iWay Software



Configuring the NAS2 Adapter in iWay Service Manager

The NAS2 adapter is a non-blocking AS2 with improved performance, connection management, and security features.

The NAS2 adapter provides extensive flexibility by exposing an array of parameters that can be configured for security providers, Message Disposition Notification (MDN) handling, Certificate Revocation List (CRL) checking, and so on.

This topic describes how to import the *NAS2_demo.zip* file as a package using the iWay Service Manager (iSM) Administration Console, and then build and deploy your NAS2 channels.

Prerequisites

Before continuing, ensure that you review the prerequisites that are described in this section.

- NAS2_demo.zip file, which contains:
 - o BC16_141.zip
 - o jce_policy-6.zip
 - NAS2_Demo_Channel_Archive.zip
 - NAS2_Provider-package.zip
 - NAS2Keystore1.jks
 - NAS2Keystore2.jks
- Java Development Kit (JDK) Version 1.6.0_21.

Note: This how-to will work with earlier JDK 1.6.0_xx versions, but version _21 is recommended.

• Unlimited Strength Java Cryptography Extension (JCE) Policy Files for the Java Platform, Standard Edition Development Kit Version 6 (*jce_policy-6.zip*).

Note: Installation instructions are included in the *jce_policy-6.zip* file. You must update the policy files in the JDK and Java Runtime Environment (JRE).

• Edit the *java.security* file, which is typically located in the following directory:

C:\Program Files\Java\jdk1.6.0_16\jre\lib\security

A *jre6* folder under Java may exist that must be edited. You must add the following provider line for the Bouncy Castle JCE:

security.provider.1=sun.security.provider.Sun security.provider.2=sun.security.rsa.SunRsaSign security.provider.3=com.sun.net.ssl.internal.ssl.Provider security.provider.4=com.sun.crypto.provider.SunJCE security.provider.5=sun.security.jgss.SunProvider security.provider.6=com.sun.security.sasl.Provider security.provider.7=org.jcp.xml.dsig.internal.dom.XMLDSigRI security.provider.8=sun.security.smartcardio.SunPCSC security.provider.9=sun.security.mscapi.SunMSCAPI security.provider.10=org.bouncycastle.jce.provider.BouncyCastleProvider

• Extract the keystores (*NAS2Keystore1.jks* and *NAS2Keystore2.jks*) to your <*iway_home>* directory. For example:

C:\iway7

• Extract the Bouncy Castle Version 1.6_141 files (*BC16_141.zip*) to your *<iway_home>/*lib directory. Remove the existing *bcxxxx-jdk15-143.jar* files.

Note: You must stop iWay Service Manager (iSM) before you remove the existing *bcxxxx-jdk15-143.jar* files in your *<iway_home>/*lib directory.

• Create the following directories on your system:

C:/UnrecognizedCerts/

C:/file/mdn_signed/

This is where the synchronous Message Disposition Notification (MDN) files will be returned to the NAS2 Emitter and is your *non-reputable receipt*.

• Create the following directories on your system for the NAS2 File Listener (NAS2_file_listener):

C:/file/in/

C:/file/out/

C:/file/removal/

Installing the Channel Archive (NAS2_Demo_Channel_Archive.zip)

This section describes how to install the channel archive (NAS2_Demo_Channel_Archive.zip) using the iWay Service Manager (iSM) Administration Console.

1. Extract the *NAS2_demo.zip* file to a folder on your system. For example:

C:\NAS2_demo

2. From the iSM Administration Console, navigate to *Tools*, click *Archive Manager* in the left pane, select the *Add/Create/Download/Delete Archives* option, and then click *Next*, as shown in the following image.

| iWay Service Manager Server Registry Deployments <u>Tools</u> | | | | | |
|---|---|--|--|--|--|
| Applications Business Activity Monitor Enterprise Index | Archive Manager The iWay Archive Manager is used to manage the additi are specially designed files that contain components, mo server instance. | | | | |
| Trading Partner Manager | Archive Manager | | | | |
| Diagnostics Log Viewer | Import components from a managed server Import components from a repository archive Add/Create/Download/Delete Archives | | | | |
| Monitors iWay Service Monitor | Nq.,ŧ >> | | | | |
| Imports/Exports | | | | | |
| Package Manager Archive Manager | | | | | |

3. Click *Add*.

| < Back | Add | Delete | Create |
|--------|-----|--------|--------|
| | 7 | | |

4. Browse to the *NAS2_Demo_Channel_Archive.zip* file and then click *Next*, as shown in the following image.

| Archive Manager - Upload Upload, download, create and d | delete repository archives. | |
|--|--|----|
| Upload repository archive | | |
| Select a repository archive to upload * | C:\NAS2_demo\NAS2_Demo_Channel_archive.zip | se |
| < Back Next >> | Reset | |

You are returned to the Archive Manager (Add/Create/Download/Delete Archives) page.

5. Click *Archive Manager* in the left pane, select the *Import components from a repository archive* option, and then click *Next* as shown in the following image.



The Archive Manager - Import components from a repository archive page opens.

6. Select *NAS2_Demo_Channel_Archive*, click *Next*, and then click *Finish*.

Installing the NAS2 Provider Package

This section describes how to install the keystores (Security Provider) and the HTTP client (Pooling Provider).

1. From the iSM Administration Console, navigate to *Tools*, click *Package Manager* in the left pane, select the *Add/Create/Download/Delete Packages* option, and then click *Next*, as shown in the following image.

| iWay Service Manager | | | | |
|---|---|--|--|--|
| Server Registry De | ployments <u>Tools</u> | | | |
| Applications Business Activity Monitor Enterprise Index Trading Partner Manager Diagnostics | Package Manager The iWay Package Manager is used to manage t are specially designed archive files that contain apply their contents to a specific server instance Choose Operation Package Manager O Install/Uninstall Packages O Add/Create/Download/Delete Packages | | | |
| Log Viewer Monitors iWay Service Monitor Imports/Exports Package Manager Archive Manager Deployment Manager | Next >> | | | |

The Add/Create/Download/Delete Packages page opens.

- 2. Click Add.
- 3. Browse to the *NAS2_Provider-package.zip* file, click *Upload*, and then click *Finish*.

| Package Manager - Upload The iWay Package Manager is used to manage the addition/deletion of functionality within an iWay Service Manager configuration. Packages are specially designed archive files that contain components, metadata and configuration information. Packages are installed/uninstalled to apply their contents to a specific server instance. | | | |
|--|---|--|--|
| Packages | | | |
| Select a package to upload. * | C:\NAS2_demo\NAS2_Provider-package.zip Browse | | |
| Upload Reset | | | |

4. Return to the *Package Manager* page, select the *Install/Uninstall Packages* option, and then click *Next*, as shown in the following image.

| Applications Business Activity Monitor Enterprise Index | Package Manager The iWay Package Manager is used to manage t are specially designed archive files that contain apply their contents to a specific server instance Choose Operation |
|---|--|
| Trading Partner Manager | Package Manager |
| Diagnostics Log Viewer Monitors | Install/Uninstall Packages Add/Create/Download/Delete Packages Next >> |
| iWay Service Monitor Imports/Exports Package Manager Archive Manager | |

5. Click *Add*, as shown in the following image.

| Applications | Package Manager - Install/Uninstall Packages The iWay Package Manager is used to manage the a | | | | |
|------------------------------|--|--|--|--|--|
| Business Activity Monitor | below are the packages that are currently installed i | | | | |
| Enterprise Index | Packages | | | | |
| Trading Partner Manager | Filter By Server Where Server Vere Equal | | | | |
| | Name | | | | |
| Diagnostics | base:MWI_Fashion_62642513 | | | | |
| Log Viewer | base:XDFailAgentCase61272513 | | | | |
| Monitors | test2:MWI_Fashion_62642513 | | | | |
| iWay Service Monitor | | | | | |
| Imports/Exports | < Back Add Delete | | | | |
| Package Manager | | | | | |

6. Select *NAS2_ProviderPackage* and click *Next*.

| Package Manager - Install/Uninstall Packages The iWay Package Manager is used to manage the addition/o below are the packages that are currently available to be ins | | | | |
|--|-----|--|---------|--|
| Г | Pac | kages | | |
| | | Name | Version | |
| | 0 | Expeditors_Security_Provider_package | N/A | |
| | 0 | MWI_Fashion_62642513 | N/A | |
| | ۲ | NAS2_ProviderPackage | 1.0 | |
| | 0 | iway_package_informix_oracle_cdc_sregs | 1.0 | |
| | 0 | nas2keystore | N/A | |
| (| << | Back Next >> | | |

- 7. Click *Next* again.
- 8. Select the iSM service (configuration) to which you want to apply the Provider package (for example, *base*) and then click *Next*.

| Package Manager - Install/Uninstall Packages The iWay Package Manager is used to manage the below are the packages that are currently available | | | | |
|---|--|--|--|--|
| Packages Select a configuration to deploy package to. In the ev | | | | |
| If package exists, keep preexisting components 💟 | | | | |
| Server Name | | | | |
| FromBase | | | | |
| FromRaw | | | | |
| 🔽 base | | | | |
| 🔲 test | | | | |
| 🔲 test2 | | | | |
| << Back Next >> | | | | |

9. Click *Finish*.

Note: Stop and then start the iSM service (configuration), for example, *base*, before proceeding to the next step.

10. From the iSM Administration Console, navigate to *Server* and click *Security Provider* in the left pane.

The Security Provider page opens, as shown in the following image.

| Properties | Security Provider | station for the system recourses and for more | and that made through t | ha camuan | | |
|-------------------------------|---|---|-------------------------|----------------|--|--|
| General Properties | Security components provide protection for the system resources and for messages that pass through the server. | | | | | |
| Java Properties | Keystores | | | | | |
| Settings | Keystores - Keystores are standard repositories of security certificates that are used in encryption and digital signature operations. The default SSL keystore can be referenced by an SSL Context provider or directly by some secure protocol | | | | | |
| General Settings | components. | | | | | |
| Java Settings | Name | Description | Default SSL | Default S/MIME | | |
| Register Settings | | - | | | | |
| Trace Settings | <u>mypkcs12keystore</u> | PKCS12 keystore pwd = password | 19 | 19 | | |
| Log Settings | GraftechKeystoreP12 | | ò | ò | | |
| Path Settings | AKZO keystore | | ò | là | | |
| Data Settings | | | A | | | |
| Backup Settings | SSIKEY | | | | | |
| roviders | <u>ssikey2</u> | | lê | ß | | |
| Data Provider | New Delete | | | | | |
| Services Provider | | | | | | |
| Directory Provider | | | | | | |
| Security Provider | SSL Contexts | | | | | |
| XML Namespace Map Provider | SSL Contexts - SSL Contexts define the parameters used for transport layer security.Once a context is defined, it can be applied to IP-based protocols such as HTTP or AS2. When configuring a secure protocol component, leave the SSL Context Describer parameters black to reference the address the configuring as secure protocol component. | | | | | |
| Pooling Providers | | | | | | |
| Authentication Realms | Name | Description | De | fault | | |
| Data Quality | test test | | | lê (| | |
| Providers | ssl_provider | | è | | | |
| acilities | | | | | | |
| Activity Facility | New Delete | | | | | |

11. Set the *sslkey* keystore as the default SSL and S/MIME provider. Set *ssl_provider* as the default SSL Contexts.

Building and Deploying the NAS2 Channels

This section describes how to build and deploy the NAS2 channels.

1. From the iSM Administration Console, navigate to *Registry* and then click *Channels* in the left pane under the Conduits section, as shown in the following image.

| iWay Service Ma _{Server <u>Registry</u> De} | nager ployments Tools | 1anaged Servers base 💌 Re |
|--|--|--|
| Conduits Channels | Channels Channels are the pipes through which messages flow in iW (Transformers + Processes), controlled by Routing Rules a | ay Service Manager. A Channel is defined as a nar nd bound to Ports (Listeners/Emitters). |

2. Select the check boxes next to both NAS2 channels (*NAS2.channel* and *NAS2_file_emit*). Click *Build* at the bottom of the page, as shown in the following image.

| NAS2.channel | | Q | Q | 6 | none |
|------------------------------|---|----------|----------|---|------|
| ☑ <u>NAS2 file emit</u> | 6 | <u>0</u> | Q | Ð | none |
| | | ^ | <u> </u> | ~ | |
| Add Delete Rename Copy Build | | | | | |

The following build results are displayed:

Channels

Channels are the pipes through which messages flow in iWay Service Manager. A Channel is defined as a named container of Routes (Transformers + Processes), controlled by Routing Rules and bound to Ports (Listeners/Emitters).

| tessage level | Message |
|----------------------|---|
| nfo | Start |
| Info | Validating Channel |
| Info | Channel is valid |
| Info | Validating Inlet |
| Info | Inlet is valid |
| Info | Validating Routes |
| Info | Routes are valid |
| Info | Validating Outlets |
| Info | Outlets are valid |
| Info | Build Successful |
| Info | End |
| Info | Channel archive C:\IWAY60~1\etc\repository\manager\car\NAS2_file_emit\NAS2_file_emit.22\NAS2_file _emit.car has been created/updated |
| NAS2.channel - | |
| Build result for cha | annei |
| message level | Message Stort |
| Info | Validating Channel |
| Info | |
| Iniu | Validation Islant |
| Inio | Vandating met |
| Info | Velideting Deutee |
| Info | Partea era valid |
| Info | Notices are value |
| Info | Valuaring Outlets |
| Info | |
| Info | |
| UIII | |
| 1 | |
| Info | channel archive C:\\\VVAYbU~T\etc\repository\manager\car\VAS2.channel\\VAS2.channel.23\\VAS2.channel. car has been created/updated |

3. Click *Deployments* at the top of the page, as shown in the following image.

| iWay Service Manager | | | | | | | | |
|----------------------|---|--|--|--|--|--|--|--|
| Server Registry | <u>Deployments</u> Tools | | | | | | | |
| | | | | | | | | |
| Management | C Click to manage channel deployments across t Minstances of the server. | | | | | | | |
| Channels | | | | | | | | |
| Services | Channel Management The channels listed below are deployed. | | | | | | | |

- 4. Click *Deploy* at the bottom of the page.
- 5. Select *NAS2.channel* and then click *Deploy*, as shown in the following image.

| NAS2.channel | Dec 17 2010 11:09 AM | http://csswxz2gb | 23 | | |
|-----------------------------|----------------------|------------------|----|--|--|
| NAS2_file_emit | Dec 17 2010 11:09 AM | http://csswxz2gb | 22 | | |
| << Back Deploy Get Versions | | | | | |

Repeat this deploy step for the *NAS2_file_emit* channel.

6. Start both channels (*NAS2.channel* and *NAS2_file_emit*) from the Channels page, as shown in the following image.

| NAS2.channel | nas2 | Dec 17 2010 11:29 AM | 23 | × | \checkmark |
|---------------------------------|-------|----------------------|----|---|--------------|
| MAS2 file emit | file | Dec 17 2010 11:30 AM | 22 | × | \checkmark |
| Deploy Undeploy Redeploy Repair | Start | Stop | | | |

7. After both channels have started, you can drop a file (with a .xml extension) into the input directory you created on your file system for the NAS2 File Listener. For example:

C:/file/in

If your channels have been deployed and started successfully, you will find a Message Disposition Notification (MDN) file located in the following directory:

C:/file/mdn_signed/