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 use case 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:
    - *BC16_141.zip*
    - *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 use case 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/

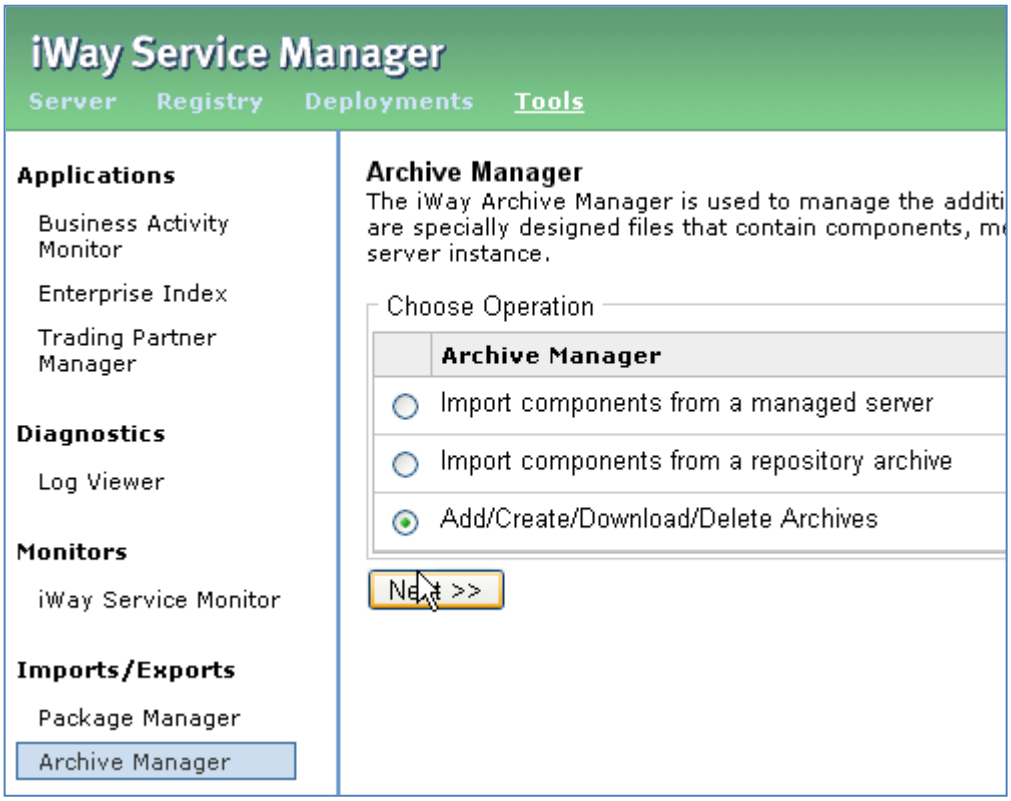
Installing the Channel Archive (NAS2_Demo_Channel_Archive.zip)

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:

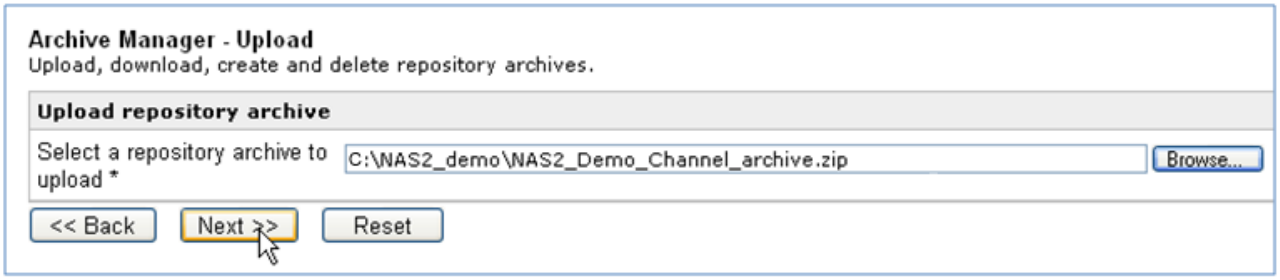
   C:\NAS2_demo

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.



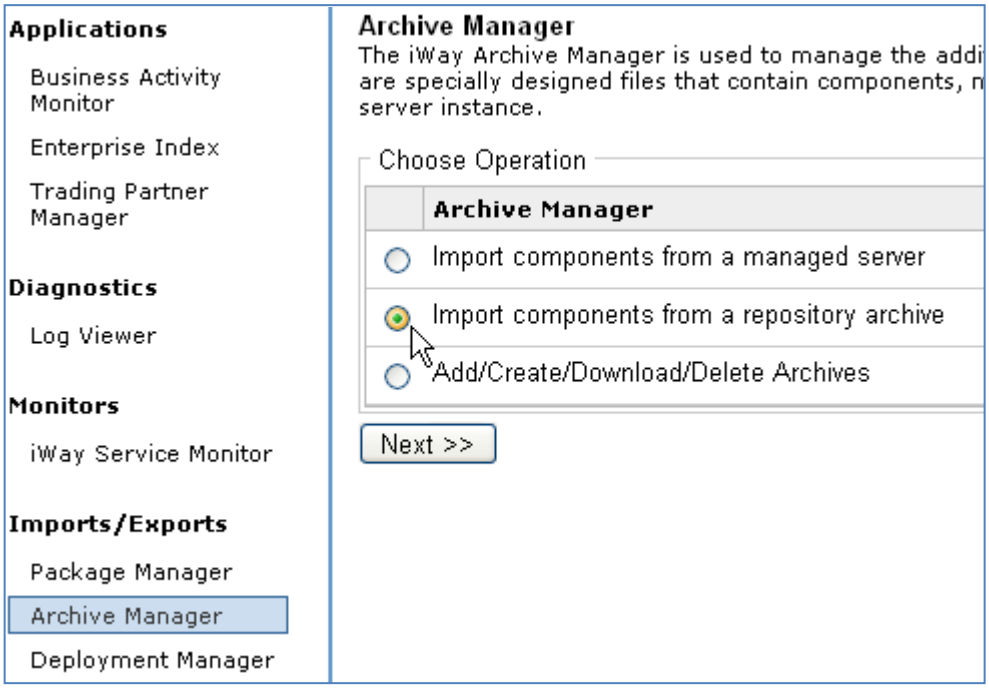
3. Click *Add*.

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



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.



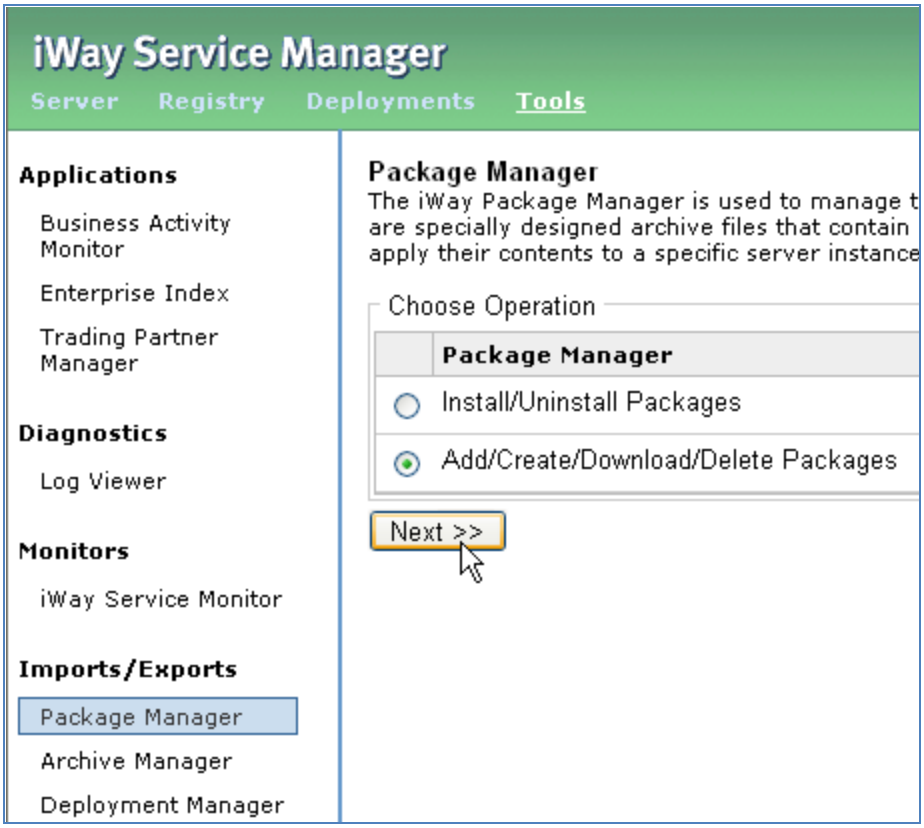
The Archive Manager - Import components from a repository archive page opens.

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).

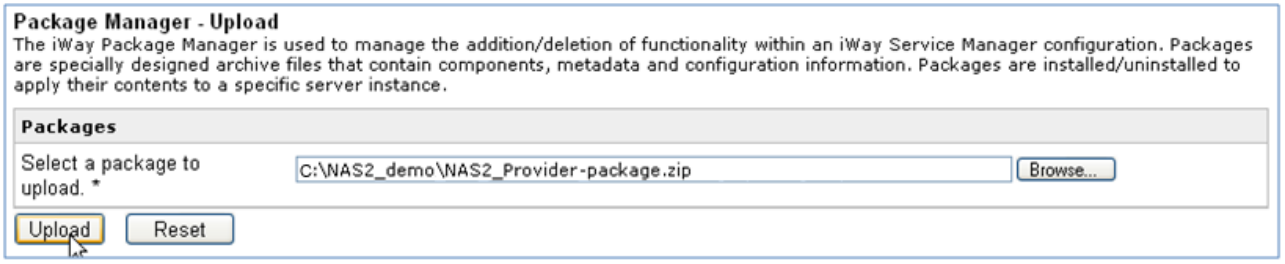
1. From the iSM Administration Console, navigate to *Tools*, click *Package Manager* in the left pane, select the *Add/Create/Download/Delete Packages* option, and then click *Next*, as shown in the following image.



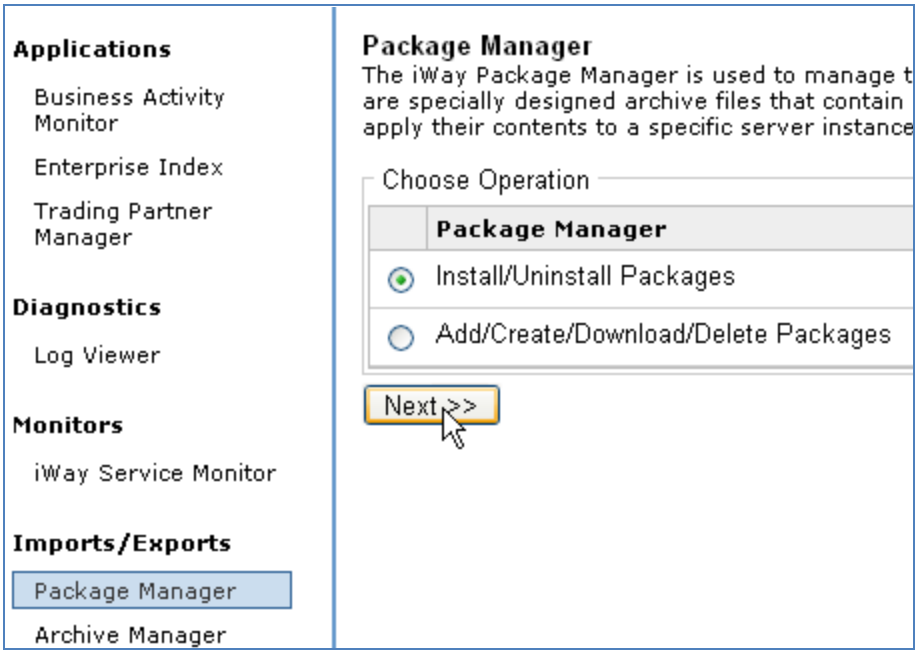
The Add/Create/Download/Delete Packages page opens.

2. Click *Add*.

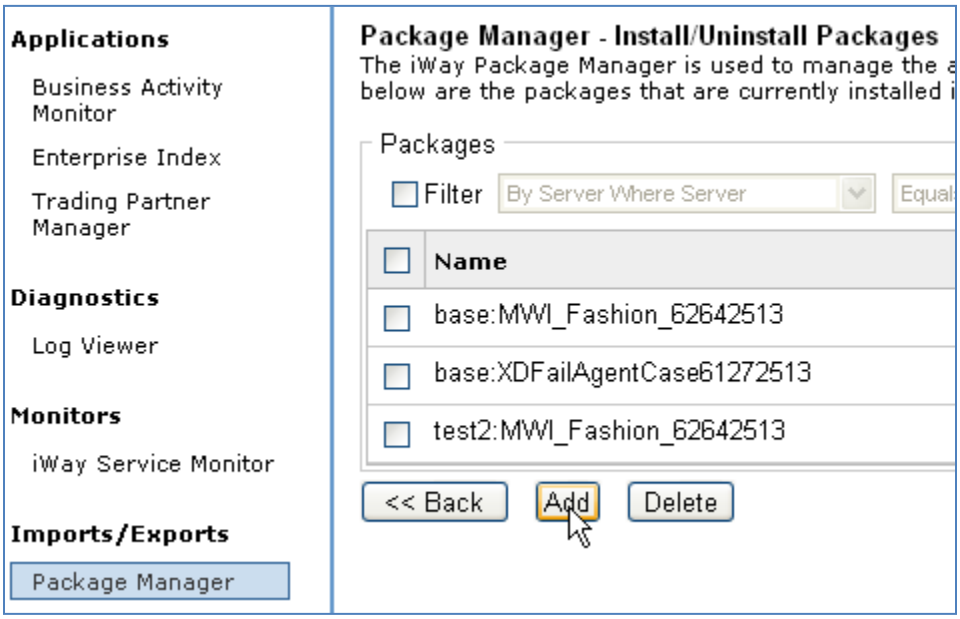
3. Browse to the *NAS2_Provider-package.zip* file, click *Upload*, and then click *Finish*.



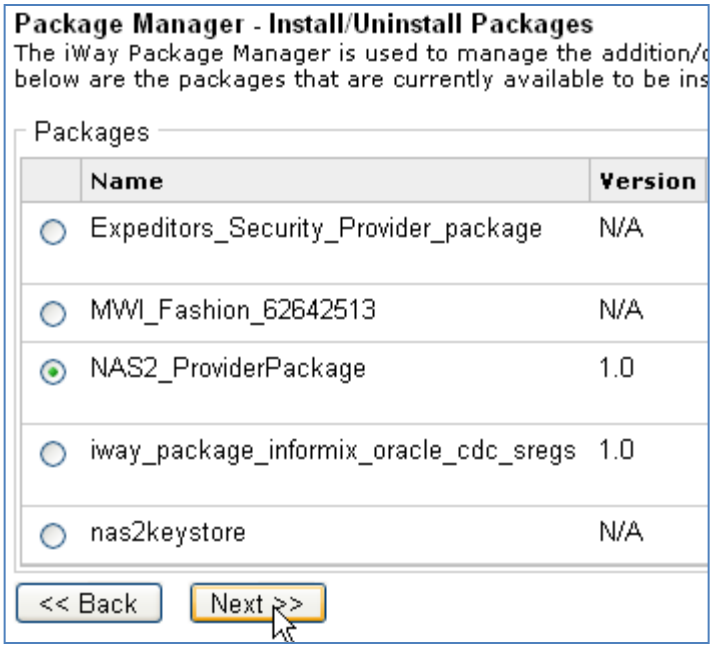
4. Return to the *Package Manager* page, select the *Install/Uninstall Packages* option, and then click *Next*, as shown in the following image.



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

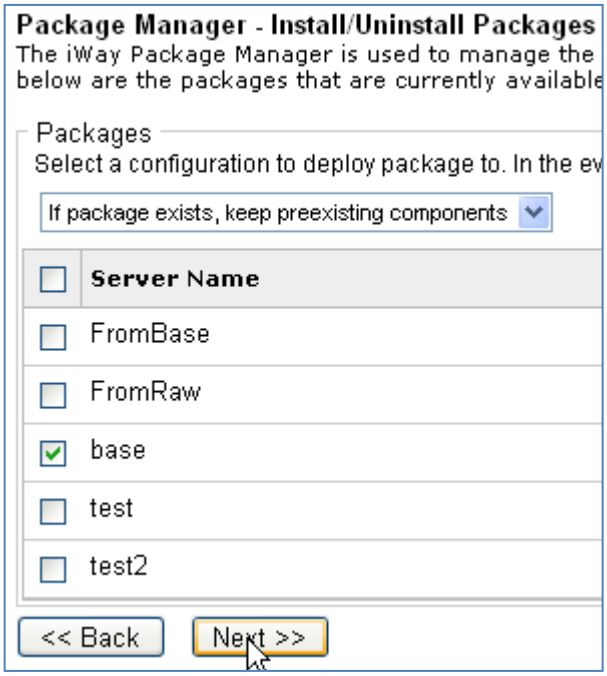


6. Select *NAS2_ProviderPackage* and click *Next*.



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*.

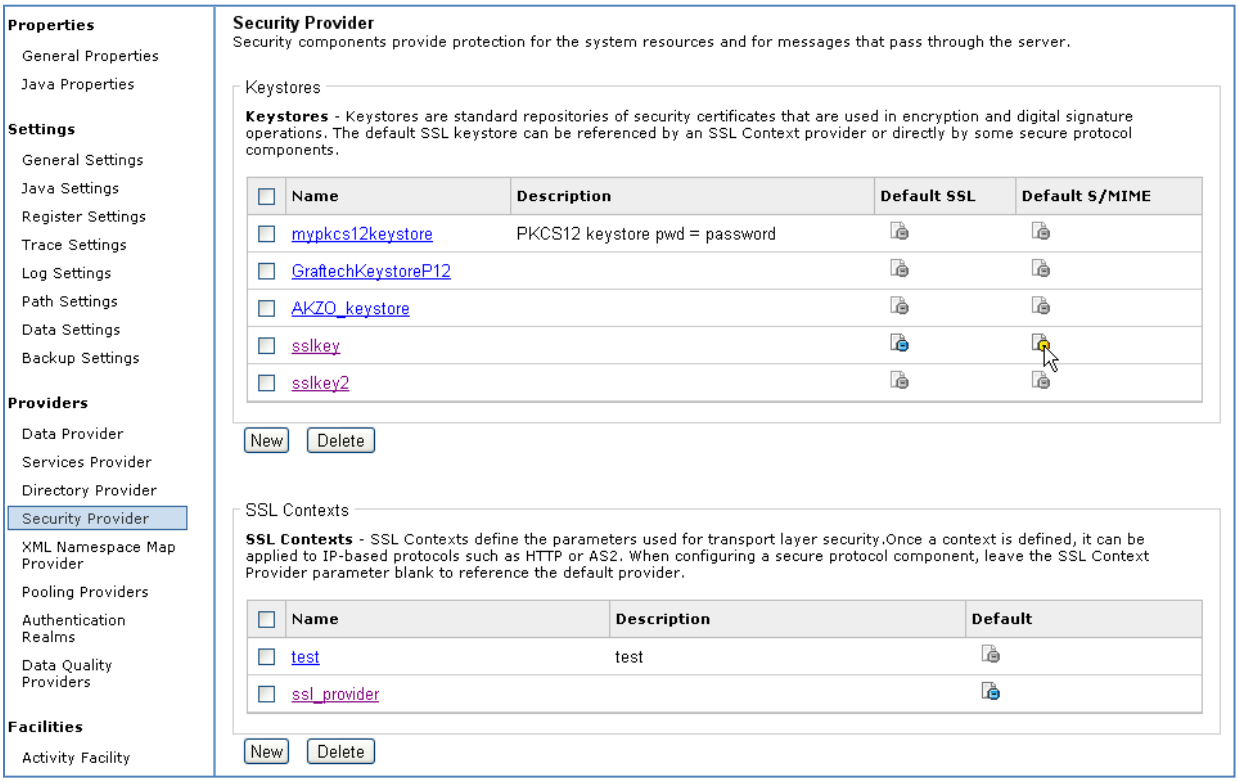


9. Click *Finish*.

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.

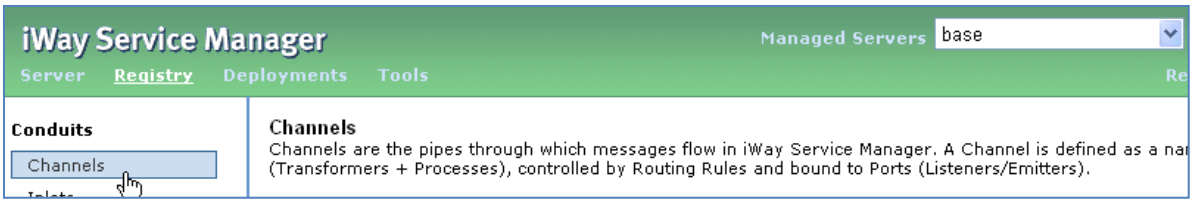


11. Set the *sslkey* keystore as the default SSL and S/MIME provider. Set *ssl_provider* as the default SSL Contexts.

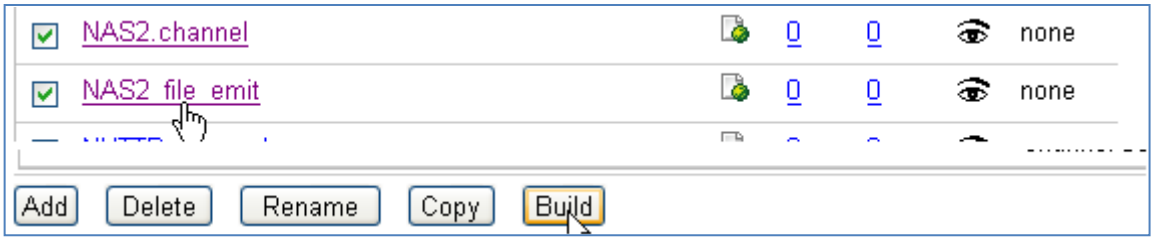
Building and Deploying the NAS2 Channels

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

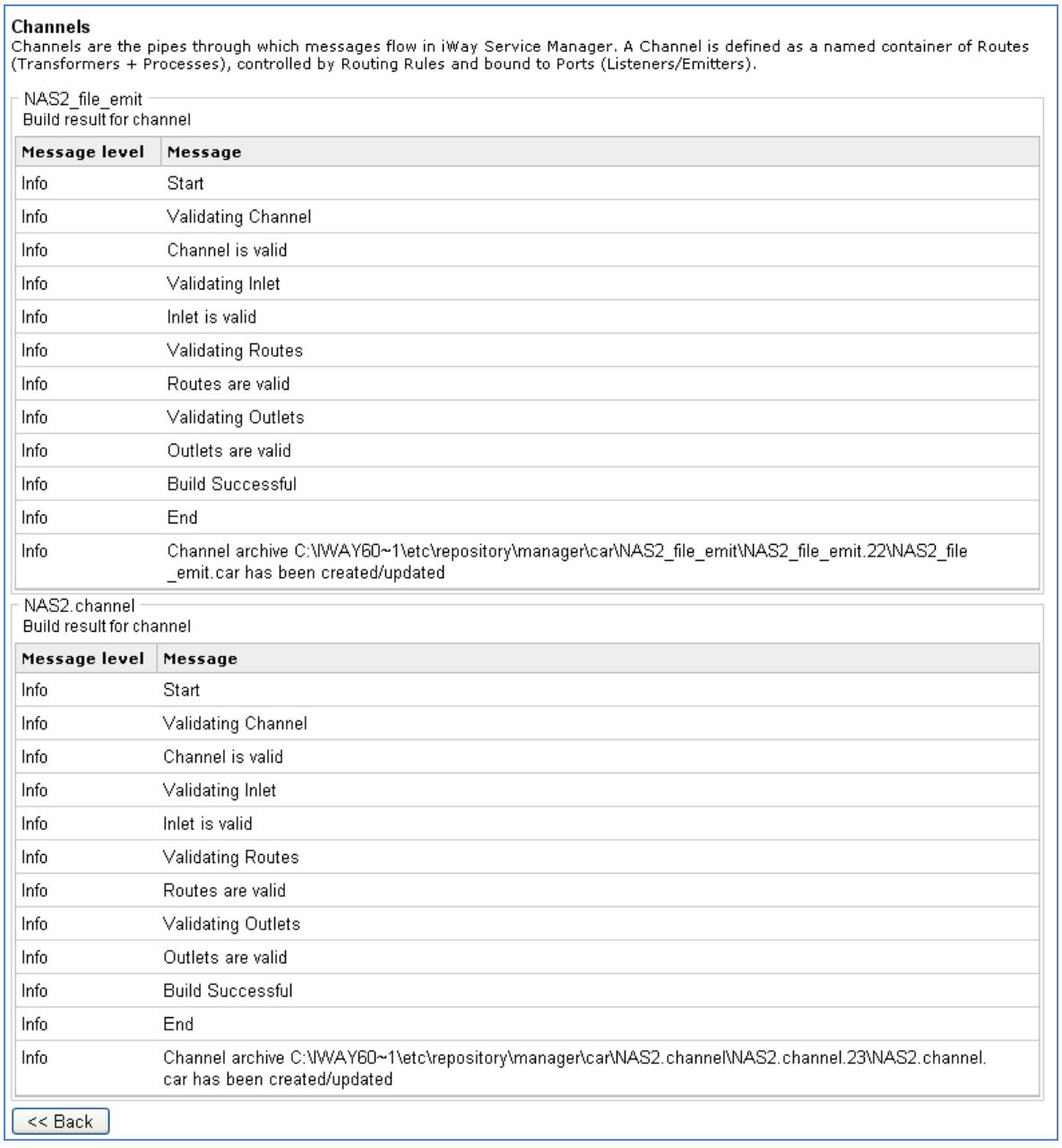
1. From the iSM Administration Console, navigate to *Registry* and then click *Channels* in the left pane under the Conduits section, as shown in the following image.



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.



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).

NAS2_file_emit

Build result for channel

Message level	Message
Info	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

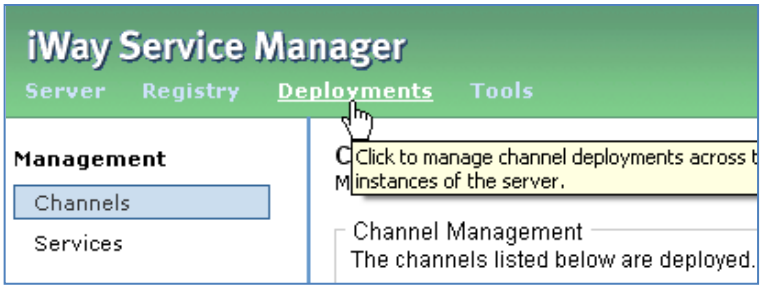
NAS2.channel

Build result for channel

Message level	Message
Info	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.channel\NAS2.channel.23\NAS2.channel.car has been created/updated

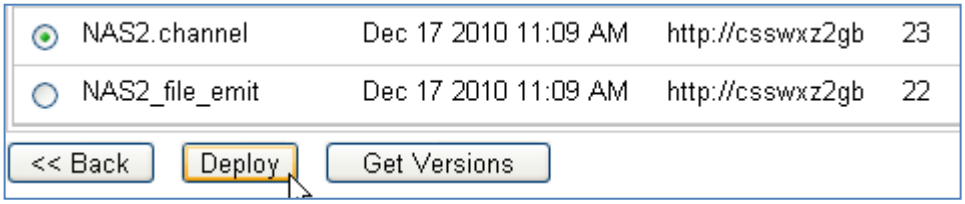
<< Back

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



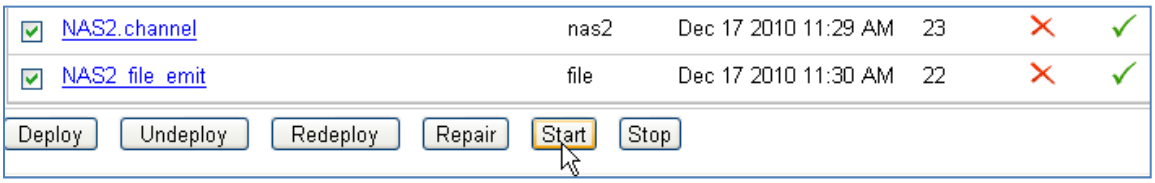
4. Click *Deploy* at the bottom of the page.

5. Select *NAS2.channel* and then click *Deploy*, as shown in the following image.



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.



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/