLOW_FACID_INBOUND)	

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

- Global Arguments
- **Data Sources**
- Network Partners

## Node Configuration Manager

### Data Sources

This section of the Node Configuration provides a mechanism to create, edit and delete data sources which can be applied to many data services.

**Name:**

HERE\_FLOW

**Provider:**

System.Data.SqlClient

**Connection:**

server=.\sqlexpress;integrated  
security=true;database=HERE\_FLOW\_FACID

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-SDWIS
- 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:

**Data Exchange Manager**  
Manage Data Exchange

This screen allows you to configure or add new exchange. You must define a data flow before you will be able to create a data service for that flow.

**Name:** HERE

**Description:** Homeland Emergency Response Exchange

**Contact:** nodeadmin@windsorsolutions.com

**Web Info:** <http://www.exchangenetwork.net/exchanges/cross/here.htm>

**Protected:** ☒ Note: 'Protected' indicates that any access to this flow requires a policy. Otherwise, only a valid, authenticated token is required to access the flow. (Query, Solicit, Download, etc.)

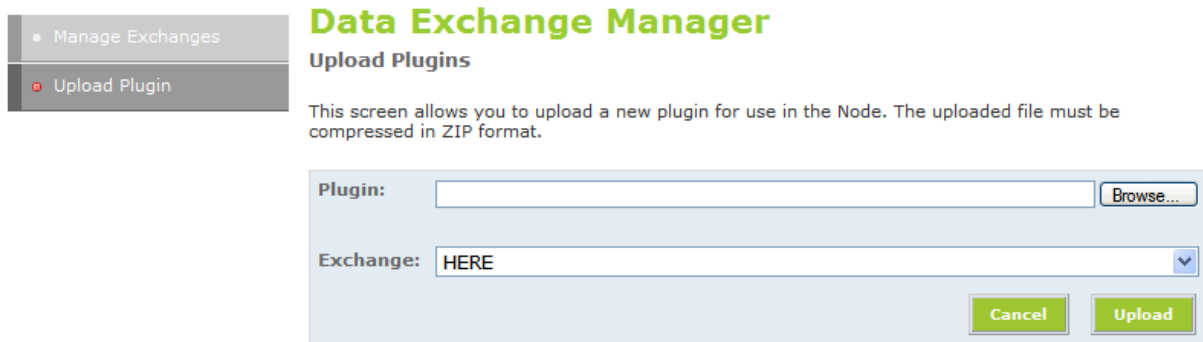
Cancel Save

3. Type “HERE” in the **Name** field.
4. Type a short description in the **Description** field.
5. 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.
6. 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>.
7. It is recommended that the **Protected** box be checked. This will require special flow specific security permissions for this data flow.
8. Click the **Save** pushbutton to save the data exchange to the OpenNode2 repository.
9. Repeat steps 2-8 for the following exchanges as needed:
  - a. HERE-CAFO
  - b. HERE-DELETE
  - c. HERE-FACID
  - d. HERE-SDWIS
  - e. HERE-TANKS
  - f. HERE-TIER2
  - g. 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:



3. Click the **Browse** button which is located to the right of the **Plugin** field.
4. Locate and select the HERE DLL file provided by Windsor (ZIP).
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-SDWIS
  - e. HERE-TANKS
  - f. HERE-TIER2
  - g. 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

**Name:** GetHEREDomainLists

**Implementer:** Windsor.Node2008.WNOSPlugin.HERE.GetHEREDomainLists (v1.0.3488.17706)

**Type:** Solicit

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

**Arguments:**

Key: **EndpointUri** Use global value ☐  
 https://deqnode2.ne.gov/Endpoint2/ENService20.aspx

Key: **IsFacilitySourceIndicator** Use global value ☐  
 True

Key: **SourceSystemName** Use global value ☐  
 NDEQ-IIS

**Data Sources:**

Key: **SourceDatabaseDataSource**  
 HERE\_FLOW\_FACID

Key: **TargetDatabaseDataSource**  
 HERE\_FLOW\_FACID

Buttons: Cancel Save Delete

3. In the **Name** field, type "GetHEREDomainLists." *In the Java OpenNode2, click **Next** to see the remaining setup variables.*

4. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:

- a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHEREDomainLists

- b. **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**

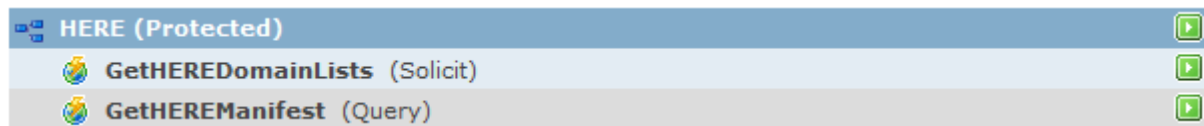
1. Click the **Add Service** button.

The screenshot shows a web-based configuration form for a service named "GetHEREManifest". The form is titled "Exchange: HERE". It contains several fields and controls:

- Name:** A text box containing "GetHEREManifest".
- Implementer:** A dropdown menu showing "Windsor.Node2008.WNOSPlugin.HERE.GetHEREManifest (v1.0.3488.17706)".
- Type:** A dropdown menu showing "Query".
- Active:** A checkbox that is checked, with a note: "Note: Making this service inactive will prevent it from being accessible using the Web Service interface."
- Arguments:** A section with a label "Data Sources: Key: SourceDatabaseDataSource" and a dropdown menu showing "HERE\_FLOW\_FACID".
- Buttons:** At the bottom right, there are three buttons: "Cancel", "Save", and "Delete".

2. In the **Name** field, type “GetHEREManifest.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:
  - a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHEREManifest
  - b. **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. 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:



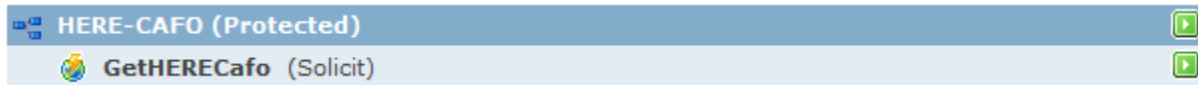
## HERE-CAFO Services

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.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:
  - a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHERECAFO
  - b. **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:
  - c. 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”).
  - d. 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.”
  - e. In the argument labeled **SourceSystemName**, enter the name to be used to refer to the source system (e.g., “NDEQ-IIS”).
  - f. In the argument labeled **SourceDatabaseDataSource**, choose the name of the data source for the HERE staging database.

- g. 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.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:
  - a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHEREDeletes
  - b. **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.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:

- a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHEREFacId
  - b. **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-SDWIS Services

*NOTE: The HERE-SDWIS service is only used for the Java version of OpenNode2.*

The HERE- SDWIS exchange contains only one service, HERE-SDWIS.

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

**Exchange:** HERE-SDWIS

**Service Name:** HERE-SDWIS

**Implementer:** com.windsor.node.plugin.here.sdwis.SdwisFileSubmitProcessor

**Type:** Submit

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

**Arguments:**

Key: **EndpointUri** Use global value ☒  
 HERE\_endpoint\_uri

Key: **IsFacilitySourceIndicator** Use global value ☐  
 false

Key: **Source System Name** Use global value ☐  
 OH-CORE

**Data Sources:** Key: **Target Data Provider**  
 HERE\_STAGING

Cancel Save Delete

2. In the **Service Name** field, type “HERE-SDWIS.” Click **Next** to see the remaining setup variables.
3. From the **Implementer** drop down box, select the “com.windsor.node.plugin.here.sdwis.SdwisFileSubmitProcessor” plugin.
4. From the **Type** drop down box, select the “Submit” 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 **TargetDataProvider**, 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.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:
  - a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHERETanks
  - b. **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.” *In the Java OpenNode2, click **Next** to see the remaining setup variables.*
3. From the **Implementer** drop down box, select one of the following values depending upon whether this is implemented for .NET or Java:
  - a. **.NET:** Windsor.Node2008.WNOSPlugin.HERE.GetHERETier2
  - b. **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 is setup slightly differently for the .NET and Java versions of OpenNode2. In the .NET version, the SDWIS exchange handles both adding the SDWIS file to the HERE Exchange and submitting it to US EPA. In the Java version, the SDWIS exchange only saves the file to the OpenNode2 database and submits the file to US EPA, and otherwise relies on the HERE-SDWIS flow to make the SDWIS file available to the HERE exchange. Therefore, the parameters are different for the two versions, so each has been specified separately below.

### ***SDWIS Services for .NET***

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

 **Exchange:** SDWIS

**Name:**

**Implementer:** Windsor.Node2008.WNOSPlugin.SDWIS.SdwisSubmissionRelayProcessor (v1.0.3555.2) ▼

**Type:** Submit ▼

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

**Arguments:**

Key: **HereEndpointUri** Use global value ☒  
 ▼

Key: **HereFileNameFilter** Use global value ☐

Key: **HereIsFacilitySource** Use global value ☐

Key: **HereSourceSystemName** Use global value ☐

Key: **SubmitEndpointUri** Use global value ☐

Key: **SubmitPassword** Use global value ☐

Key: **SubmitUsername** Use global value ☐

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

2. In the **Name** field, type “\*.”
3. From the **Implementer** drop down box, select “Windsor.Node2008.WNOSPlugin.SDWIS.SdwisSubmissionRelayProcessor.”
4. From the **Type** drop down box, select the “Submit” option.
5. Enable the service by checking the **Active** checkbox.

6. 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/NetworkNodePortType\_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.
7. 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.

### **SDWIS Services for Java**

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

The screenshot shows a configuration window for an SDWIS service. At the top, it says "Exchange: SDWIS". Below this, there are several fields and options:

- Service Name:** A text box containing "SDWIS".
- Implementer:** A dropdown menu showing "com.windsor.node.plugin.sdwis.SimpleSdwisRequestProcessor".
- Type:** A dropdown menu showing "Submit".
- Active:** A checkbox that is checked, with the text "Making service inactive will prevent it from being accessible using the Web Service interface."
- Arguments:** A section with a key-value pair. The key is "targetEndpointUrl" and the value is "EPA\_CDX\_test". There is a "Use global value" checkbox which is also checked.

At the bottom right, there are three buttons: "Cancel", "Save", and "Delete".

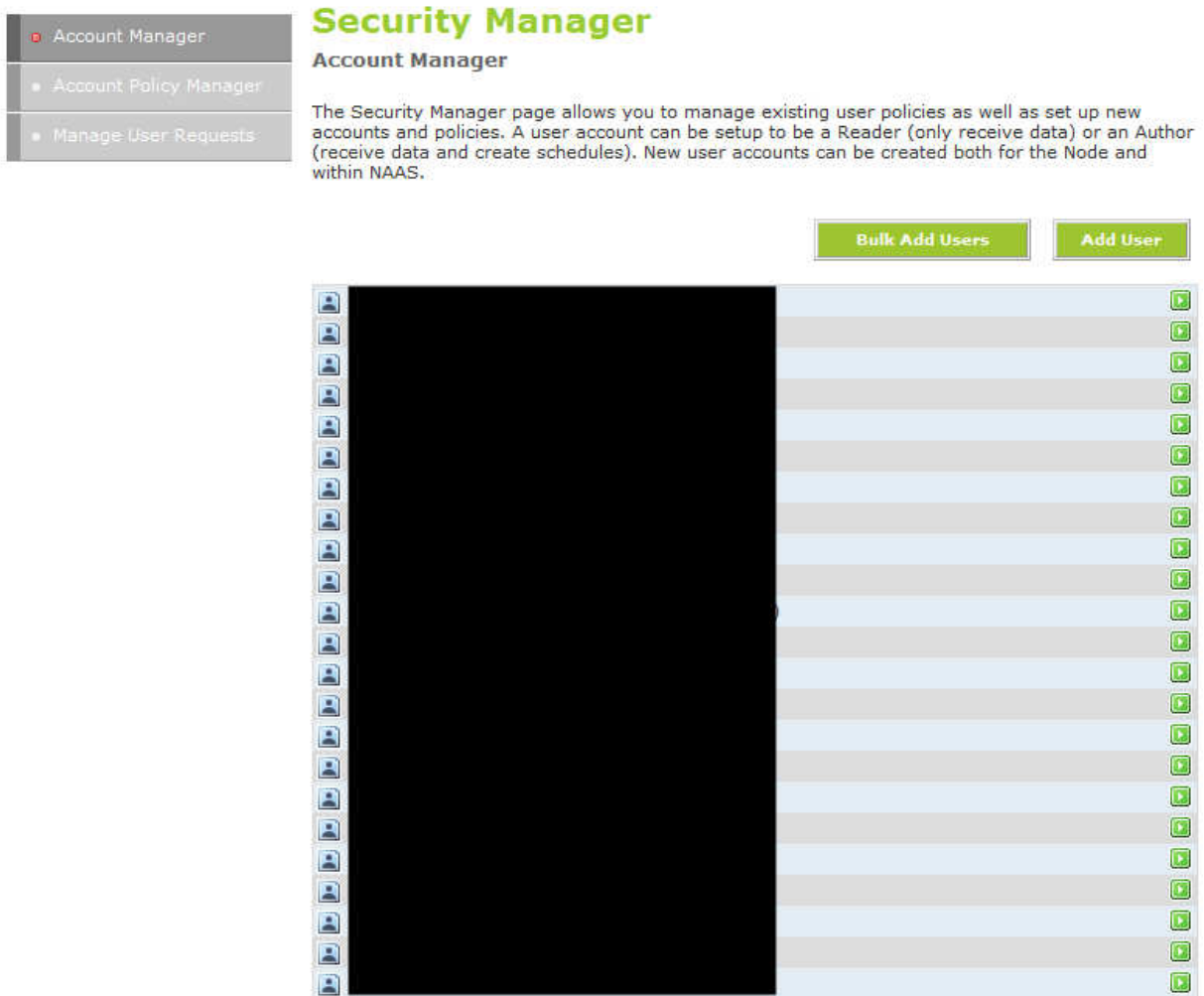
2. In the **Service Name** field, type “SDWIS”
3. From the **Implementer** drop down box, select  
“com.windsor.node.plugin.sdwis.SimpleSdwisRequestProcessor”
4. From the **Type** drop down box, select the “Submit” option.
5. Enable the service by checking the **Active** checkbox.
6. Set the following arguments:
  - a. In the argument labeled **targetEndpointUrl**, 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.*
7. Click the **Save** button to save the service.

## 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 green arrow next to their NAAS account.

## Security Manager

### Add/Edit User

The Add/Edit User page allows you to add a new user or edit an existing user. New user accounts will be created both for the Node and within NAAS.

Username:

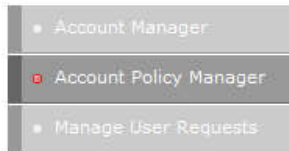
Affiliate: KS

Role:

Active: ☒ Note: making this user inactive will prevent this user from accessing the Node Admin as well as the Node Service

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

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



## Security Manager

### Policy Manager

Assign policies to the specified user by checking or unchecking access to one or more of the following exchanges:

User:

Created by:

NAAS Role: User

Affiliate: KS

Flows Access: Note: 'Allow' indicates that the user may access the associated flow.

Flow	Allow
FacID_v3.0 (Flow is not protected)	<input checked="" type="checkbox"/>
Flow-Security (Protected)	<input checked="" type="checkbox"/>
HERE (Protected)	<input checked="" type="checkbox"/>
HERE-CAFO (Protected)	<input checked="" type="checkbox"/>
HERE-FACID (Protected)	<input checked="" type="checkbox"/>
HERE-FRS (Protected)	<input type="checkbox"/>
HERE-TANKS (Protected)	<input checked="" type="checkbox"/>
HERE-TIER2 (Protected)	<input checked="" type="checkbox"/>
OWIR (Protected)	<input type="checkbox"/>
SDWIS (Protected)	<input checked="" type="checkbox"/>
TRI (Protected)	<input type="checkbox"/>
Windsor (Protected)	<input type="checkbox"/>

Buttons: Cancel, Save

- Check the “Allow” box to assign permissions for each flow to that user.
- When finished, click **Save**.

## Bulk Add Users

Because there may be many users of the HERE Client who need to be given permissions on various flows, a Bulk Add function has been incorporated into this version of the OpenNode2.

8. Click the Bulk Add Users button.

### Security Manager

#### Bulk Add Users

The Bulk Add Users page allows you to add several users at once. Enter a list of user emails (separated by commas, semicolons, or newlines) in the Usernames edit box. You can also specify an optional, initial password for each user (if no password is specified a random password will be generated for each user).

**Usernames:**

**Password:**

**Confirm Password:**

**Create In NAAS:** ☒ If users do not exist in NAAS, create them

**Role:**

**Secure Flows Access:**

Flow	Description	Allow
Flow-Security	Security-related flows	<input type="checkbox"/>
HERE-CAFO	HERE-CAFO Description	<input type="checkbox"/>
HERE-FRS	HERE-FRS Description	<input type="checkbox"/>
HERE-TIER2	HERE-TIER2 Description	<input type="checkbox"/>
Windsor	Windsor Maintenance Tasks	<input type="checkbox"/>
WQX	Water Quality Data Exchange	<input type="checkbox"/>

9. In the **Usernames** field, enter a list of user emails separated by commas, semicolons, or new lines.
10. In the **Password** field, enter an initial password that will be assigned to each account. Retype the same password in the **Confirm Password** field.
11. Check the **Create in NAAS** option if you wish for these users to be created in NAAS if the accounts do not already exist.
12. In the **Role** drop-down, select the appropriate role for the users to be created:
  - a. **Authed:** Users have access to the specified flows but nothing more, and cannot access the Node Admin.



- b. **Program:** Users have access to the specified flows and can access the Node Admin to start schedules.
  - c. **Admin:** Users have access to the specified flows and can access all functions in the Node Admin.
13. In the **Secure Flows Access** section, check the boxes next to the flows permitted for this group of users.
14. When finished, click **Add Users** to 1) create the users in the Node Admin, 2) create them in NAAS (if specified), and 3) grant these users permissions to the selected flows.

## 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

### Manage User Requests

The Manage User Requests page allows you to manage existing user requests (users requesting to be added to the Node).

Requested: 9/9/2009

Affiliated State: [Redacted]

Organization: [Redacted]

Contact Email: [Redacted]

Contact Phone #: [Redacted]

Request Purpose: [Redacted]

Requested Flows:

HERE-CAFO (HERE-CAFO Description)	<input type="checkbox"/> Allow
HERE-FRS (HERE-FRS Description)	<input type="checkbox"/> Allow
HERE-TIER2 (HERE-TIER2 Description)	<input type="checkbox"/> Allow

Comments:

**Accept** **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.

## Schedule Manager

### Manage Schedule Details

New scheduled tasks can be added from this screen. Upon adding the task if the task is scheduled to run as of now (default), the task will immediately start running.

**Name:**  ☒ **Active**

**Exchange:**

**Availability:**

**Starts On:**

**Ends On:**

**Run Time:**  (hh:mm am/pm)

**Frequency:**

**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)

**From:**

**Additional Parameters:** ☐ By Name ☒ By Index

Value
1 9999

**Result Process:** In addition to the saving the results in the Node binary repository, 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 compressed result to a network directory location

☐ Send compressed result as an email attachment

**Audit:** Last modified by tk@windsorsolutions.com on 9/30/2009 9:24:00 AM

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.