

Sterling Standards Library

Using AS3

Version 5.2

Build 5201

Sterling Commerce
An IBM Company

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Using AS3 with Application

AS3 Overview

Application enables you to send and receive AS3 messages either through a custom written business process or through a schedule created during the contract creation phase. AS3 (Applicability Statement 3) systems exchange Electronic Data Interchange-Internet Integration (EDIINT) messages using FTP as the transport method (EDIINT messages are either MIME or S/MIME (secure MIME) messages).

Use of Message Disposition Notifications

A *message disposition notification (MDN)* is a receipt document that contains the original message ID of a message and status information about the original message. EDIINT is a family of protocols developed by the Internet Engineering Task Force (IETF) for securely packaging and transporting messages containing business data over the Internet, using S/MIME.

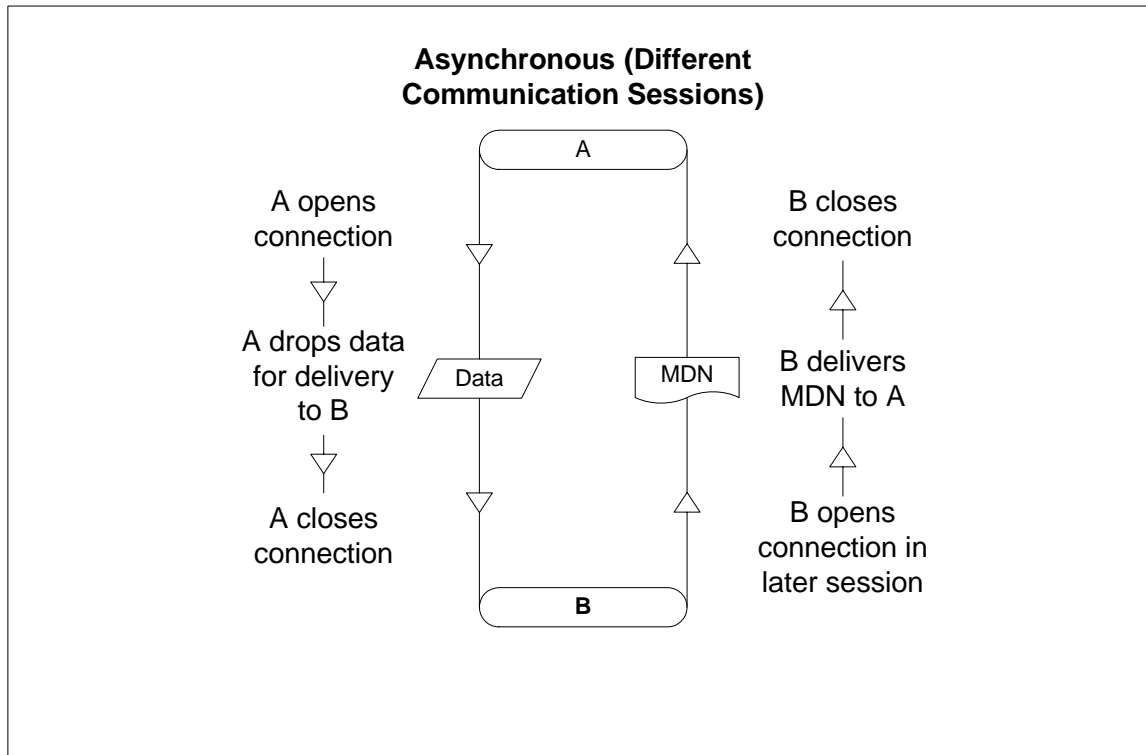
MDNs that conform to the EDIINT specifications can contain a cryptographic hash calculated over the content of the message after EDIINT processing. An MDN can be either:

- ◆ Signed – Contains an encrypted digital signature of the receiver.
- ◆ Unsigned – Contains only the original message ID and not a digital signature.

Signed MDNs that conform to the EDIINT specifications can provide acknowledgement of receipt in addition to message status information. A valid digital signature over an EDIINT MDN shows that the MDN was sent by the trading partner possessing the relevant key pair. It also shows that the signed area of the MDN (which includes the cryptographic hash calculated over the received content) was not altered after signing. A message sender compares the hash in the MDN with the hash calculated when the message was generated. If the hashes match, the sender knows that the receiver received the content and has the MDN to demonstrate the status.

Whether signed or not, MDNs do not show that the received message content conforms to EDI or other business document formatting requirements.

MDNs are sent asynchronously in which they are returned at a later time during a different communication session. As shown in the following diagram, A initiates the connection to B and drops the data for delivery to B. A closes the connection and does not wait for an MDN from B during the same communication session. In a later session, B initiates a connection to A, and sends an MDN to A. When the MDN is delivered, B closes the connection.



The majority of the AS3 functionality in Application requires the use of the Mailbox features. Therefore, you must purchase the Mailbox license to use AS3 in Application. For inbound AS3 messages, payloads are extracted and stored in a designated mailbox. The payload will only be stored in the mailbox upon successful delivery of the MDN (if required) to the trading partner. For outbound AS3 message exchanges, payloads are encapsulated within the MIME or S/MIME message and sent to the trading partner.

The Bulk Message Generation feature allows you to enable the schedule of the business process to collect payloads from a specified folder, create an AS3 message, and send it to the intended trading partner. Application supports initiating AS3 message exchanges in a scheduled manner. The option of searching a specified folder for any files present within it or matching a file pattern is configured when you create an AS3 contract.

A system generated business process is created and added to the schedule. This schedule is enabled if the option to enable it was selected during the configuration of the Bulk Message Generation option. The scheduled business process is written to collect the documents from a specified folder and invoke a business process containing the AS3 Build service to create the AS3 message and initiate a message exchange with the trading partner as specified in the AS3 contract.

To prevent system performance degradation that may occur if there are too many files to process at once or if the system keeps trying to send AS3 messages to an unavailable FTP Server, Application allows you to throttle the AS3 message exchange rate by limiting the number of message exchanges per cycle and to schedule optimal cycle periods that the system can handle. You can also throttle the AS3 message exchange rate by limiting the number of files to be picked up. Using throttling, if an FTP Server is down or too busy to accept any new connections, Application sets a temporary lock on the AS3 contract and suspends message transmission for the period of time you specify. If the lock is enabled, Application does not initiate

any message exchange even when the schedule is executed, and only initiates a message exchange when the lock is disabled from the AS3 contract. This ensures that system resources are not wasted in attempts to connect to an unavailable FTP Server.

Application also allows you to configure a maximum retry count for sending AS3 message and MDNs. This connection retry logic covers all possible transmission errors such as server unavailability, authentication failures, handshake failures, network surge during data transfer, generic file system errors, and so forth. If you enable the retry option, a retry attempt is executed if a failure is encountered at any stage of the transmission process for a message or MDN.

Application ensures that MDNs have been sent to a trading partner before an AS3 payload is placed into the PAYLOAD mailbox to be processed by the business process. If the MDN was not sent, the payload is not placed into the PAYLOAD mailbox. Instead, it is placed into an Error mailbox for tracking only, and subsequent messages from that trading partner as a result of the failed MDN are not recorded as a Duplicate entry, but are considered to be a new message.

Note: This happens only if the Sender requests for an MDN for the message sent. A Sender can also send messages without requesting for an MDN.

AS3 messages having a message identifier that is already recorded in Application are considered to be a duplicate if the payload of the original message was placed into the PAYLOAD mailbox. MDNs are either sent directly to a trading partner, or are placed in an outgoing mailbox for the trading partner to pick up within a specific time period.

Restarting a Business Process and Resending Messages with the Original Message ID

Application allows you to easily resend messages because the building and sending of messages is all handled by the predefined business processes. This enables you to resend messages using the original message identifier by simply restarting the AS3MessageInitiation business process. The business process is invoked by the AS3 Build Service and has the AS3 message as the primary document. You need to select the failed parent business process and then select the child business processes which have been invoked and then restart the AS3MessageInitiation business process. To restart a business process, you need to select the failed business process, click on the Process ID to display the executed steps, and then select the Restart option from the Action drop down list.

How Application Supports AS3

This table describes how Application supports AS3:

Functionality	Details	Action You Need to Take to Implement AS3
Services	<ul style="list-style-type: none"> ◆ The AS3 Build service is used to build an AS3 message, including constructing the message header. ◆ The AS3 Parse service is used to parse an AS3 message. ◆ The FTP Server adapter transports the AS3 message to the trading partner. ◆ The File System adapter writes the AS3 message to a file system. 	<ul style="list-style-type: none"> ◆ For the AS3 Build service, update the predefined service configuration, if necessary. ◆ For the AS3 Parse service, update the predefined service configuration, if necessary. ◆ For the FTP Server adapter, create a new instance if necessary. ◆ If used, for the File System adapter, create a new instance if necessary.
Business processes	<ul style="list-style-type: none"> ◆ AS3MessageInitiation predefined business process ◆ AS3MDNInitiation predefined business process ◆ AS3MbxProcessing predefined business process 	<ul style="list-style-type: none"> ◆ Write a business process to poll the designated mailbox for inbound payloads and to use the payload according to your business requirements. ◆ You do not need to modify any of the predefined business processes.
Trading Partners	<ul style="list-style-type: none"> ◆ The AS3 Partner Creation wizard enables you to create an AS3 trading partner organization, trading partner profiles, and contracts between different trading partners. ◆ The AS3 Partner Creation wizard enables you to schedule bulk message generation. ◆ The AS3 Partner Creation wizard can automatically create the necessary mailboxes, routing rules, and schedules. 	<ul style="list-style-type: none"> ◆ Create the appropriate AS3 organization and profile for your trading partners. ◆ Create a contract for each trading partner relationship. <p>Note: Two AS3 contracts are automatically created when you use the AS3 Partner Wizard to create a trading partner contract.</p>
Monitoring	Search for AS3 information and monitor AS3 messages.	Use the Application search functionality to search for AS3 information.

Prerequisite Knowledge

The following are prerequisites to using Application with the AS3 standard:

- ◆ The audience using this software should be familiar with Application (including the Mailbox feature and FTP Server configuration) and the AS3 standard.

Note: This documentation is not intended to explain the AS3 standard.

- ◆ The customer is responsible for purchasing a Mailbox license.

Using AS3 with Application

To use AS3 with Application, you must complete the following tasks:

1. Create an instance of the FTP Server adapter.
2. Write a business process to poll the designated mailbox for inbound payloads and to use the payload according to your business requirements.
3. Create a trading partner organization and profile.
4. Create a contract for each trading partner relationship.

Note: Application automatically creates two AS3 trading partners in this process.

5. Create mailboxes if you did not create the AS3 mailbox structure and mailbox names automatically when you created the partner profiles.
6. Create routing rules for inbound AS3 messages and inbound AS3 MDNs if you did not create the AS3 routing rules automatically when you created the partner profiles.
7. Assign the appropriate user permissions to your AS3 mailboxes and routing rules if you specified that they should be automatically created when you create a trading partner profile. You need to assign permissions for all the partners.
8. Send and receive AS3 messages to and from your trading partners.
9. To track AS3 messages or data flows, use the monitoring functionality.

AS3 Business Processes

Overview

To help you accomplish your business goals, Application provides predefined business processes (in conjunction with predefined services) to implement the AS3 protocol. These predefined business processes are automatically installed and configured when you install Application.

The AS3 implementation uses these predefined business processes along with services to build and transmit messages to trading partners. After Application extracts files from mailboxes, it launches business processes that:

- ◆ Encapsulate the data files into an AS3-compliant message.
- ◆ Attempt to transmit those messages through FTP.
- ◆ Potentially process responses or acknowledgements to those messages.

Application provides business processes for sending messages and checking for acknowledgements (Message Disposition Notifications, MDNs).

The predefined AS3 business processes include enhanced retry logic for each partner. This disables the Application from attempting to send messages to the system of a trading partner when it is down. These business processes can detect several types of errors and can inform users and restage data files if errors occur. The business processes attempt to retry in the following situations:

- ◆ When what is potentially a transient FTP error is detected based on the return code.
- ◆ When you are collecting and saving data using the file system, a scheduled business process invokes the File System adapter, which collects data files from the file system.

The following steps summarize the activities completed by business processes when sending messages:

1. Business processes send messages requesting synchronous receipts, asynchronous receipts, or no receipts.
2. Based on the receipt options specified for a trading partner, the business processes handle business documents, as appropriate.
3. When receiving messages, the business processes complete the following activities:
 - a. Parse messages, generate and send receipts.
 - b. Extract business documents and place them in the payload mailbox.

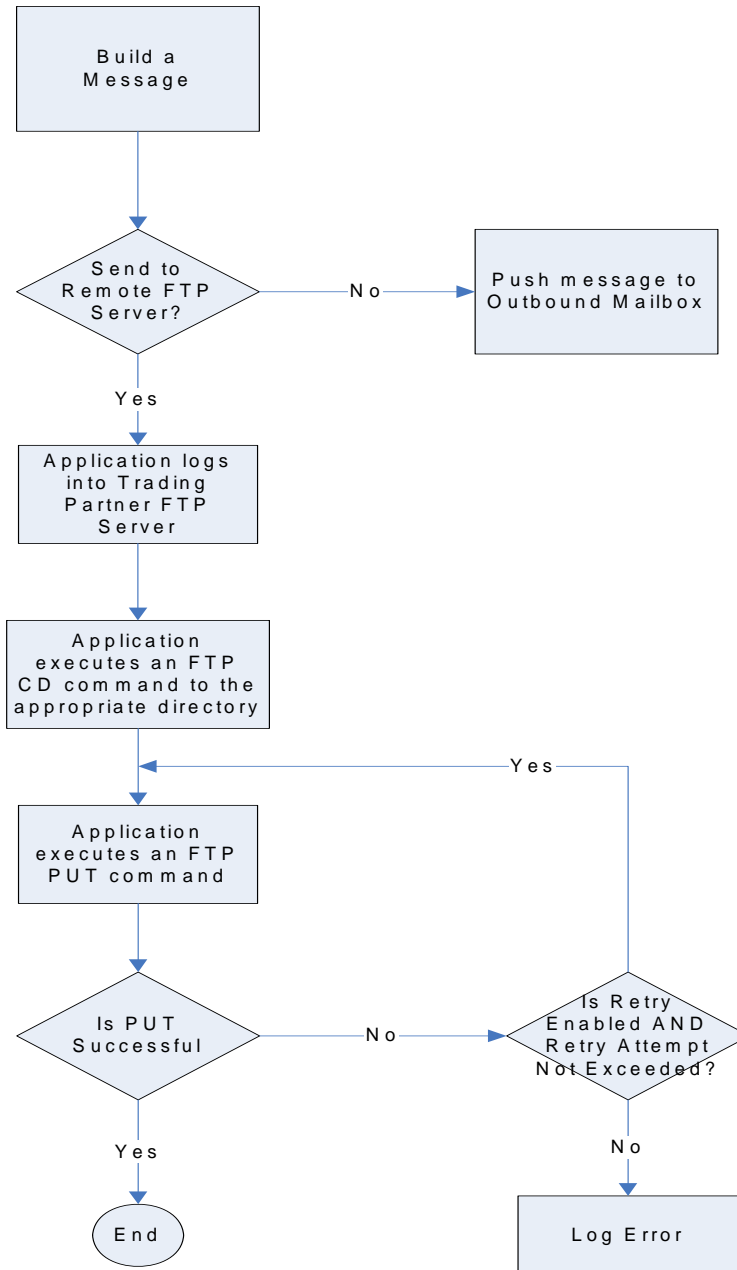
The predefined business processes are initiated by services during AS3 processing and do not require you to modify them. The following table lists business goals for the predefined AS3 business processes:

Business Process	Business Goals
AS3MessageInitiation	Used by the AS3 Build Service to send AS3 messages, retrieve MDNs, and add AS3 messages into mailboxes.
AS3MDNInitiation	Used by the AS3 Build Service to send AS3 MDNs, retrieve MDNs, and add AS3 MDNs into mailboxes.

Business Process	Business Goals
AS3MbxProcessing	Invoked through the routing rule that you create (either automatically through the partner profile create process or manually) that is specified on the inbound AS3 message mailbox and the inbound AS3 MDN mailbox. For each extracted message, the AS3MessageParsing business process is invoked to process the message.

AS3MessageInitiation Business Process

The AS3MessageInitiation business process is used by the AS3 Build Service to send AS3 messages, retrieve MDNs, and add AS3 messages into mailboxes. The AS3MessageInitiation business process is initiated as part of the following inbound process flow:



This table lists the configuration parameters for the AS3MessageInitiation business process:

Parameter	Default	Description
Document Tracking	False	When document tracking is enabled for a business process, tracking information is carried with the message throughout the process, and the tracking information persists with the message regardless of the persistence level you configured globally for Application.

Parameter	Default	Description
Set onfault processing	False	Onfault processing allows the process to immediately execute the onfault activity specified in the process, even if the process has not yet reached that step in the process. For example, if a process fails at step 3, but the onfault activity is specified in step 7, if onfault processing is enabled, the process proceeds to the step 7 onfault rather than halting at step 3.
Queue	4	Application enables you to set performance optimizations by queue, defining queue levels to allocate resources. This number indicates the previously allocated queue level that you want for this business process model.
Persistence Level	System Default	The level of data to retain for generating a status report that describes each step that the business process completes. System default indicates that the configuration is already defined in Application to retain data.
Recovery Level	Manual	The level of recovery for this business process if the business process should halt during execution. Manual requires you to resume or restart the business process manually.
Document Storage Type	System Default	The level of document storage for messages that process when the business process runs. System Default specifies to store messages in the file system or database, according to how you configured archiving and purging in Application.
Life Span	Life Span Days — 2 Life Span Hours — 0 Life Span Type — System Level Removal Method — Archive	The length of time, in days and hours, to retain the data in Application, along with the life span type and removal method.
Complete by Deadline	None Available Note: To set a deadline you must change it in the business process.	Complete by – The deadline time, in hours and minutes, by which the business process must complete. <ul style="list-style-type: none"> ◆ First Notification: Hours and Minutes – Whether to receive notification before a business process deadline. ◆ Second Notification: Hours and Minutes – Whether to receive another notification before a business process deadline.
Event Reporting Level	Full	The level of event reporting that is retrieved for this business process when it runs. Full specifies to generate events for the business process, including the business process start and end time, start and end times for all services or services running as a result of this business processes, and any resulting errors and exceptions.

The following BPML code makes up the AS3MessageInitiation business process:

Note: You should not change this BPML code unless you need to change the process flow.

```
<process name="AS3MessageInitiation">
```

```

    <rule name="isSendOperation">
      <condition>string(/ProcessData/AS3MessageInitiation/SendOperation/text()) =
'YES'</condition>
    </rule>
    <rule name="isPutToMailbox">
      <condition>string(/ProcessData/AS3MessageInitiation/PutToMailbox/text()) =
'YES'</condition>
    </rule>
    <rule name="isPickOperation">
      <condition>string(/ProcessData/AS3MessageInitiation/PickupMessage/text()) =
'YES'</condition>
    </rule>
    <rule name="isSendAndPickupMDN">
      <condition>string(/ProcessData/AS3MessageInitiation/SendAndPickupMDN/text())
= 'YES'</condition>
    </rule>
    <rule name="updateEDIINTTransactionStatus">
      <condition>string-length(string(/ProcessData/AS3MessageInitiation/MsgMdnCorrelationI
d)) > 0</condition>
    </rule>

    <sequence>
      <!-- Determines to add AS3 message to outgoing mailbox
-->
      <choice name="Determine the operation to perform">
        <select>
          <case ref="isPutToMailbox" negative="false"
activity="PutToMailboxOperation"/>
        </select>
        <sequence name="PutToMailboxOperation">
          <operation name="Invoke Sub_AS3PutMessageToMbx to add message into
mailbox">
            <participant name="InvokeBusinessProcessService"/>
            <output message="Xout">
            <assign to="." from="*"></assign>
            <assign to="WFD_NAME">Sub_AS3PutMessageToMbx</assign>
            <assign to="INVOKE_MODE">INLINE</assign>
            <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
            </output>
            <input message="Xin" >
            <assign to="." from="*"></assign>
            </input>
          </operation>
        </sequence>
      </choice>

      <!-- Determines to pickup message from partner FTP Server
-->
      <choice name="Determine the operation to perform">
        <select>
          <case ref="isPickOperation" negative="false"
activity="PickupMessageOperation"/>
        </select>
        <sequence name="PickupMessageOperation">

```

```

partner">
    <operation name="Invoke Sub_AS3PickupMessage to pickup message from
    <participant name="InvokeBusinessProcessService"/>
    <output message="Xout">
    <assign to="." from="*"></assign>
    <assign to="WFD_NAME">Sub_AS3PickupMessage</assign>
    <assign to="INVOKE_MODE">INLINE</assign>
    <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
    </output>
    <input message="Xin" >
    <assign to="." from="*"></assign>
    </input>
    </operation>
    </sequence>
</choice>

<!-- Determines to send message to partner FTP Server
-->
<choice name="Determine the operation to perform">
    <select>
        <case ref="isSendOperation" negative="false"
activity="SendMessageOperation"/>
    </select>
    <sequence name="SendMessageOperation">
        <operation name="Invoke Sub_AS3SendMessage to send message to partner">
        <participant name="InvokeBusinessProcessService"/>
        <output message="Xout">
        <assign to="." from="*"></assign>
        <assign to="WFD_NAME">Sub_AS3SendMessage</assign>
        <assign to="INVOKE_MODE">INLINE</assign>
        <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
        </output>
        <input message="Xin" >
        <assign to="." from="*"></assign>
        </input>
        </operation>
    </sequence>
</choice>

<!-- Determines to send message and pickup MDN
-->
<choice name="Determine the operation to perform">
    <select>
        <case ref="isSendAndPickupMDN" activity="SendAndPickupMDN"/>
    </select>
    <sequence name="SendAndPickupMDN">
        <operation name="Invoke Sub_AS3SendMessage to send message to partner">
        <participant name="InvokeBusinessProcessService"/>
        <output message="Xout">
        <assign to="." from="*"></assign>
        <assign to="WFD_NAME">Sub_AS3SendMessage</assign>
        <assign to="INVOKE_MODE">INLINE</assign>
        <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
        </output>
        <input message="Xin" >
        <assign to="." from="*"></assign>

```

```

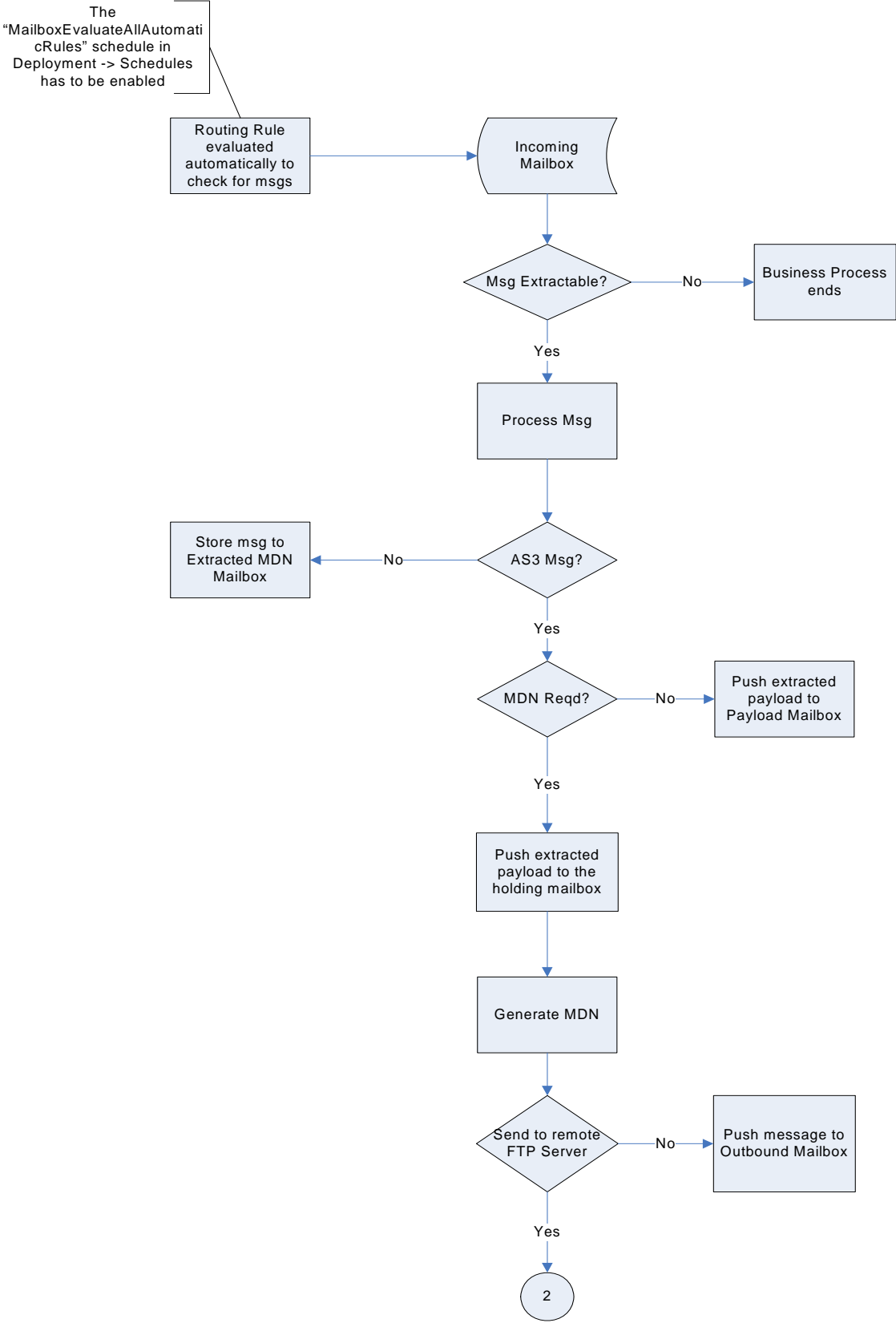
        </input>
    </operation>
</sequence>
</choice>

<onFault>
    <sequence name="Error Handling">
        <!-- Update EDIINT Transaction Status -->
        <choice name="Determine is update EDIINT transaction status needed">
            <select>
                <case ref="updateEDIINTTransactionStatus" negative="false"
activity="UpdateStatus"/>
            </select>
            <sequence name="UpdateStatus">
                <operation name="Update EDIINT Transaction Status">
                    <participant name="AS3LightweightJDBCAdapter"/>
                    <output message="LightweightJDBCAdapterTypeInputMessage">
                        <assign to="query_type">UPDATE</assign>
                        <assign to="result_name">result</assign>
                        <assign to="row_name">row</assign>
                        <assign to="sql">UPDATE MSGMDNCORRELATION SET TRANSACTION_STATUS
='processwitherrors' WHERE OBJECT_ID = ? </assign>
                        <assign to="param1"
from="/ProcessData/AS3MessageInitiation/MsgMdnCorrelationId/text()" />
                        <assign to="paramtype1">String</assign>
                        <assign to="." from="*"></assign>
                    </output>
                    <input message="inmsg">
                        <assign to="." from="*"></assign>
                    </input>
                </operation>
            </sequence>
        </choice>
        <operation name="generate Exception">
            <participant name="BPExceptionService"/>
            <output message="Xout">
                <assign to="exceptionCode">AS3MessageInitiation:fails to
executed!</assign>
                <assign to="." from="*"></assign>
            </output>
            <input message="Xin">
                <assign to="." from="*"></assign>
            </input>
        </operation>
    </sequence>
</onFault>
</sequence>
</process>

```


AS3MDNInitiation Business Process

The AS3MDNInitiation business process is used by the AS3 Build Service to send AS3 MDNs, retrieve MDNs, and add AS3 MDNs into mailboxes. The AS3MDNInitiation business process is initiated as part of the following inbound process flow:



This table lists the configuration parameters for the AS3MDNInitiation business process:

Parameter	Default	Description
Document Tracking	False	When document tracking is enabled for a business process, tracking information is carried with the message throughout the process, and the tracking information persists with the message regardless of the persistence level you configured globally for Application.
Set onfault processing	False	Onfault processing allows the process to immediately execute the onfault activity specified in the process, even if the process has not yet reached that step in the process. For example, if a process fails at step 3, but the onfault activity is specified in step 7, if onfault processing is enabled, the process proceeds to the step 7 onfault rather than halting at step 3.
Queue	4	Application enables you to set performance optimizations by queue, defining queue levels to allocate resources. This number indicates the previously allocated queue level that you want for this business process model.
Persistence Level	System Default	The level of data to retain for generating a status report that describes each step that the business process completes. System Default indicates that the configuration is already defined in Application to retain data.
Recovery Level	Manual	The level of recovery for this business process if the business process should halt during execution. Manual requires you to resume or restart the business process manually.
Document Storage Type	System Default	The level of document storage for messages that process when the business process runs. System Default specifies to store messages in the file system or database, according to how you configured archiving and purging in Application.
Life Span	Life Span Days — 2 Life Span Hours — 0 Life Span Type — System Level Removal Method — Archive	The length of time, in days and hours, to retain the data in Application, along with the life span type and removal method.
Complete by Deadline	None Available Note: To set a deadline you must change it in the business process.	Complete by – The deadline time, in hours and minutes, by which the business process must complete. <ul style="list-style-type: none"> ◆ First Notification: Hours and Minutes – Whether to receive notification before a business process deadline. ◆ Second Notification: Hours and Minutes – Whether to receive another notification before a business process deadline.

Parameter	Default	Description
Event Reporting Level	Full	The level of event reporting that is retrieved for this business process when it runs. Full specifies to generate events for the business process, including the business process start and end time, start and end times for all services or services running as a result of this business processes, and any resulting errors and exceptions.

The following BPML code makes up the AS3MDNInitiation business process:

```
<process name="AS3MDNInitiation">
  <rule name="isSendOperation">
    <condition>string(/ProcessData/AS3MDNInitiation/SendOperation/text()) =
'YES'</condition>
  </rule>
  <rule name="isPutToMailbox">
    <condition>string(/ProcessData/AS3MDNInitiation/PutToMailbox/text()) =
'YES'</condition>
  </rule>
  <rule name="isMDNMonitoring">
    <condition>string(/ProcessData/AS3MDNInitiation/MDNMonitoring/text()) =
'YES'</condition>
  </rule>
  <rule name="updateEDIINTTransactionStatus">

<condition>string-length(string(/ProcessData/AS3MDNInitiation/MsgMdnCorrelationId))
> 0</condition>
  </rule>

  <sequence>
    <!-- Determines to put received MDN into MDN mailbox or Payload into Payload
mailbox
-->
    <choice name="Determine the operation to perform">
      <select>
        <case ref="isPutToMailbox" negative="false"
activity="PutToMailboxOperation"/>
      </select>
      <sequence name="PutToMailboxOperation">
        <operation name="Invoke Sub_AS3PutMDNToMbx to place MDN or Payload into
mailbox">
          <participant name="InvokeBusinessProcessService"/>
          <output message="Xout">
            <assign to="." from="*"></assign>
            <assign to="WFD_NAME">Sub_AS3PutMDNToMbx</assign>
            <assign to="INVOKE_MODE">INLINE</assign>
            <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
          </output>
          <input message="Xin" >
            <assign to="." from="*"></assign>
          </input>
        </operation>
      </sequence>
    </choice>
  </sequence>
</process>
```

```

<!-- Determines to send MDN to partner
-->
<choice name="Determine the operation to perform">
  <select>
    <case ref="isSendOperation" negative="false"
activity="SendMDNOperation"/>
  </select>
  <sequence name="SendMDNOperation">
    <operation name="Invoke Sub_AS3SendMDN to send MDN to partner">
      <participant name="InvokeBusinessProcessService"/>
      <output message="Xout">
        <assign to="." from="*"></assign>
        <assign to="WFD_NAME">Sub_AS3SendMDN</assign>
        <assign to="INVOKE_MODE">INLINE</assign>
        <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
      </output>
      <input message="Xin" >
        <assign to="." from="*"></assign>
      </input>
    </operation>
  </sequence>
</choice>

  <!-- Determines to place MDN to MDN Outgoing mailbox and monitor if partner has
picked it up.
  Place the Payload to Payload mailbox if MDN is picks up within the
specified time period.
  If timeout and MDN has not been picked up, place Payload to Error mailbox.
  While waiting, place Payload into Holding mailbox
-->
<choice name="Determine the operation to perform">
  <select>
    <case ref="isMDNMonitoring" activity="MDNMonitoring"/>
  </select>
  <sequence name="MDNMonitoring">
    <operation name="Invoke Sub_AS3MDNMonitoring to monitor if MDN has been
picked up">
      <participant name="InvokeBusinessProcessService"/>
      <output message="Xout">
        <assign to="." from="*"></assign>
        <assign to="WFD_NAME">Sub_AS3MDNMonitoring</assign>
        <assign to="INVOKE_MODE">INLINE</assign>
        <assign to="NOTIFY_PARENT_ON_ERROR">ALL</assign>
      </output>
      <input message="Xin" >
        <assign to="." from="*"></assign>
      </input>
    </operation>
  </sequence>
</choice>

<onFault>
  <!-- Update EDIINT Transaction Status -->
  <choice name="Determine is update EDIINT transaction status needed">
    <select>

```

```

        <case ref="updateEDIINTTransactionStatus" negative="false"
activity="UpdateStatus" />
    </select>
    <sequence name="UpdateStatus">
        <operation name="Update EDIINT Transaction Status">
            <participant name="AS3LightweightJDBCAdapter" />
            <output message="LightweightJDBCAdapterTypeInputMessage">
            <assign to="query_type">UPDATE</assign>
            <assign to="result_name">result</assign>
            <assign to="row_name">row</assign>
            <assign to="sql">UPDATE MSGMDNCORRELATION SET TRANSACTION_STATUS
='processwitherrors' WHERE OBJECT_ID = ? </assign>
            <assign to="param1"
from="/ProcessData/AS3MDNInitiation/MsgMdnCorrelationId/text()" />
            <assign to="paramtype1">String</assign>
            <assign to="." from="*"></assign>
            </output>
            <input message="inmsg">
            <assign to="." from="*"></assign>
            </input>
        </operation>
    </sequence>
</choice>

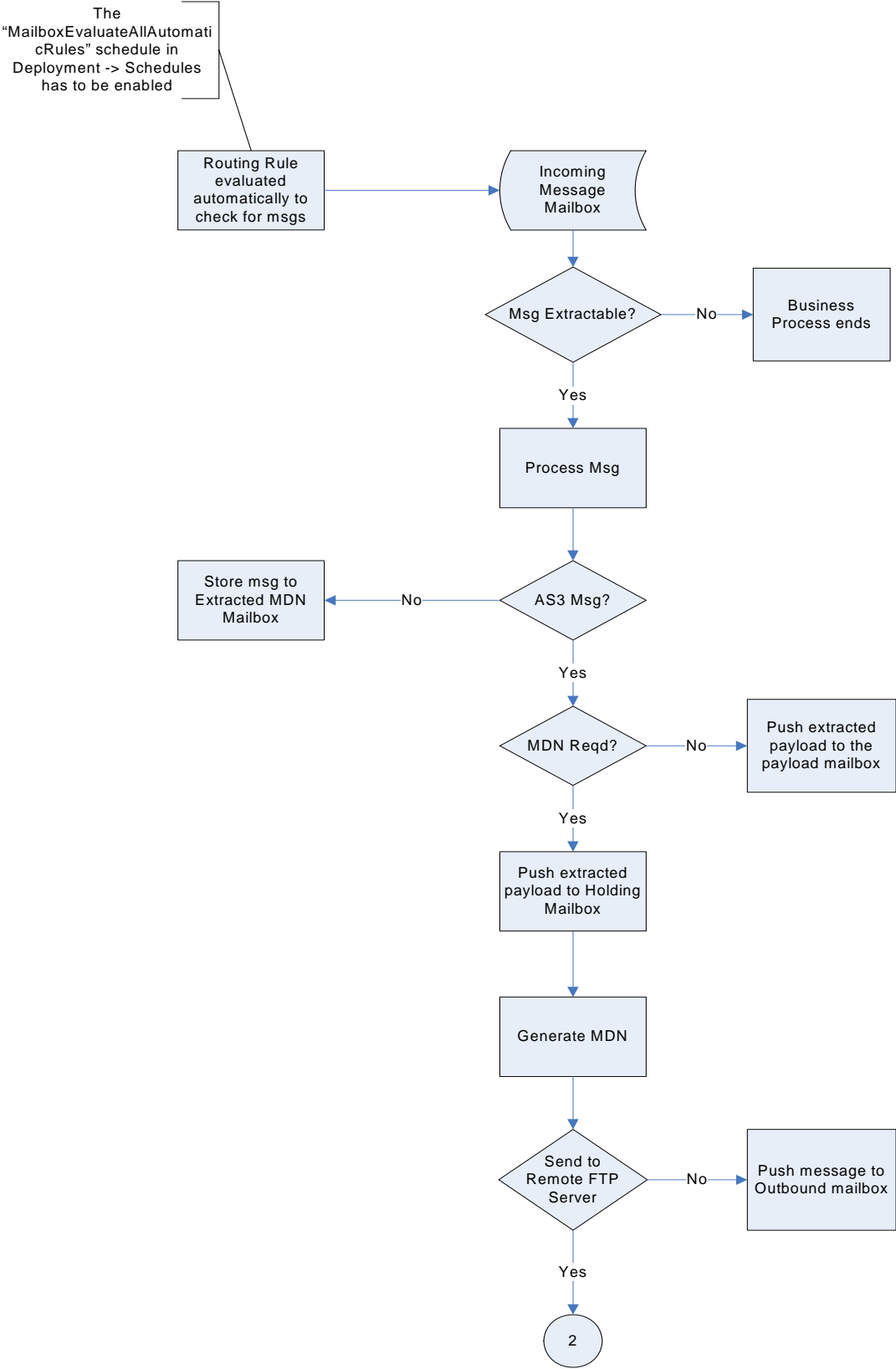
    <sequence name="Error Handling">
        <operation name="generate Exception">
            <participant name="BPExceptionService" />
            <output message="Xout">
                <assign to="exceptionCode">AS3MDNInitiation:fails to
executed!</assign>
                <assign to="." from="*"></assign>
            </output>
            <input message="Xin">
                <assign to="." from="*"></assign>
            </input>
        </operation>
    </sequence>
</onFault>
</sequence>
</process>

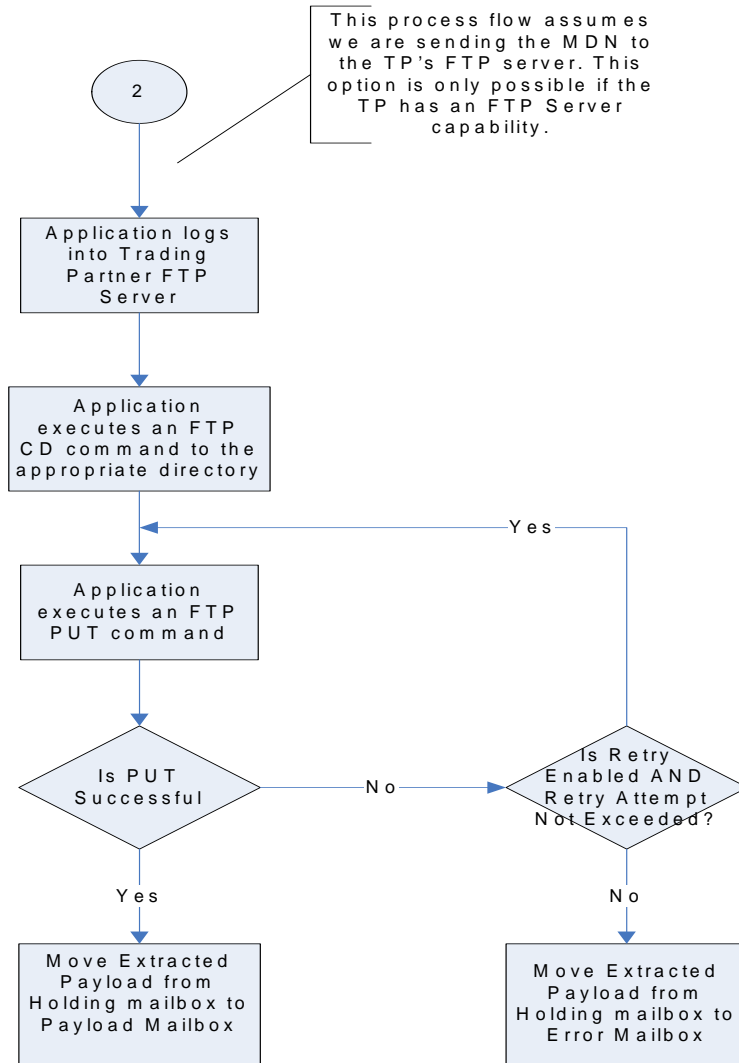
```

AS3MbxProcessing Business Process

The AS3MbxProcessing business process is invoked through an automatic routing rule that you create (either automatically through the partner profile create process or manually) or that is specified on the trading partners inbound AS3 message mailbox and the inbound AS3 MDN mailbox. For each extracted message, the AS3MessageParsing business process is invoked to process the message.

The AS3MbxProcessing business process is initiated as part of the following inbound process flow:





This table lists the configuration parameters for the AS3MbxProcessing business process:

Parameter	Default	Description
Document Tracking	False	When document tracking is enabled for a business process, tracking information is carried with the message throughout the process, and the tracking information persists with the message regardless of the persistence level you configured globally for Application.
Set onfault processing	False	Onfault processing allows the process to immediately execute the onfault activity specified in the process, even if the process has not yet reached that step in the process. For example, if a process fails at step 3, but the onfault activity is specified in step 7, if onfault processing is enabled, the process proceeds to the step 7 onfault rather than halting at step 3.

Parameter	Default	Description
Queue	4	Application enables you to set performance optimizations by queue, defining queue levels to allocate resources. This number indicates the previously allocated queue level that you want for this business process model.
Persistence Level	System Default	The level of data to retain for generating a status report that describes each step that the business process completes. System Default indicates that the configuration is already defined in Application to retain data.
Recovery Level	Manual	The level of recovery for this business process if the business process should halt during execution. Manual requires you to resume or restart the business process manually.
Document Storage Type	System Default	The level of document storage for messages that process when the business process runs. System Default specifies to store messages in the file system or database, according to how you configured archiving and purging in Application.
Life Span	Life Span Days — 2 Life Span Hours — 0 Life Span Type — System Level Removal Method — Archive	The length of time, in days and hours, to retain the data in Application, along with the life span type and removal method.
Complete by Deadline	None Available Note: To set a deadline you must change it in the business process.	Complete by – The deadline time, in hours and minutes, by which the business process must complete. <ul style="list-style-type: none"> ◆ First Notification: Hours and Minutes – Whether to receive notification before a business process deadline. ◆ Second Notification: Hours and Minutes – Whether to receive another notification before a business process deadline.
Event Reporting Level	Full	The level of event reporting that is retrieved for this business process when it runs. Full specifies to generate events for the business process, including the business process start and end time, start and end times for all services or services running as a result of this business processes, and any resulting errors and exceptions.

The following BPML code makes up the AS3MbxProcessing business process:

```
<process name="AS3MbxProcessing">
  <rule name="HasMoreMessages">
    <condition>/ProcessData/count &lt;=
count (/ProcessData/RoutingRequest/RoutingRequest/MessageId) </condition>
  </rule>
  <rule name="MessageExtractableCountIs0">
    <condition>/ProcessData/ExtractableCount/text() = 0</condition>
  </rule>
  <sequence>
    <assign to="count">1</assign>
```

```

<choice name="SendMessage">
  <select>
    <case ref="HasMoreMessages" activity="ProcessMessage"/>
  </select>
  <!-- Retrieve each message based on the message id -->
  <sequence name="ProcessMessage">
    <operation name="ExtractMessage">
      <participant name="MailboxExtractBegin"/>
      <output message="ExtractRequest">
        <assign to="MessageId"
from="string(/ProcessData/RoutingRequest/RoutingRequest/MessageId[number(/ProcessDat
a/count)])"/>
        <assign to="CommitNow">Yes</assign>
      </output>
      <input message="ExtractResponse">
        <assign to="." from="PrimaryDocument"/>
        <!-- only when FTP Server Adapter set
Message Extractable Count -->
        <assign to="." from="ExtractableCount"/>
      </input>
    </operation>
    <operation name="AS3 Parsing">
      <participant name="AS3Parse"/>
      <output message="Xout">
        <assign to="." from="*"></assign>
      </output>
      <input message="Xin">
        <assign to="." from="*"></assign>
      </input>
    </operation>
    <!-- only when FTP Server Adapter set Message
Extractable Count -->
    <choice>
      <select>
        <case ref="MessageExtractableCountIs0"
activity="DeleteMessage"/>
      </select>
      <sequence name="DeleteMessage">
        <operation name="Mailbox Delete Service">
          <participant name="MailboxDelete"/>
          <output message="DeleteRequest">
            <assign to="MessageId"
from="string(/ProcessData/RoutingRequest/RoutingRequest/MessageId[number(/ProcessDat
a/count)])"></assign>
            <assign to="." from="*"></assign>
          </output>
          <input message="DeleteResponse">
            <assign to="DeleteResponse" from="*" />
          </input>
        </operation>
      </sequence>
    </choice>
    <assign to="count" from="/ProcessData/count +1"/>
    <repeat ref="SendMessage"/>
  </sequence>
  <!-- Fixed TD40059 begin -->

```

```

<onFault>
  <sequence name="Error Handling">
    <assign to="ErrorFlag">TRUE</assign>
    <choice name="PostconditionCheck">
      <select>
        <case ref="HasMoreMessages" negative="false"
activity="ContinueProcess" />
      </select>
      <sequence name="ContinueProcess">
        <assign to="count" from="/ProcessData/count +1"/>
        <repeat ref="SendMessage"/>
      </sequence>
    </choice>
  </sequence>
</onFault>
<!-- Fixed TD40059 close -->
</choice>
</sequence>
</process>

```

Running, Restarting, and Stopping Predefined AS3 Business Processes


Predefined business processes associated with a document that contains errors may continue to run unnecessarily. Using the Business Processes Monitor, you can not only obtain general and detailed processing information about predefined business processes, but also run and stop business process and any subprocesses. After reconciling document errors, you can then restart the business process.

You need to resume or restart a process when your monitoring activities uncover a process instance with a state of waiting, interrupted, or halted, or you have stopped a process for some reason, such as to correct a problem before the process continues.

View Execution Information after process resumes or restarts. When you restart or resume a business process, Application opens the Execute Business Process page. This page lists the service, status, advanced status, start and end times, troubleshooting reports, and documents for each step completed within a recently run business process. The following table describes the three options you have for re-activating a stopped process instance, and when to use each:

Restart Option	Description
Resume	Continues a process from the last step that fully completed (including full configured persistence). The instance retains its original instance ID. Use this function when the error is related to services. For example, if a service is unavailable unexpectedly, a business process using that service stops at that point. After the service is restored and active, you can resume the business process.
Simple Restart	Starts a new instance of the same business process from the beginning (with the same document). The new process receives a new instance ID.

Restart Option	Description
Advanced Restart	Runs the original document using the default version of a different business process model (you can select the default version of any process model saved in the system). The new instance receives a new instance ID. Use this function when the error is related to the business process BPML code.

Note: The information icon indicates that troubleshooting data is available. Click the  icon to view this information.

To perform activities for predefined business processes:

1. From the **Business Process Monitor**, select the Instance **ID** for the appropriate business process.
2. In the Business Process Detail page, from the **Action** list, select **Restart**, **Stop**, **Expedite**, or **Terminate**, and click **Go!** The options displayed are the only options available for the selected instance or instances.

Note: If you want to resume the process, select **Restart**.

3. To stop the business process, select **Terminate**. When you are prompted to confirm that you want to terminate or expedite the process, click **OK**.
4. If you do not want to stop the business process, complete one of the following actions:
 - ◆ To continue the business process instance from the point at which it stopped, in the **Resume** area of the page, click **Go!**
 - ◆ To restart the process from the beginning with a new instance ID, in the **Simple Restart** area, click **Go!**
 - ◆ To process the original document using a different business process model, in the **Advanced Restart** area, select the business process model you want to use for this new instance and click **Go!**

The system runs the designated default version of the process you selected. A new page displays the execution of the selected action.

5. If the business process runs to completion, you are through with the execution. If the resumed or restarted business process stops responding, you must find and correct those errors before the business process can complete.

AS3 Trading Partner Overview

AS3 Trading Partners in Application

To exchange AS3 documents between trading partners, Application uses predefined business processes that link trading partners together. A *trading partner* is a company or business entity that participates in the exchange of business application data. To enable the Application to run these business processes, you must provide information about each trading partner participating in the business processes, including your organization. The sending process retries a specified number of times at the interval you configure.

A trading relationship is only defined between two different partners, and in this relationship one partner must act as an Organization and the other must act as a Partner. When a trading relationship already exists between two trading partners, no reverse relationship is allowed. For example, if you have an AS3 trading relationship with your partner Roman's Floors and More, in which you act as the Organization and Roman's Floors and More acts as a Partner, then you and this partner cannot have another trading relationship with a reverse role.

An *organization* is the company or business entity that administers your system. This organization is comparable to a profile and an identity in Application.

You must create a trading partner profile for each trading partner with whom you exchange AS3 documents. Each time you create a partner using the AS3 wizard, you need to create a contract between that partner profile and the organization.

Note: Two AS3 contracts are automatically created when you use the AS3 Partner Wizard to create a trading partner contract.

These contract names are formatted as follows:

- ◆ [local partner identity name] InitiateExchangeTo [remote partner identity name]
- ◆ [local partner identity name] ReceivedFrom [remote partner identity name]

Note: The Production and Consumption profile appears if you view the created profiles from the advanced trading partner menu options.

Before You Begin Using AS3 with Application

Before you configure information about your organization and trading partners, you need to do the following:

- ◆ Check in certificates for the secure transport of data.

Note: You need to check your private key certificate in to Application.

- ◆ Collect the following information about your organization and trading partners:
 - ◆ Name and address information
 - ◆ AS3 identifiers

- ◆ The following certificates, as appropriate:
 - System certificates
 - SSL server certificates
 - End-user certificates
- ◆ IP addresses, port numbers, and URLs
- ◆ Agreed-upon algorithms for signing and encryption
- ◆ User identifiers and passwords

Building an AS3 Message

When you build an AS3 message, all the information about security preferences, acknowledgement preferences, and transport is pulled from the consumption profile. The identity identifier and the signing key for the document exchange (if the document is signed) are pulled from the production profile.

Note: The population of the Consumption and Production profile is done through the AS3 Partner Wizard.

Parsing an AS3 Message

When you parse an AS3 message, all the information about security preferences, acknowledgement preferences, and transport is pulled from the production profile. The identity identifier and the exchange key for the transport exchange (if the message is encrypted) are pulled from the consumption profile.

After Creating Your Organization, Partner Profiles, and Partner Contracts

After you create all the necessary partner information in the AS3 Trading Partner wizard, you need to assign the appropriate user permissions to all the AS3 mailboxes and routing rules that were automatically created. You need to assign permissions for each of your partners.

If you do not choose to have the necessary mailboxes and routing rules automatically created, you need to assign these permissions after you manually create the mailboxes and routing rules.

AS3 Trading Partner Organization

Overview

Depending on your relationship with your trading partners, your organization may be the AS3 Trading Partner Organization, or one of your partners may fulfill that role.

For more information about trading partner organizations, see *AS3 Trading Partner Overview* on page 29.

Creating an AS3 Organization

To create an organization:

1. From the **Administration** menu, select **Trading Partners > AS3**.
2. In the AS3 Trading Profile Configuration page, in the Create section next to **New AS3 Profile**, click **Go!**
3. In the Trading Profile: Identification page, in the **Name** parameter, type the name of the organization. This must be a unique name.
4. In the Trading Profile: Identification page, in the **Identifier** parameter, type the AS3 identifier for the organization. This must be a unique identifier.
5. In the Trading Profile: Identification page, **Configuration Type** section, select **Organization** and click **Next**.
6. In the Trading Profile page, complete the following parameters, as appropriate, and click **Next**:

Field	Description
Decryption Certificate	Name of the private certificate that the organization uses for message decryption. The organization should have sent a public certificate to all trading partners to use for message encryption. Optional.
Signing Certificate	Name of the private certificate that is used to sign messages. This certificate can be the same as the certificate that you are using for key exchange. The organization should have sent a public certificate to all trading partners to use when validating the signature. Optional.

7. In the Confirm page, verify the information and click **Finish**.

AS3 Trading Partner Profiles

Overview

The Partner Profile creation process enables you to specify that the necessary mailboxes and routing rules are automatically created.

For more information about trading partner organizations, see *AS3 Trading Partner Overview* on page 29

Creating an AS3 Profile

You must create a profile for all trading partners with whom you exchange AS3 messages.

To create an AS3 Trading Profile:

1. From the **Administration** menu, select **Trading Partners > AS3**.
2. In the AS3 Configurations page, in the **Create** section next to **New AS3 Profile**, click **Go!**
3. In the AS3 Trading Profile Configuration: Identification page, in the **Name** parameter, type the name of the organization. This must be a unique name.
4. In the AS3 Trading Profile Configuration: Identification page, in the **Identifier** parameter, type the AS3 identifier for the organization. This must be a unique identifier.
5. In the AS3 Trading Profile Configuration: Identification page, **Configuration Type** section, select the type of profile and click **Next**.

6. In the Trading Profile: Messaging Action page, complete the following parameters, as appropriate, to specify the required actions when the organization initiates an AS3 message or responds to an AS3 message, and click **Next**:

Field	Description
As Initiator	<p>Specify the action to be taken when the partner initiates an AS3 message. Valid values are:</p> <ul style="list-style-type: none"> ◆ Send Message Directly to Trading Partner only (default; indicates that an AS3 message should be sent to the trading partner's FTP server) ◆ Send Message Directly to Trading Partner and pickup MDN only (indicates that an AS3 message should be sent to the partner's FTP Server and the MDN should be retrieved from a specified directory) <p>Note: This option is used when the partner does not have the FTP Client capability to send out the MDN.</p> <ul style="list-style-type: none"> ◆ Copy message to Trading Partner Outbox (indicates that an AS3 message is placed in the outbound mailbox of the partner sending the AS3 message). <p>Note: This option is used when the partner does not have FTP Server capability.</p> <ul style="list-style-type: none"> ◆ Pick up message From Trading Partner FTP Server (indicates that an AS3 message should be retrieved from the partner's FTP Server). <p>Note: This option is used when the partner does not have FTP Client capability to send the AS3 message.)</p> <p>Required.</p>
As Responder	<p>Specify the action to be taken when the partner responds to an AS3 message. Valid values are:</p> <ul style="list-style-type: none"> ◆ Send MDN directly to Trading Partner (default; indicates that the MDN should be sent to the partner's FTP Server) ◆ Copy MDN to Trading Partner Outbox (indicates that the MDN should be sent to the partner's designated MDN mailbox). <p>Note: This option is used when the partner does not have FTP Server capability.</p> <p>Required.</p>

7. In the Trading Profile: FTP Communication page, complete the following parameters, as appropriate, to configure the FTP server options required to communicate with this partner, and click **Next**:

Field	Description
Host IP	IP address of the FTP server for the Trading Partner. Required.
Port Number	Port number for the Control Channel of the FTP server for the Trading Partner. Default is 21.
Transfer Mode	<p>Transfer mode is of two types:</p> <ul style="list-style-type: none"> ◆ Active: The FTP server establishes a data connection with the client on a port which was prearranged during the handshake process. ◆ Passive: The Client establishes a data connection with the FTP server on a port which was prearranged during the handshake process. <p>Required.</p>

Field	Description
User ID	User name to log in to the FTP server for basic authentication. Required.
Password	Password that is associated with the User ID identified in the previous field for FTP server basic authentication. Required.
Local Data Port Range	The range of ports used by the Client for transferring data. Optional.
Local Control Port Range	The range of ports used by the client for transferring control information. Optional.
Response Time Out (seconds)	Number of seconds to wait for a response from the FTP server before the system times out. Valid value is number of seconds. Default is 30. Required.
Connection Retry	The number of additional times that Application will attempt to connect to the FTP server in event of a failure. Default is 3. Required.
Retry Interval (seconds)	The interval (in seconds) after which messages will be requeued and an attempt will be made to resend them (after a send failure). Default is 30 seconds. Required.
Use SSL	Whether Secure Sockets Layer (SSL) should be active. SSL is a negotiation between the client and the server that establishes the method of encrypting and decrypting data transmissions. Default is not enabled (SSL is not used). Optional.

8. If you chose to use SSL, in the Trading Profile: FTP Communication SSL page, complete the following parameters, as appropriate, to configure the SSL settings required to communicate with a secure FTP server, and click **Next**:

Field	Description
Cipher Strength	<p>Strength of the algorithms used to encrypt data. Only accepts supported algorithm. Optional. Valid values are:</p> <ul style="list-style-type: none"> ◆ ALL – Includes all cipher strengths (weak and strong as listed below). ◆ WEAK – Required for international e-commerce if government regulations prohibit STRONG encryption from being exported. Includes the following strengths: <ul style="list-style-type: none"> ◆ Export level RSA 512-bit with 40-bit RC4 and MD5 ◆ Export level RSA 512-bit with 40-bit DES and SHA1 (Secure Hash Algorithm) ◆ STRONG – This is the default. Required if SSL option is anything other than None. Includes the following strengths: <ul style="list-style-type: none"> ◆ RSA with 128-bit RC4 with SHA1 ◆ RSA with 128-bit AES with SHA1 ◆ RSA with 256-bit AES with SHA1 ◆ RSA with 3DES with SHA1 ◆ RSA with 128-bit RC4 with MD5 ◆ RSA with DES with SHA1 <p>Note: If you are using an older or retired adapter, the 128-bit and 256-bit AES ciphers might not be available. For more information on the phases of the Retiring process, see <i>Retiring and Removed Services and Adapters</i>.</p>
CA Certificates	The public certificate or the Certificate Authority (CA) certificate used to validate SSL server authentication of the trading partner. Required.
Key Certificate Passphrase	Type a passphrase to be used with this private key certificate. Required only if a key certificate is being used for SSL client side authentication.
Key Certificate (System Store)	<p>Select your private key certificate.</p> <p>Note: You should have already checked the certificate in to Application for it to be displayed in this list.</p> <p>Optional.</p>

9. In the Trading Profile: Message page, complete the following parameters, as appropriate, to configure the MIME message settings required for the AS3 message exchange, and click **Next**:

Field	Description
Payload Type	<p>Payload is the document at the inner level of the message. The payload type describes the message format for transporting documents. Optional. Valid values are:</p> <ul style="list-style-type: none"> ◆ Plain Text – Payload is not signed and it is not encrypted. Default. ◆ Signed Detached – Payload is signed with a detached signature, according to the EDIINT specifications. ◆ Encrypted – Payload is encrypted according to the EDIINT specifications. ◆ Signed Detached Encrypted – Payload is signed with a detached signature and then encrypted, according to the EDIINT specifications.
MIME Type	<p>Indicates how to package the lowest level of payload content (the document at the inner level of a message) to be sent. MIME type helps to implement the EDIINT specification correctly, and provides some flexibility, because receiving programs might expect a specified MIME type and sub-type.</p> <p>The MIME type value is used as the Content-type value in the header of the payload section of the message. Optional.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ Text – Used or XML or text (default) ◆ Application – Used or EDI, or any other type of data ◆ Message ◆ Image ◆ Video ◆ Audio
MIME Sub-Type	<p>Indicates how to package the lowest level of payload content (the document at the inner level of a message) to be sent.</p> <p>The MIME sub-type value combined with the MIME type value creates the Content-Type values in the header of the payload section of the message. For example, Content-Type: Application/EDI-X12, where Application is a MIME type and EDI-X12 is the MIME sub type.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ EDI-X12 ◆ EDIFACT ◆ EDI-Consent ◆ Octet-stream – Used for any type of data ◆ XML ◆ Plain (default) <p>Optional.</p>

Field	Description
Compress Data	<p>Indicates the amount of compression required for the payload. Valid values are:</p> <ul style="list-style-type: none"> ◆ None (default) ◆ Low ◆ Medium ◆ High ◆ Default <p>Default is none. Optional.</p>
Encryption Certificate	<p>Indicates the public certificate used in encrypting the payload prior to sending the message to the partner. If no certificates are available in the system, it defaults to None Available. If there are certificates in the system, it defaults to no certificates being selected. Optional.</p> <p>Note: This is the trading partner encryption certificate. Use the trusted certificate that this specific trading partner sent to you. You must check in the trading partner certificate prior to setting up the trading profile. Checking in the certificate allows the certificate to display in this list.</p>
Encryption Algorithm	<p>If you selected a payload type requiring encryption, identifies the encryption algorithm to use. Optional.</p> <ul style="list-style-type: none"> ◆ Triple DES 168 CBC with PKCS5 padding ◆ 56-bit DES CBC with PKCS5 padding ◆ 128-bit RC2 CBC with PKCS5 padding ◆ 40-bit RC2 CBC with PKCS5 padding ◆ none (default) <p>Required if Encryption Certificate is selected.</p>
Signature Verification Certificate	<p>Indicates the public certificate used in verifying signatures of messages from this partner. If no certificates are available in the system, it defaults to None Available. If there are certificates in the system, it defaults to no certificates being selected. Optional.</p> <p>Note: This is the signing certificate that your trading partner sent you. This certificate can be the same as the exchange certificate, if your trading partner uses the same certificate for both encryption and signing. Use the trusted certificate that this specific trading partner sent to you. You must check in the trading partner certificate prior to setting up the trading profile. Checking in the certificate enables the certificate to display in this list.</p>
Signing Algorithm	<p>Algorithm to use to sign messages to the trading partner. Valid values are MD5, SHA1, and none (default). Optional.</p> <p>Note: This parameter is required if you select the Signature Verification Certificate.</p>
MDN Receipt	<p>Whether you request Message Disposition Notifications (MDNs) for messages from your trading partner. Valid values are Yes and No (default). Optional.</p>
MDN Signature Type	<p>The hashing algorithm used in the creation of a hash of the payload prior to applying the signature. Valid values are MD5, SHA1, and none (default). Optional.</p>

10. In the Trading Profile: Mailbox page, complete the following parameters, as appropriate, to specify the mailboxes that must be created prior to exchanging AS3 messages (and whether these mailboxes are automatically created), and click **Next**:

Field	Description
Incoming AS3 Message	Name of the mailbox that stores the incoming AS3 messages from the trading partner. Required.
Outgoing AS3 Message	Name of the mailbox that stores the outgoing AS3 messages to the trading partner. This mailbox is only used if the AS3 messaging options indicate a need to store the outbound message locally for the trading partner to pick up. Required.
Extracted Payload	Name of the mailbox that stores the actual payload extracted from the incoming message. An internal business process will pick up and process the document. Required.
Incoming AS3 MDN	Name of the mailbox that stores the incoming AS3 message that contains the MDN. Required.
Extracted MDN	Name of the mailbox that stores the actual MDN extracted from the AS3 message. Required.
Outgoing AS3 MDN	Name of the mailbox that stores the outgoing AS3 messages containing the MDN to the trading partner. This mailbox is only used if the AS3 messaging options indicate the need to store the outbound message locally for the trading partner to pick up. Required.
Error Payload	Name of the mailbox that stores the extracted payload for messages that did not successfully send the MDN to the Trading Partner. Required.
Holding Payload	Name of the intermediate mailbox that holds hold the extracted payload. The extracted payload remains in this mailbox until the MDN (if required) is picked up/transferred to the trading partner. When the MDN is delivered successfully, the payload is moved to the Extracted Payload mailbox. For delivery failures, the payload is moved to the Error Payload mailbox. Required.
Message Extractable Count	The maximum number of times the message can be extracted from the mailbox. Default is 1. Required.
Mailbox Auto Creation	When selected (default), it creates the mailboxes specified and adds AS3 Routing Rules for the Incoming AS3 Message and Incoming MDN mailboxes. Optional. Note: If you do not use the automatic mailbox creation option, you must create the necessary mailboxes, routing rules, and schedules. See <i>AS3 Mailboxes</i> on page 49 and <i>AS3 Routing Rules</i> on page 53 for more information.

11. In the Trading Profile: FTP Server page, complete the following parameters, as appropriate, and click **Next**:

Field	Description
AS3 Message Download Directory	Indicates the directory where the AS3 message is stored on the FTP server. Required only if the Messaging Action As Initiator selected is Pick up message from Trading Partner FTP Server .

Field	Description
AS3 Message to Download	Indicates the filename of the AS3 message to be downloaded (for example, *.txt, which will only download documents with the extension txt). Required only if the Messaging Action As Initiator selected is Pick up message from Trading Partner FTP Server .
Check AS3 Message file size	System checks if the AS3 message is completely uploaded to the FTP server from where the download is being done. System achieves this by checking if the file size in the upload directory is increasing or constant. Default values are Yes and No (default). Required only if the Messaging Action As Initiator selected is Pick up message from Trading Partner FTP Server .
Delete AS3 Message after Retrieval	Indicates that the AS3 message needs to be deleted after the download is completed. Valid values are Yes and No (default). Required only if the Messaging Action As Initiator selected is Pick up message from Trading Partner FTP Server .
AS3 Message Polling Time Out	The duration in seconds for which the system would poll for the presence of an AS3 message in the specified directory. Default is 60 seconds. Required only if the Messaging Action As Initiator selected is Pick up message from Trading Partner FTP Server .
AS3 Message Upload Directory	Indicates the directory where the AS3 message is uploaded on the FTP server. Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner only or Send Message Directly to Trading Partner and pickup MDN only .
MDN Download Directory	Indicates the directory where the MDN is stored on the FTP server. Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner and pickup MDN only .
MDN to Download	Indicates the filename of the MDN to be downloaded (for example, *.txt, which will only download documents with the extension txt). Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner and pickup MDN only .
Check AS3 MDN file size	System checks if the AS3 MDN is completely uploaded to the FTP server from where the download is being done. System achieves this by checking if the file size in the upload directory is increasing or constant. Valid values are Yes and No (default). Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner and pickup MDN only .
Delete MDN after Retrieval.	Indicates that the AS3 MDN needs to be deleted after the download is completed. Valid values are Yes and No (default). Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner and pickup MDN only .
MDN Polling Time Out	The duration in seconds for which the system would poll for the presence of an AS3 MDN in the specified directory. Default is 60 seconds. Required only if the Messaging Action As Initiator selected is Send Message Directly to Trading Partner and pickup MDN only .
MDN Upload Directory	Indicates the directory where the MDN is uploaded on the FTP server. Required only if the Messaging Action As Responder selected is Send MDN Directly to Trading Partner .

12. In the Trading Profile: Message Naming page, complete the following parameter, as appropriate, and click **Next**:

Field	Description
Configure AS3 Message Naming Options	Whether to use AS3 message naming options. Valid values are Yes and No (default). Required. Note: This option enables you to prefix or remove message extensions prior to and after uploading the AS3 message or MDN. It provides the flexibility to you so that you can customize file naming to support any partner-specific requirements.

13. If you selected **Yes** for the **Configure AS3 Message Naming Options** parameter, in the Trading Profile: Message Naming page, complete the following parameters, as appropriate to prefix or remove message extensions, and click **Next**:

Field	Description
Before Uploading Message	
Rename AS3 message	The new name for the AS3 message. Optional. Note: Allows you to rename the AS3 message. You must provide the full path because this feature invokes an FTP RENAME command.
Append AS3 message name with extension	An extension to be appended to the AS3 message name. Optional. Note: Specify the extension without the period.
Prefix AS3 message name with	A prefix to attach to the AS3 message name. Optional.
Rename last AS3 message extension	The new extension for the last AS3 message. Optional. Note: Specify the extension without the period.
Remove last AS3 message extension	Whether the last extension for the AS3 message is removed. Valid values are Yes and No (default; indicating that the last extension does not need to be removed). Optional.
Rename MDN	The new name for the MDN message. Optional.
Append MDN with extension	An extension to be appended to the MDN. Optional. Note: Specify the extension without the period.
Prefix MDN name with	A prefix to attach to the MDN. Optional.
Rename last MDN extension	The new extension for the last MDN. Optional. Note: Specify the extension without the period.
Remove last MDN extension	Whether the last extension for the MDN is removed. Valid values are Yes and No (default; indicating that the last extension does not need to be removed). Optional.
After Uploading Message	
Rename AS3 message	The new name for the AS3 message. Optional. Allows you to rename the AS3 message. You must provide the full path because this feature invokes an FTP RENAME command.

Field	Description
Append AS3 message name with extension	An extension to be appended to the AS3 message name. Optional. Specify the extension without the period.
Prefix AS3 message name with	A prefix to attach to the AS3 message name. Optional.
Rename last AS3 message extension	The new extension for the last AS3 message. Optional. Specify the extension without the period.
Remove last AS3 message extension	Whether the last extension for the AS3 message is removed. Valid values are Yes and No (default; indicating that the last extension does not need to be removed). Optional.
Rename MDN	The new name for the MDN message. Optional. Note: Allows you to rename the MDN. You must provide the full path because this feature invokes an FTP RENAME command.
Append MDN with extension	An extension to be appended to the MDN. Optional. Note: Specify the extension without the period.
Prefix MDN name with	A prefix to attach to the MDN. Optional.
Rename last MDN extension	The new extension for the last MDN. Optional. Note: Specify the extension without the period.
Remove last MDN extension	Whether the last extension for the MDN is removed. Valid values are Yes and No (default; indicating that the last extension does not need to be removed). Optional.

14. In the Confirm page, verify the information you specified and click **Finish**.

AS3 Trading Partner Contracts

Overview

Each time you create a partner using the AS3 wizard, you need to create a contract between that partner profile and the organization.

Note: Two AS3 contracts are automatically created when you use the AS3 Partner Wizard to create a trading partner contract.

One contract is used for initiating an AS3 message exchange and the other contract is used for receiving an AS3 message. These contract names are generated automatically and formatted as follows:

- ◆ [local partner identity name] InitiateExchangeTo [remote partner identity name]
- ◆ [local partner identity name] ReceivedFrom [remote partner identity name]

Note: The Production and Consumption profile appears if you view the created profiles from the Advanced Trading Partner menu options.

The Bulk Message Generation feature is part of the contract creation process. This feature allows you to enable the schedule of a business process to collect payloads from a specified folder, create an AS3 message, and send it to the intended trading partner. Application supports initiating AS3 message exchanges in a scheduled manner. The option of searching a specified folder for any files present within it or matching a file pattern is configured when you create the AS3 contracts. A scheduled Business Process (BP) that includes the AS3 Build Service is created with the contract name and the parameters specified in the Bulk Message Generation option, when you create a trading partner contract between an organization and a partner.

Creating an AS3 Contract

You must create a contract for all trading partners with whom you exchange AS3 messages.

To create an AS3 Contract:

1. From the **Administration** menu, select **Trading Partners > AS3**.
2. In the AS3 Configurations page, in the **Create** section next to **New AS3 Contract**, select the **Organization** and **Profile** that you created for the partner and click **Go!**
3. In the AS3 Trading Contract Configuration page, complete the following parameter, as appropriate, and click **Next**:

Field	Description
Enable Bulk Message Generation	Whether to enable bulk message generation. Valid values are Yes and No (default). Required.

4. If you selected **Yes** for the **Enable Bulk Message Generation** parameter, in the AS3 Trading Partners Configurations page, complete the following parameters, and click **Next**:

Note: If you selected **No** for the **Enable Bulk Message Generation** parameter, in the AS3 Trading Partners Configurations page, then the Confirm page is displayed. Click **Finish**.

Field	Description
Collection Folder	Directory that contains outgoing (outbound) payload for your trading partners. Required.
Maximum Number of Files to Collect	The number of files that are picked up from the collection folder each time that the scheduled business process executes. The default value is 10. Required. Note: The number you specify should ensure that an optimum throughput is obtained based on the hardware and memory specifications of your environment.
Filename Filter	Indicates a filename filter to be used when collecting the payload (for example, *.txt, which will only collect documents with the extension txt). Optional.
Bulk Message Suspension	Indicates the time (in seconds) when collecting files from the payload is suspended due to the inability to conclude a message exchange with the partner in the previous attempt to exchange messages. Default is 60 seconds. Required.
Enable Schedule (Timer)	The business process is automatically generated and scheduled. The schedule will be enabled only when you select Yes for this parameter. Required. Note: If you do not select Yes for this parameter, you will need to schedule the business process manually using the interface available through Deployment > Schedules .
Select Time	Specify the required hours and/or minutes to indicate the interval at which the generated business process should be executed. Default is 3.5 hours. Optional.

5. In the Confirm page, verify the information you specified and click **Finish**.

Note: If there exists an active trading contract for a partner, then you cannot change that partner profile to an organization profile.

Editing an AS3 Trading Partner

Introduction

The AS3 Trading Partner wizard not only allows you to create new trading partner profiles but also enables you to edit the existing profiles. Therefore, you can always change an Organization profile to a Partner profile and vice versa. If there is an active trading contract between an Organization and a Partner, then you are not allowed to change the profile type of either the Organization or Partner. Additionally, you can modify an aspect of an existing Organization or Partner profile.

Editing an AS3 trading partner may be necessary, for example, if you are negotiating a contract and you or your trading partner want to change some of the information.

Editing Organization Information

To edit your organization information:

1. From the Administration menu, select **Trading Partners > AS3**.
2. In the AS3 Configurations page, under **List**, next to **AS3 Trading Profiles**, click **Go!**
In the AS3 Profiles page, a list of trading profiles displays.
3. In the list, locate the organization you want to edit and click **edit**.
4. Update your organization information as necessary and click **Next**.

Note: If you want to change this Organization to a Partner profile, for **Configuration Type** click **Partner**.

5. Click **Finish** to update the organization.

Editing Trading Partner Information

To edit trading partner information:

Note: You can edit Organization and Partner profiles only if the profile is not part of a contract.

1. From the Administration menu, select **Trading Partners > AS3**.
2. In the AS3 Configurations page, under **List**, next to **AS3 Trading Profiles**, click **Go!**
In the AS3 Profiles page, a list of trading profiles is displayed.
3. In the list, locate the partner you want to edit and click **edit**.
4. Update your organization information as necessary and click **Next**.

Note: If you want to change this Partner profile to an Organization, for **Configuration Type** click **Organization**.

5. Click **Finish** to update the organization.

Deleting an AS3 Trading Partner

Introduction

The AS3 Trading Partner wizard also enables you to delete trading partner information. You can delete trading partner information when it becomes obsolete. This may be necessary, for example, if a trading partner is lost, or when two trading partners merge.

Deleting Trading Partner Information

To delete trading partner information:

1. From the Administration menu, select **Trading Partners > AS3**.
 2. In the AS3 Configurations page, under **List**, next to **AS3 Trading Profiles**, click **Go!**
In the AS3 Profiles page, a list of trading profiles is displayed.
 3. In the list, locate the organization you want to edit and click **edit**.
 4. In the list, locate name of the trading partner whose information you want to delete and click **delete**.
 5. In the message prompting you to confirm your intent to delete, complete one of the following actions:
 - ◆ Click **OK** to continue the deletion.
 - ◆ Click **Cancel** to cancel the deletion.
 6. In the Resource Summary page, review the information and click **Next**.
- Caution:** When you click **Delete**, you completely remove this trading partner from the database. This action cannot be undone.
7. In the Confirm page, click **Delete** to complete the deletion.

Editing an AS3 Contract

Introduction

The AS3 Trading Partner wizard not only allows you to create new AS3 contracts but also enables you to edit the existing contracts. Therefore, you can always make changes to the contracts once they are created. If there is an active trading contract for a Partner, then you are not allowed to change that partner profile to Organization profile. Editing a contract enables you to enable or disable Bulk Message Generation.

Editing an AS3 contract may be necessary, for example, if you are negotiating a contract and you or your trading partner want to change some of the information.

Note: If you delete a trading partner the existing contract dependant on that trading partner is deleted and you cannot see that contract in the list of AS3 contracts for editing.

Editing AS3 Contract Information

To edit your organization information:

1. From the Administration menu, select **Trading Partners > AS3**.
2. In the AS3 Configurations page, under **List**, next to **AS3 Trading Contracts**, click **Go!**
In the AS3 Contracts page, a list of trading contracts displays.
3. In the list, locate the contract you want to edit and click **edit**.
4. Update the AS3 Trading Contract Configuration as necessary and click **Next**.
5. Click **Finish** to update the contract.

Deleting an AS3 Contract

Introduction

The AS3 Trading Partner wizard also enables you to delete AS3 contracts. You can delete AS3 contracts when a contract no longer exists between two trading partners.

Note: If an active AS3 contract exists, Application does not allow you to delete the profiles associated with that trading contract.

Deleting AS3 contract Information

To delete AS3 contract information:

1. From the Administration menu, select **Trading Partner > AS3**.
2. In the AS3 Configurations page, under **List**, next to **AS3 Trading Contracts**, click **Go!**
In the AS3 Contracts page, a list of trading contracts displays.
3. In the list, locate the contract you want to delete and click **delete**.
4. In the message prompting you to confirm your intent to delete, complete one of the following actions:
 - ◆ Click **OK** to continue the deletion.
 - ◆ Click **Cancel** to cancel the deletion.
5. In the Resource Summary page, review the information and click **Next**.

Caution: When you click **Delete**, you completely remove this contract from the database. This action cannot be undone.

6. In the Confirm page, click **Delete** to complete the deletion.

FTP Server Adapter Instance for AS3

The FTP Server adapter transports the AS3 and MDN messages to your trading partners. You need to create an instance of the FTP Server adapter to enable the trading partner to log in to Application to send an AS3 message or pick up an outbound AS3 message.

When you configure an instance of the FTP Server adapter for AS3, you need to create User Accounts for their trading partners and assign the User Identifiers to the trading partner mailboxes that were either automatically created when you created the partner profiles or created manually.

Note: You can also create virtual roots for specific users, if desired. This functionality allows the user to be assigned a specified mailbox directory.

Additionally, as part of the configuration of the FTP Server adapter, you need to specify if Secure Sockets Layer (SSL) is required when connecting to the FTP Server. If the FTP Server adapter **SSL** parameter is set to **Optional** or **Must**, you need to give your public certificate information to your trading partners to use during the SSL handshake procedure.

Note: You need to set the Extractable Count to 1 to ensure that the incoming messages are deleted upon extraction and to prevent the same message from being extracted multiple times.

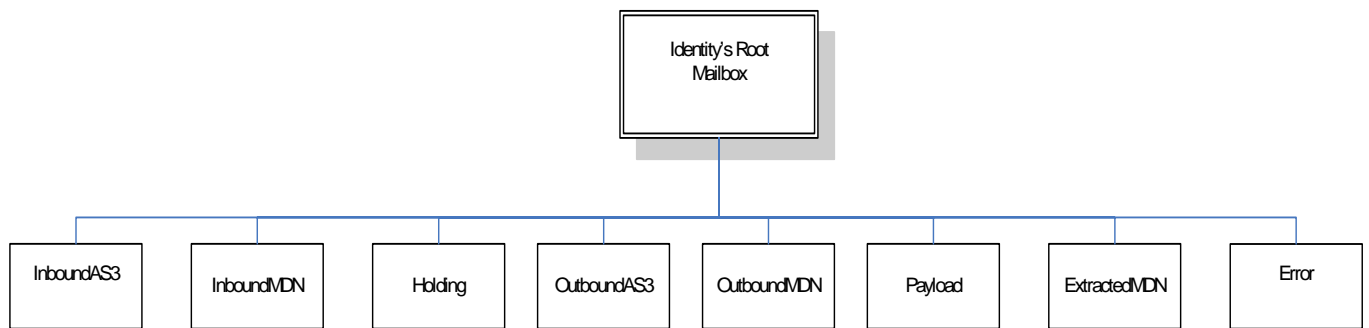
See *FTP Server Adapter* for more information on configuring the adapter instance.

AS3 Mailboxes

Overview

If you do not choose to have the necessary mailboxes automatically created during the partner profile creation process (for example, because you want the flexibility to create your own mailbox structure), you need to manually create the necessary mailboxes and then assign appropriate user permissions. See *Creating an AS3 Profile* on page 32 for more information on having the mailboxes automatically created.

The following diagram illustrates the mailbox structure when the mailboxes are created by Application. This is the structure we recommend you use:



This table describes the mailboxes that must be created (either automatically through the partner profile creation process or manually):



Mailbox Purpose	Name of Mailbox When Automatically Created	Description
Incoming AS3 Message	InboundAS3	This is the mailbox that stores the incoming AS3 messages from the trading partner.
Incoming AS3 MDN	InboundMDN	This is the mailbox that stores the incoming AS3 message that contains the MDN.
Holding Payload	Holding	This is the intermediate mailbox that holds the extracted payload. The extracted payload remains in this mailbox until the MDN (if required) is picked up/transferred to the trading partner. When the MDN is delivered successfully, the payload is moved to the Extracted Payload mailbox. For delivery failures, the payload is moved to the Error Payload mailbox.
Outgoing AS3 Message	OutboundAS3	This is the mailbox that stores the outgoing AS3 messages to the trading partner. This mailbox is only used if the AS3 messaging options indicate a need to store the outbound message locally for the trading partner to pick up.

Mailbox Purpose	Name of Mailbox When Automatically Created	Description
Outgoing AS3 MDN	OutboundMDN	This is the mailbox that stores the outgoing AS3 messages containing the MDN to the trading partner. This mailbox is only used if the AS3 messaging options indicate the need to store the Outbound MDN for the message locally for the trading partner to pick up.
Extracted Payload	Payload	This is the mailbox that stores the actual payload extracted from the incoming message. An internal business process will pick up and process the document.
Extracted MDN	ExtractedMDN	This is the mailbox that stores the actual MDN extracted from the AS3 message.
Error Payload	Error	This is the mailbox that stores the extracted payload for messages that did not successfully send the MDN to the Trading Partner.

Creating the AS3 Mailboxes Manually

Use the following procedure to create the AS3 mailboxes manually:

To create the AS3 mailboxes manually (one at a time) and assign permissions to groups and users to operate on the mailboxes:

- From the **Deployment** menu, select **Mailboxes > Configuration**.
- In the **Create** section, click **Go!**
- In the Mailbox: Name page, select the parent mailbox in which the mailbox you are creating will be embedded. You can type a partial name in the **Filter by Name** field and click the  **filter** button for a filtered list.
The root mailbox is denoted by a slash (/).
- In the **Name** parameter, type a name for the mailbox you want to create. See the table above for our recommended mailbox names.
This name is used to identify the mailbox in Application.
- In the **Description** parameter, type a short description for the mailbox and click **Next**.
Use this field to describe the mailbox.
- In the Assign Groups page, use the arrows to add the groups to the Selected Groups list and click **Next**.
The group you select should contain the user accounts you set up for your partners. All groups in the Selected Groups list will have permissions on this mailbox. Click the first double arrow to add all available groups to the Selected Groups list. You can type a partial group name in the **Filter by Name** field and click the  **filter** button for a filtered list. No groups are required. Groups can be added from the Accounts menu.

- Use the arrows to add users to the Selected Users list and click **Next**.

The users you select should contain the user accounts you set up for your partners. All users in the Selected Users list will have permissions on this mailbox. Click the double arrow to add all available users to the Selected Users list. You can type a partial user name in the **Filter by ID** field and click the



filter button for a filtered list. Users can also be added from the Accounts menu.

- Click **Next**.
- In the Confirm page, verify your mailbox configuration and click **Finish**.
- Complete steps 1 through 9 for all eight AS3 mailboxes.

AS3 Mailboxes Housekeeping

For performance reasons, we need to ensure that all mailboxes do not retain a large number of messages. Application only deletes messages from the InboundAS3 and InboundMDN when the messages are no longer extractable. This occurs if the messages have been given an Extractable Count value when they are initially deposited into the mailboxes and when the value becomes 0. The Extractable Count value decrements by 1 on each extraction. For the IncomingAS3 and IncomingMDN mailboxes, the Extractable Count value is defined on the FTP Server Adapter instance that has been configured to put messages into these mailboxes, while the other mailboxes have their Extractable Count value defined in the AS3 Partner Wizard UI.

For the other mailboxes used in AS3, we need to create an instance of the Mailbox Scheduled Delete Service to delete the messages. The options provided with the Mailbox Scheduled Delete Service include setting the number of elapsed days before the message gets deleted, the type of message that needs to be deleted, and the different mailboxes which require the delete action and the frequency of the schedule.

Messages need to be deleted in order to archive or purge the business process and document associated with the message. Once this is done, normal purge and archiving functionality will be implemented on all completed business processes and the corresponding document.

See *Managing Services and Adapters* for more information on Scheduling Services.

Use the following procedure to create an instance of the Mailbox Scheduled Delete Service.

- From the **Administration Menu**, select **Deployment > Services > Configuration**.
- In the Services Configuration page, in the **Create** section next to **New Service**, click **Go!**
- In the Select Service Type page, type the name of the service you would like to configure or select it from the list that is available by clicking on the **list view** icon next to **Service Type** dialog box. Clicking on the **list view** icon opens a new window, where you need to select the service that you need to configure. Once you select the **Mailbox Scheduled Delete Service**, click **Save** and click **Next**.
- In the Mailbox Scheduled Delete Service: Name page, in the **Name** parameter, type a unique name.
- In the **Description** parameter, type a short description for the Service and click **Next**.

Note: Select a group can be set as **None** (default).

6. In the Properties page, complete the following parameters and click **Next**:

Field	Description
Delete only messages older than day(s)	Type the number of day(s) after which you would like the messages to be deleted. Minimum value is 1. Required.
Message Extractability	Describes the type of messages to be deleted. <ul style="list-style-type: none"> ◆ Delete Only unextractable messages - deletes the messages from which documents were not extracted during the message exchange. Default. ◆ Delete All messages - deletes all the messages from the mailbox folder. Required.
Message Name Pattern	Type the pattern of message that you would like to remove from the mailboxes. Optional.
Select Mailboxes for Message Removal	Gives you the options for the mailboxes from which you want to delete the messages. <ul style="list-style-type: none"> ◆ All Mailboxes (default). ◆ Selected Mailboxes. <p>If you select Selected Mailboxes, then you need to specify the mailbox names from which you want the messages to be deleted. You can always add more mailboxes as you need them to this list.</p> <p>Required.</p>

7. In the Schedule Type page, select the type of schedule from the following options:

- ◆ Do not use schedule (default).
- ◆ Run based on timer.
- ◆ Run daily.
- ◆ Run based on day(s) of the week.
- ◆ Run based on day(s) of the month.

8. In the Confirm page, verify the information you specified and click **Finish**.

AS3 Routing Rules

Overview

Routing rules initiate actions automatically when a message is added to a mailbox. Automatic routing ensures that the rule is evaluated at least once.

Note: By default, the evaluation of automatic rules is disabled. You need to enable them from the schedule.

When a message is added to a mailbox, any rules established for the mailbox are evaluated automatically. After evaluating automatic routing rules, Application starts any business processes that the rules are configured to run.

When a routing rule is evaluated, it searches the mailboxes defined in the rule for message names that match the pattern defined in the rule. When a match is found, the routing rule notifies the business process or contract specified in the routing rule. Depending on how the business process is defined, it may extract and process the message, extract the message and pass it to another application for processing, or notify another application to extract and process the message. If routing rules are set to be evaluated manually, they can be evaluated by a user or a business process.

You need a routing rule for both the Incoming AS3 Message (InboundAS3) and the Incoming AS3 MDN (InboundMDN) mailboxes. This routing rule is used to invoke predefined business processes to process the AS3 messages and MDNs.

If you chose to have the necessary routing rule automatically created during the partner profile creation process, then the routing rule created is named **Routing Rule created by the AS3 auto create option**. This routing rule is created during the auto-creation process and the Incoming AS3 Message (InboundAS3) and the Incoming AS3 MDN (InboundMDN) mailboxes are attached to the rule. If this routing rule already exists, the AS3 system just adds the two mailboxes to the rule. The routing rule is set up to invoke the As3MbxProcessing business process.

If you do not use the auto-create option when you create trading partner profiles, you need to create your own routing rules to invoke the As3MbxProcessing business process for the Incoming AS3 Message (InboundAS3) and the Incoming AS3 MDN (InboundMDN) mailboxes.

See *Creating an AS3 Profile* on page 32 for more information on creating the rule automatically.

Regardless of whether the routing rule is created automatically or manually, you need to schedule the Mailbox Evaluate All Automatic Routing Rules service to be executed so that it can evaluate all mailbox rules designated for automatic processing, including the **Routing Rule created by the AS3 auto create option** routing rule. In addition to this, you need to assign a user or group to the routing rule. The choice of the user or group should match the user or group assigned for the mailboxes, that is InboundAS3 and InboundMDN mailboxes. For auto created mailboxes, the admin user is assigned to the mailboxes. You need to manually assign the user or group to the routing rule because the Application allows existing mailboxes to be used. The existing mailboxes may have different user or group assigned to them.

Scheduling the AS3 Routing Rule if it Was Created Automatically

Use the following procedure to schedule the automatically created routing rule to be evaluated and run automatically:

1. From the **Deployment** menu, select **Schedules**.
2. Search (in the **by Name** section) for **MailboxEvaluateAllAutomaticRules** and select the **Enabled** check box to the left of the schedule name.
3. If you receive a status prompt, click **OK**.
4. If you want to change the frequency at which the routing rule is evaluated, click the **edit** icon to the left of the schedule name.
5. Follow the prompts of the Schedule wizard to redefine the frequency for routing rule evaluation, and click **Finish** when complete.
6. Click **Return**.

Creating the Routing Rule Manually

Use the following procedure to create the routing rule manually (if you did not have the rule created automatically during the AS3 partner profile creation process):

1. From the **Deployment** menu, select **Mailboxes > Routing Rules**.
2. In the **Create** section, next to **Create a New Routing Rule** click **Go!**
3. Specify a name for the routing rule. This name must be unique for each routing rule. It is used to identify the routing rule in other parts of Application.
4. In the Rule Application page, select the **Evaluation Mode**:
 - ◆ Evaluate Manually – The rule must be evaluated manually or evaluated using a scheduled business process.
 - ◆ Evaluate Automatically – The rule is evaluated every minute.
5. For **Action Type**, select **Business Process** so the rule notifies a business process when a match is found.
6. Click **Next**.
7. In the Rule Pattern page, select the **InboundAS3** mailbox (or the name you specified for this mailbox if you created it manually) and click the down arrow to add the mailbox to the **Selected Mailboxes** list.
8. In the Rule Pattern page, select the **InboundMDN** mailbox (or the name you specified for this mailbox if you created it manually) and click the down arrow to add the mailbox to the **Selected Mailboxes** list.
9. Specify the **Message Name Pattern** and click **Next**.

This is the message name or pattern that the routing rule searches for in the mailboxes specified. You can use an asterisk for a wildcard. You must specify a mailbox, a message name pattern, or both.
10. In the Rule Action page, select the **AS3MbxProcessing** business process and click **Next**.
11. In the Run Rule as User page, select the User from the user list that is associated with the routing rule when it is run (the User ID you configured for this partner).

12. In the Confirm page, verify the parameters and click **Finish**.
13. When the system update is complete, click **Return**.

AS3 Message Exchange

Overview

AS3 message exchange is initiated using the AS3 Build service. The contract name that you specify when you create the contracts for your trading partner is used to indicate the trading partner with whom you want to exchange the message. Application allows you to exchange single or multiple messages with your partners.

Single Message Exchange Process

In a single document exchange, you create a business process that includes the AS3 Build service (which you have configured). The AS3 payload can be retrieved from various sources (for example, retrieving from a legacy system or using the File System adapter to collect a message) and is then stored as a primary document within the business process prior to invoking the AS3 Build service. The document retrieved should not have any exclamation mark in its filename. The mailbox functionality fails if it receives any file with that character in the name.

Multiple Message Exchange Process

In a multiple document exchange, the Bulk Message Generation option (which you configure during trading partner contract creation) is used to initiate multiple exchanges with your partner. As part of the contract creation process, a scheduled business process is created. This scheduled business process, when invoked, confirms that the message exchange with your partner has not been suspended in a previous attempted exchange. It then uses the default instance of the File System adapter within the business process to collect the documents from the specified payload directory and to initiate a predefined business process.

If any connection errors occur, the message exchange to your partner is suspended for the period you specified in the contract.

Receiving an AS3 Message

AS3 and MDN messages enter Application through the FTP Server adapter. As part of configuring this adapter, you need to create User Accounts for your trading partners and assign the User IDs to the trading partner mailboxes. The necessary AS3 mailboxes were either automatically created during the creation of partner contracts or you created them manually.

During the FTP Server adapter configuration, you can indicate if SSL is required when connecting to the FTP Server. When you configure to use SSL, you must give the public certificate to your partners to use during the SSL *handshake* procedure.

For more information on configuring the FTP Server adapter, see *FTP Server Adapter Instance for AS3* on page 48.

Negative MDNs

When an error occurs in the processing of an inbound AS3 message (with an MDN request specified, a negative MDN is generated and sent back to the trading partner in the mode specified by the Responder Action.

If an error occurs in the processing of an inbound AS3 message without an MDN request specified, a workflow exception occurs and the transaction record is not stored in the MDN Correlation (MSGMDNCORRELATION) table.

Outbound Negative MDNs

When any of these error conditions occur in the processing of an inbound AS3 message with an MDN request specified, a negative MDN is generated with the following disposition-modifier values and sent to the trading partner:

Error Condition	Error Disposition-Modifier
The receiver could not authenticate the sender.	Error: authentication-failed
The receiver could not decrypt the contents of the message.	Error: decryption-failed
The receiver could not decompress the message.	Error: decompression-failed
Any other processing error (not specified above).	Error: unexpected-processing-error

The transaction status is updated to **Processed with errors** and stored in the MDN Correlation (MSGMDNCORRELATION) table.

Inbound Negative MDNs

When a negative MDN is received from a trading partner, the corresponding transaction status in the MDN Correlation (MSGMDNCORRELATION) table is updated to **Processed with errors** and the disposition type and disposition modifier values are extracted from the Disposition header of the original message.

AS3 Message Monitoring and Tracking

Overview

Monitoring messages can ensure accurate document processing. Additionally, you can use tracking options to view the correlation between an outbound message, its corresponding MDN (if any), and its state (for example, Processed without errors).

Searching for Data Flows

To trace an AS3 message from the time it transfers into Application, as it is processed by Application, through to when it is transferred out of Application to an external system, use the Data Flows page.

You can view detailed communication records associated with the document transfers integrated with a document tracking view of the message within Application.

To track an AS3 message through its data flow in Application:

1. From the Application **Administration** menu, select **Business Process > Advanced Search > Data Flows**.
2. In the Data Flows page, specify any combination of the following search criteria, as appropriate:

Field	Description	Action
Search		
Search	Previous searches that have been saved.	If available, select the previous search that uses the criteria you need to specify.
Endpoint	The remote endpoint of the data flows for which to search.	Type the endpoint (host name or IP address).
Direction	Flow of the AS3 message.	Select one of the following options: <ul style="list-style-type: none">◆ Inbound◆ Outbound
Protocol	Protocol of the data flow that you want to locate.	For an AS3 message search, select AS3 .
Status	Status of the data flow that you want to locate.	Select one of the following options: <ul style="list-style-type: none">◆ Normal◆ Error
Document Name	Name of the message for which you are searching.	For data flows associated with a specific message, type the message name.

Field	Description	Action
Data Size	Range of the size of the data for which to search.	Type a range of the size of the data for which you are searching (specify From and To values), and select the size parameter (bytes, KB, MB, or GB).
Date Range From	Messages in progress or completed after the specified start date and time.	Using the following formats, type a starting date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours. Select the calendar icon to the right of the date to access calendar information.
Date Range To	Documents in progress or completed before the specified end date and time.	Using the following formats, type an end date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours. Select the calendar icon to the right of the date to access calendar information.
Save search values using tag	A string that will name the search session to enable you to repeat the search in another session.	Type a name for the search containing the desired search criteria.
Results per Page	Number of matching results displayed per page.	Select the number of results you want displayed per page (default is 10). Valid values are: <ul style="list-style-type: none"> ◆ 10 ◆ 25 ◆ 50 ◆ 100 ◆ 200 ◆ 250 ◆ 400 ◆ 500
List Directly		
Data Flow ID	The unique identifier for the data flow.	Type the data flow identifier.

3. Click **Go!** next to the appropriate search criteria selected.

Searching for Communication Sessions

Application creates communication session records for any associated authentication, authorization, file transfer, or non-file transfer records, even if a message is not transferred and no data flow record is created. For example, session data can include anything in the AS3 process flow.

To track AS3 communication session records in Application:

1. From the Application **Administration** menu, select **Business Process > Advanced Search > Communication Sessions**.
2. In the Communication Sessions page, specify any combination of the following search criteria, as appropriate:

Field	Description	Action
Search		
Search	Previous searches that have been saved.	If available, select the previous search that uses the criteria you need to specify.
Endpoint	The remote endpoint of the communication session for which to search.	Type the endpoint (host name or IP address).
Protocol	Protocol of the communication sessions you want to locate.	For an AS3 communication session search, select AS3 .
Principal	Search for communication sessions associated with a principal participant.	Type the name of the principal participant in the communication session.
Secure Mode	Whether to search in secure mode.	Select one of the following options: <ul style="list-style-type: none"> ◆ SSL ◆ CCC
Locally Initialized	Whether to search for communication sessions that were initialized locally.	Select one of the following options: <ul style="list-style-type: none"> ◆ true (search for locally initialized sessions) ◆ false (do not search for locally initialized sessions).
Status	Status of the communication sessions you want to locate.	Select one of the following options: <ul style="list-style-type: none"> ◆ Normal ◆ Error
Connection Status	The connection status of the communication sessions.	Select one of the following options: <ul style="list-style-type: none"> ◆ ACTIVE ◆ Closed

Field	Description	Action
Date Range From	Communication sessions in progress or completed after the specified start date and time.	Using the following formats, type a starting date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours. Select the calendar icon to the right of the date to access calendar information.
Date Range To	Communication sessions in progress or completed before the specified end date and time.	Using the following formats, type an end date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours. Select the calendar icon to the right of the date to access calendar information.
Save search values using tag	A string that will name the search session to enable you to repeat the search in another session.	Type a name for the search containing the desired search criteria.
Results per Page	Number of matching results displayed per page.	Select the number of results you want displayed per page (default is 10). Valid values are: <ul style="list-style-type: none"> ◆ 10 ◆ 25 ◆ 50 ◆ 100 ◆ 200 ◆ 250 ◆ 400 ◆ 500
Search by Process ID		
Process ID	The unique identifier for the process.	Type the unique process identifier.
List Directly		
Communication Session ID	The unique identifier for the communication session.	Type the communication session identifier.

3. Click **Go!** next to the appropriate search criteria selected.

Searching for Current Messages

Application provides information about inbound and outbound documents and any designated outbound documents that cannot be processed because of an error. Viewing the information about documents can help you determine if further action is necessary.

The Current Documents feature offers the following benefits:

- ◆ You can monitor document processing to ensure documents are processing successfully, and take corrective action if necessary.
- ◆ If a problem document is noted, you can view document details with one click to see what happened.
- ◆ By default, the page is automatically refreshed every minute for the most current information.
- ◆ You can change the number of documents displayed per page, change the name of the document displayed to something more meaningful (for example, document type), and enable detailed document tracking.

To access Current Documents, go to **Business Processes > Current Documents**. The following information is available on the Current Documents page:

- ◆ Up to a week of processed documents is displayed. To view documents older than one week, use the **Advanced Search > Documents** feature.
- ◆ Documents are generally listed in the order received, with the most current documents at the top.
- ◆ Select **Automatically refresh every 20 seconds** to get current information. Deselect this option to disable the automatic refresh.
- ◆ Last update date and time displays when the page was last refreshed.

A Summary of the tracked documents is described in the following table:

Field Name	Description
Status	Green or red traffic light indicates the processing status of the document: <ul style="list-style-type: none"> ◆ Green status indicates no errors or warnings occurred during processing. ◆ Red status indicates errors or warnings were encountered during processing.
Document	Name of the document processed. This can be changed in the business process so that a meaningful name will appear instead of the default. Most pre-configured business processes already have the document name established. Click the document name to view the contents. <p>Note: You can change the metadata for your service to display a more meaningful document name, such as the document type, in Current Documents instead of the default name. The default display is the Body Name, if available, otherwise it is the document ID. Some services, such as EDI documents (EDIFACT, for example), are already configured to display the document type.</p> <p>Note: Contents will not be viewable if encrypted or obscured.</p>
Proc. ID	Processing ID assigned by Application as an identification number. Click the Processing ID to view Business Process Details.
Sender ID	ID of the document sender as found in the document. If no ID is found, Sender ID is None.

Field Name	Description
Receiver ID	ID of the document receiver as found in the document. If no ID is found, Receiver ID is None.
Correlations	Click the Correlations icon to view document correlations.
Details	If document tracking is enabled at the business process level, you can view the document history by clicking on Details from the Current Documents page.

Changing the Number of Messages Displayed

Current Documents displays the most recent 15 documents that have been processed. You can change this and display more than 15 documents per page by making an adjustment on the My Account page.

To change the number of documents displayed:

1. Select **Accounts > My Account**. The My Account page is displayed.
2. In the **Preferences** section, next to **Page Size for Current Documents**, select the number of documents you want to display on each page. Remember that the larger number you select, the more you will have to scroll to see all of the documents displayed, and the system may take longer to display results.
3. Click **Save**. Your changes are saved. Log out of Application and then log back in to see the change in preferences.

Searching for EDI Correlations

Correlation data, often called *correlations*, is defined as specific pieces of data that you may need to review in the process of monitoring, tracking, and troubleshooting. These data items are defined by type and value. These type-value pairs are known as *name-value pairs*, and are a powerful tool you can use to record and search for business process- and document-specific data. The name-value pair records are stored in the correlation table in Application.

Correlation searches rely on name-value pairs that define the specific data items you are trying to locate. These defined name-value pairs are tracking points for business processes and documents. The Correlation search feature offers the following benefits:

- ◆ You can receive the results of search queries more quickly.
- ◆ You can further refine document correlation searches by specifying matching restrictions for the indicated value of a name-value pair.
- ◆ You can further refine correlation searches by specifying a start and end date/time range.
- ◆ You can further refine EDI correlation searches by specifying a start and end date/time range for All levels.

Application enables you to find and correlate an AS3 message with an EDI document or data, group, or transaction through a link in the EDI Correlation Search details, a Document Correlation information link that displays detailed interchange information about AS3 messages.

If you are using AS3, the Document Correlation link enables you to quickly and easily view interchange details about AS3 messages, and to see the correlation between an AS3 message and a corresponding EDI document or data.

To search for AS3 correlations:

1. From the Application **Administration** menu, select **Business Process > Advanced Search > EDI Correlation**.
2. In the Search Option area, specify any combination of the following search criteria, as appropriate:

Field	Description	Action
All Level Options		
Location	EDI correlations maintained in a specific location.	Select one of the following options: <ul style="list-style-type: none"> ◆ Live Tables – Display live (active) EDI correlations. ◆ Restored Tables – Display EDI correlations restored from an offline location.
Search Level Type	EDI processing level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Interchange – For the search query, display results from the interchange level. ◆ Group – For the search query, display results from the group level. ◆ Transaction – For the search query, display results from the transaction level.
Test Mode	Mode of the Application system where documents that contain the EDI correlations were created.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ Test ◆ Production ◆ Information ◆ Interchange is a test ◆ Syntax only test ◆ Echo request ◆ Echo response
Direction	Flow of the documents that contain the EDI correlations.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ Inbound ◆ Outbound
Sender ID	ID for the organization that is sending documents.	Type the identifier of the sender.
Receiver ID	ID for the receiving organization.	Type the identifier of the receiver.

Field	Description	Action
Sender ID Qualifier	Qualifier used with the Sender ID to define the organization that is sending documents.	Type the qualifier of the sender.
Receiver ID Qualifier	Qualifier used with the Receiver ID for the receiving organization.	Type the qualifier of the receiver.
Start Date	Documents in progress or completed after the specified start date and time.	Using the following formats, type a starting date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
End Date	Documents in progress or completed before the specified end date and time.	Using the following formats, type an end date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
Interchange Level Options		
Interchange Control Number	Sequential number, located at the beginning and end of an interchange, used to verify that all interchanges sent have been received and that the information in the interchange is complete.	Type the control number that references the interchange.
Standard	EDI standard you agree to use for a trading partnership.	Type the name of the standard.
Acknowledgement Status	Status of an expected acknowledgement at the interchange level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ Waiting ◆ Accepted ◆ Accepted with Errors ◆ Rejected ◆ OverDue ◆ Received ◆ None ◆ Manually Accepted
Compliance Status	Status of compliance checking at the interchange level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ OK ◆ NOT OK

Field	Description	Action
Start Date	EDI correlations generated or completed for documents at the interchange level after the specific start date and time. This date is compared with the interchange date/time in the data.	Using the following formats, type a starting date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
End Date	EDI correlations generated or completed for documents at the interchange level before the specific end date and time. This date is compared with the interchange date/time in the data.	Using the following formats, type an end date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
Group Level Options		
Functional Group ID	ID of the functional group indicated in the document.	Type the ID of the functional group.
Group Control Number	Sequential number, used to verify that all groups sent have been received and that the information in the group is complete.	Type the control number that references the group.
Acknowledgement Status	Status of an expected acknowledgement at the group level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ Waiting ◆ Accepted ◆ Accepted with Errors ◆ Rejected ◆ OverDue ◆ None ◆ Manually Accepted ◆ Partially Accepted
Compliance Status	Status of compliance checking at the functional group level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ OK ◆ NOT OK

Field	Description	Action
Start Date	EDI correlations generated or completed for documents at the group level after the specific start date and time. This date is compared with the group date/time in the data.	Using the following formats, type a starting date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
End Date	EDI correlations generated or completed for documents at the group level before the specific end date and time. This date is compared with the group date/time in the data.	Using the following formats, type an end date and time range and select AM or PM : <ul style="list-style-type: none"> ◆ Date – MM/DD/YY ◆ Time – HR:MN Note: Defaults to a range of the last 24 hours.
Transaction Level Options		
Transaction Set ID	ID of the transaction set indicated in the document.	Type the ID of the transaction set.
Compliance Status	Status of compliance checking at the transaction set level.	Select one of the following options: <ul style="list-style-type: none"> ◆ Any (default) ◆ OK ◆ NOT OK
Message Repair Status	Status of message repair (for SWIFT documents only).	Select one of the following options: <ul style="list-style-type: none"> ◆ Any ◆ Ready for Edit ◆ Ready for Resend ◆ Aborted ◆ Resent

3. Click **Go!** to display the EDI correlation records that match your search criteria.
4. In the EDI Correlation Results page, click **info** in the Detail column for the AS3 interchange for which you want to view details.
5. In the EDI Correlation Interchange/Group/Transaction Detail Results page, click **info** to the right of Document Correlations.
6. In the Document Correlation Details page, view details about the AS3 message you selected, and about the correlation between the AS3 message and corresponding EDI document or data. The details available include:
 - ◆ time stamp
 - ◆ scope
 - ◆ process ID

- ◆ document name
- ◆ data value

Searching for EDIINT Transaction Records

In Application, you can use the Central Search pages to perform basic and advanced searches for information about EDIINT transaction records for business processes that included AS3 processing (including MDNs).

Using the EDIINT search feature, you can use tracking options to view the correlation between an outbound message, its corresponding MDN (if any), and its state (for example, Processed without errors).

To search for EDIINT transaction records for business processes that included EDI interchange processing:

1. From the **Administration** menu, select **Business Processes > Advanced Search > EDIINT**.
2. In the EDIINT Transaction Search page, complete one of the following:
 - ◆ Click **Go!** to view all EDIINT transaction records.
 - ◆ Search for specific EDIINT transaction records. Specify any combination of the following search criteria and click **Go!**

Contracts – Display the records whose contract name corresponds to the specified contract.

Status – Display the records whose status corresponds to the specified status. Statuses include ALL, Processed without errors, Processed with errors, Pending, Expired, and MIC Invalid.

Note: The status displayed is the status of the MDN as it relates to the received transaction. This status does *not* signify the result of the HTTP transfer of the MDN.

Type – Display the records whose Internet security protocol type corresponds to the specified type. Search parameters include AS3.

Note: To view only AS3 records, you will need to select AS3 in the Type list to sort by that message type.

Start Date – Display the records generated starting on the specified start dates and time.

End date/time range – Display the records generated prior to the specified end dates and time.

3. In the EDIINT Transaction Summary page, use the following fields and columns to view general processing information about business processes and perform other activities, as appropriate:

Field/Column	Description
Status	Indicator of the status of the EDIINT transaction.
ID	AS3 identifier. Click the number to display the Business Process Details page.
Duplicates	Number of messages with duplicate message IDs. Click the number to display the EDIINT Duplicate Transaction Summary page. When a message with a duplicate message ID is received, a record for a duplicate message is created. This record contains the transaction information for the instance of the message prior to receiving the duplicate. The current transaction record is updated with information about the duplicate, which is the latest instance of the message.

Field/Column	Description
Created	Date and time this transaction record was created. Records are created when messages are built or received.
State	Current state of the EDIINT transaction: <ul style="list-style-type: none"> ◆ Processed with errors - An error occurred processing the message. These are usually EDIINT specific errors returned in MDNs, such as decryption failures. ◆ Processed without errors - The message was processed successfully. ◆ Pending - An acknowledgement has not yet been received for the message. ◆ Expired - An acknowledgement was not received for the message in the required amount of time. ◆ MIC Invalid - The cryptographic hash in an MDN did not match the one calculated by the system when the message was created.
Contract	Contract associated with the EDIINT transaction.
Type	Type of communication protocol used. AS3 indicates AS3 protocol.
Acknowledged	Date and time that the message was acknowledged.

4. From the EDIINT Transaction Summary page, click the ID number to access the EDIINT Transaction Detail page. The EDIINT Transaction Detail page provides you with additional details about the EDIINT transaction. From the EDIINT Transaction Detail page, you can click the Message-ID to view the message, click the MDN Message-ID to view the MDN, or change the state of the business process.

In the EDIINT Transaction Detail page, use the following fields to review detailed process information and perform activities, as appropriate:

Field/Column	Description
ID	Number assigned to identify the EDIINT transaction.
Record created	Date and time that the record was created.
Message-ID	Identification string of the message.
State	Current state of the EDIINT transaction: <ul style="list-style-type: none"> ◆ Processed with errors - An error occurred processing the message. These are usually EDIINT specific errors returned in MDNs, such as decryption failures. ◆ Processed without errors - The message was processed successfully. ◆ Pending - An acknowledgement has not yet been received for the message. ◆ Expired - An acknowledgement was not received for the message in the required amount of time. ◆ MIC Invalid - The cryptographic hash in an MDN did not match the one calculated by the system when the message was created.
Acknowledged	Date and time that the message was acknowledged.

Field/Column	Description
MDN Message-ID	Identification string of the MDN.
Disposition	Status of the transaction. For example, processed or waiting.
SHA1 MIC	Security string information.
Contract	Contract associated with the message.
Type	Type of transmission protocol used with the message.
Sender	Sender of the message.
Recipient	Recipient of the message.
Input Documents	A link to the business document used to create the message if the transaction is for a message created by this system. This field does not appear if the message was created by a trading partner's system.
Output Documents	A link to the business documents extracted from the message, if business documents were extracted from the message. This field does not appear if no documents were extracted from the message. If processing of duplicate messages is not enabled and this transaction is not the first instance of the message, no documents are extracted from the message.

- From the EDIINT Transaction Detail page, click the Message-ID string to access the EDIINT Transaction Message contents. The Message page displays, showing the contents of the message sent in the transaction.
- From the EDIINT Transaction Detail page, click the MDN Message-ID string to access the EDIINT Transaction MDN contents. The MDN page displays, showing the contents of the MDN sent in the transaction.
- If a link is displayed in the EDIINT Transaction Summary page (Duplicates column), click the number in the Duplicates column to access the EDIINT Duplicate Transaction Summary page. The EDIINT Duplicate Transaction Summary page provides you with a list of documents that have duplicate message IDs. From the EDIINT Duplicate Transaction Summary page, you can refine the detail of your search by clicking the ID number for each duplicate document.

In the EDIINT Duplicate Transaction Summary page, use the following fields to review detailed processing information, as appropriate:

Field/Column	Description
Status	Indicator of the status of the EDIINT transaction.
ID	Number assigned to identify a business process. Click the number to display the Business Process Details page.
Duplicates	Number of messages with duplicate message IDs. Click the number to display the EDIINT Duplicate Transaction Summary page. When a message with a duplicate message-ID is received, a record for a duplicate message is created. This record contains the transaction information for the instance of the message prior to receiving the duplicate.
Created	Date and time this transaction record was created. Records are created when messages are built or received.

Field/Column	Description
State	<p>Current state of the EDIINT transaction:</p> <ul style="list-style-type: none"> ◆ Processed with errors - An error occurred processing the message. These are usually EDIINT specific errors returned in MDNs, such as decryption failures. ◆ Processed without errors - The message was processed successfully. ◆ Pending - An acknowledgement has not yet been received for a message. ◆ Expired - An acknowledgement was not received for the message in the required amount of time. ◆ MIC Invalid - The cryptographic hash in an MDN did not match the one calculated by the system when the message was created
Contract	Contract associated with the EDIINT transaction.
Type	Type of communication protocol used. AS3 indicates AS3 protocol.
Acknowledged	Date and time that the message was acknowledged.

8. From the EDIINT Duplicate Transaction Summary page, click the ID number to access the EDIINT Duplicate Transaction Detail page. The EDIINT Duplicate Transaction Detail page provides you with additional details about the business process. From the EDIINT Duplicate Transaction Detail page, you can click the Message-ID to view the message, and click the MDN Message-ID to view the MDN.

In the EDIINT Duplicate Transaction Detail page, use the following fields to review detailed process information and perform activities, as appropriate:

Field/Column	Description
ID	Number assigned to identify the EDIINT transaction.
Record created	Date and time that this record was created.
Message-ID	Identification string of the message.
State	<p>Current state of the EDIINT transaction:</p> <ul style="list-style-type: none"> ◆ Processed with errors - An error occurred processing the message. These are usually EDIINT specific errors returned in MDNs, such as decryption failures. <p>Note: When a negative MDN is received from a trading partner, the corresponding transaction status in the MDN Correlation (MSGMDNCORRELATION) table is updated to Processed with errors and the disposition type and disposition modifier values are extracted from the Disposition header of the original message.</p> <ul style="list-style-type: none"> ◆ Processed without errors - The message was processed successfully. ◆ Pending - An acknowledgement has not yet been received for a message. ◆ Expired - An acknowledgement was not received for the message in the required amount of time. ◆ MIC Invalid - The cryptographic hash in an MDN did not match the one calculated by the system when the message was created.
Acknowledged	Date and time that the message was acknowledged.

Field/Column	Description
MDN Message-ID	Identification string of the MDN.
Disposition	The disposition of the message according to the MDN.
SHA1 MIC	Security string information.
Contract	Contract associated with the message.
Type	Type of transmission protocol used with the message.
Sender	Sender of the message.
Recipient	Recipient of the message.
Output Documents	A link to the business documents extracted from the message, if business documents were extracted from the message. This field does not appear if a document was not extracted from the message. If processing of duplicate messages is not enabled and this transaction is not the first instance of the message, no documents will be extracted from the message.

9. From the EDIINT Duplicate Transaction Detail page, click the Message-ID string to access the EDIINT Transaction Message contents. The Message page displays showing the contents of the message sent in the transaction.
10. From the EDIINT Duplicate Transaction Detail page, click the MDN Message-ID string to access the EDIINT Transaction MDN contents. The MDN page displays showing the contents of the MDN sent in the transaction.