

Sterling Standards Library

Using AS1

Version 6.1

Sterling Commerce
An IBM Company

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Using AS1 With the Application

AS1 Overview

The application supports the AS1 protocol. AS1 is a secure messaging protocol created by a working group of the Internet Engineering Task Force (IETF) for transmitting EDI documents over the internet. Although designed with EDI in mind originally, AS1 can be used to transmit documents of any type. AS1 uses IETF secure e-mail standards (S/MIME, CMS), mail transfer protocols (SMTP, POP3, and IMAP), and extensions to the disposition notification standard.

Security, authentication, message integrity, and privacy are assured by the use of encryption and digital signatures. Another important feature, non-repudiation, makes it impossible for the recipient of a message to deny having received it.

To use AS1 with the application you are required to have an Internet connection capable of sending and receiving e-mail, processes for building and parsing AS1 compliant messages and notifications, and digital certificates.

How the Application Supports AS1

This table describes how the application supports AS1:

Functionality	Instance	Details
Services and Adapters	EDIINT Message service	The EDIINT Message service builds and parses AS1 compliant messages and notifications. This service does not send or receive data. Sending and receiving data is done by the SMTP and mail client services, respectively.
	EDIINT Acknowledge Check service	Determines whether an MDN acknowledgement has been received for an EDIINT message within a business process. The EDIINT Acknowledge Check service is designed to be used in a business process or series of related business processes that build and send a message after the steps for building and sending the message have been completed.
	B2B SMTP Client adapter	This adapter transports the AS1 message to the trading partner. For the B2B SMTP Client adapter, create a new instance if necessary. Also, you need to know the actual DNS name or address of the mail server that you want to use.
	B2B Mail Client adapter	This adapter picks up messages from a mail server. It then invokes a business process for each message as specified by you in its configuration settings. For AS1, this adapter should invoke the EDIINT Message Service business process for parsing.
Business processes	There are no predefined business processes for AS1. You can create the custom business process to suit your requirements.	A business process is a series of linked software and possibly human activities that accomplishes a business goal. The activities in a business process are primarily performed by components known as services and adapters, and are orchestrated by the application engine. Write a business process to poll a designated mailbox, download, and parse messages and to use the payload according to your business requirements.

Functionality	Instance	Details
Trading Partners	The Trading Partner user interface enables you to create AS1 trading partner profiles, and contracts between different trading partners.	Create one or more appropriate AS1 profile for your trading partners and for yourself Create one contract for inbound messages and one contract for outbound for each trading partner relationship.
Monitoring	Search for AS1 information and monitor AS1 messages.	Use EDIINT (Business Process > Monitor > Advanced Search > EDIINT) for searching the AS1 transactions. The EDIINT search function is only intended to track documents with MDNs. Use the application search functionality to search for AS1 information.

Prerequisite Knowledge

The following are prerequisites to using the application with the AS1 standard:

- ◆ The audience using this software should be familiar with the application (including the SMTP Server configuration) and the AS1 standard.

Note: This documentation is not intended to explain the AS1 standard.

Implementing AS1 with the Application

To use AS1 with the application, you must complete the following tasks:

1. Write a business process to poll a designated mailbox, download, and parse messages and to use the payload according to your business requirements.
2. Ensure that necessary servers and adapters are installed and configured.
3. Collect this information about yourself and your trading partner:
 - ◆ Name
 - ◆ Identifier – Unique string that identifies this trading partner
 - ◆ Address – Conventional street address, city, and zip or postal code
 - ◆ Sending and receiving protocols and settings for SMTP
 - ◆ IP addresses and port numbers
 - ◆ Enveloping properties
 - ◆ Passwords
4. Determine if you and your trading partner are going to use digital certificates for secure data transport. If so, create and check in those certificates.
5. Create one or more profiles for you and your trading partner.

6. Create one contract for inbound and one contract for outbound for each trading partner relationship.
7. Send and receive AS1 messages to and from your trading partners.
8. To track AS1 messages or data flows, use the EDIINT Transaction Search functionality.

AS1 Business Processes

Overview

To help you accomplish your business goals, the application provides a Graphical Process Modeler (GPM) (in conjunction with predefined services) to implement the AS1 protocol.

Note: You need to create your own business processes, and you can incorporate these business processes into your own Business Process Modeling Language (BPML).

An AS1 implementation uses business processes along with services to build and transmit messages to trading partners. You need to write at least two business processes. The first business process is to parse messages which you assign to the Mail Client Adapter. This process can have just one step that calls an instance of the EDIINT Message service that you have already configured for parsing. The second business process or set of processes that you need to create is for building and sending messages. This can be a simple two-step process that uses an instance of the EDIINT Message service configured for message building to build a message, and an instance of the SMTP adapter to send it to a complex set of business processes (that can be modeled after the application's implementation of AS2) to build and send messages, check for acknowledgements, and use retry logic. This process or set of processes can be launched in any manner. For example, you can output data from the translator, pick up data from mailboxes or the file system, input data through the application user interface, and so forth.

The business processes can also be reused across multiple trading partners, a different set of processes for each trading partner, or some combination.

Message Disposition Notification

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.

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 and the original message ID too.
- ◆ 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. It can also provide the non-repudiation of a receipt. 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 requested through message headers. The EDIINT Message service determines whether to send an MDN to a trading partner for a message sent by the trading partner after examining the headers during parsing of the message.


Running, Restarting, and Stopping Business Processes

Using the Business Processes Monitor, you can not only obtain general and detailed processing information about your 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, the 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.
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 business processes:

1. From the application **Administration** menu, select **Business Processes > Monitor**.
2. In the Business Process Monitor, select the Instance **ID** for the appropriate business process.
3. 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**.

4. To stop the business process, select **Terminate**. When you are prompted to confirm that you want to terminate or expedite the process, click **OK**.

5. 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.

6. 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.

AS1 Trading Partner Overview

AS1 Trading Partners in the Application

To exchange AS1 documents between trading partners, the application uses the customized business processes you created that incorporate the EDIINT Message service and the SMTP Client adapter. 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 company.

A trading relationship is only defined between two different partners, and in this relationship you must create a trading partner profile for yourself and for each trading partner with whom you exchange AS1 documents. Each time you create a partner using the Trading Partner user interface, you need to create one inbound contract and one outbound contract for each relationship between that partner profile and your company.

Before You Begin Using AS1 with the Application

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

- ◆ Create or check in certificates for your own profile(s) for the secure transport of data.

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

- ◆ Create or get e-mail accounts for your profile(s)
- ◆ For each partner collect the following information:
 - ◆ Name and address information
 - ◆ Certificates
 - ◆ E-mail server and port information for the partner's mail server to which you are going to send messages or the mail server you use to relay messages to your partners if you have one.

Building an AS1 Message

EDIINT Message service does the message building for AS1, and you need to use an instance of the EDIINT Message service to build messages. You can either create a separate service instance for building messages to each partner or you can reuse an instance for all the partners. In order to build an AS1 message, the EDIINT Message service needs to be provided Contract ID and build action parameters, (Contract-IDs and build actions are assigned to service instances during creation, but they can be overridden in BPML). If they are not overridden, the values assigned at creation are used when the service is invoked. When the EDIINT Message service builds an AS1 message, the information about security preferences, acknowledgement preferences, and transport is pulled from the consumption profile.

See the *Service and Adapters* documentation for more information about the EDIINT Message service.

Note: These profiles are part of contracts that are provided to the service when building messages or looked up based on sender and recipient addresses when parsing messages.

Parsing an AS1 Message

Parsing of an AS1 message is performed by the EDIINT Message service. When you parse an AS1 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.

AS1 Trading Partner Profiles

Overview

For AS1, you need to create the trading partner profiles using the **Trading Partner > Setup > Advanced** menu from the application user interface.

Typically, when a company uses AS1, it has one or more one-to-many relationships with other companies. Each one-to-many relationship can be visualized as a wheel with one company at the hub of the wheel and other companies at the ends of the spokes. Different types of information is necessary depending on whether your company is a “hub” or a “spoke” in this relationship. Specifically, the hub has the private keys for its own certificates and each spoke has the public keys (for certificates), as well as communication and security requirements such as algorithm choices. In principle, the hub could have a different set of security requirements when a spoke sends data to it than when it sends data to a spoke. This is not generally done in practice and is not supported by the application.

Trading partner profiles are complex enough that the same types of record can be used to maintain information about both hubs and spokes. However, different parts of the trading partner profiles become important depending on whether the profile is used to maintain information about a hub or spoke. For example, a hub has to have system certificates configured; a spoke does not.

Creating an Identity Record for You and Your Trading Partner

In AS1, you must create an identity record for both you and your trading partner.

To set up an identity record for your trading partner:

1. From the **Trading Partner** menu, select **Setup > Advanced > Identities**.
2. Next to Create New Identity, click **Go!**
3. In the Base Identity page, for Select Base Identity, select the name of the identity record that you created for your company, and click **Next**.
4. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name of your AS1 trading partner. Required.
Reference URL	Internet address of your AS1 trading partner. Optional.
DUNS	Unique 9-13 character identification your AS1 trading partner number, as issued by Dun & Bradstreet Corporation. Optional.
Identifier	Primary ID of your AS1 trading partner. Use DUNS number. Required.
Address Line 1	Conventional mailing address of your AS1 trading partner. Required.
Address Line 2	Additional mailing address information of your AS1 trading partner. Optional.
City	City where your AS1 trading partner is located. Required.

Field	Description
State or Province	State or province where your AS1 trading partner is located. Optional.
Zip or Postal Code	ZIP Code or postal code where your AS1 trading partner is located. Required.
E-mail Address	E-mail address of your AS1 trading partner. Optional.
Telephone Number	Telephone number of your AS1 trading partner. Optional.
Time Zone	Time zone where your AS1 trading partner is located. Optional.
Country	Country where your AS1 trading partner is located. Optional.
Federation Peers	Discovery point URL for the trading partner you want to associate this identity with. Optional.
VAT ID	The value-added tax identifier.
International Notification E-mail	The Internet E-mail address used for notification.
Lookup ID	The identifier used lookup the Internet Notification E-mail.
Lookup ID comments	Comments regarding the specified lookup identifier.

5. Click **Finish** to add the identity of this trading partner.

You are now ready to create a transport record for this AS1 trading partner.

Creating a Transport Record

To define how to send a AS1 message using SMTP, you must create a transport record.

To create a transport record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Transports**.
2. Next to Create New Transport, click **Go!**
3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the transport record to create for this AS1 trading partner. Required. Note: You should use part of a company name or DUNS in this field and an indicator that references AS1.
Identity	This is the identity object that owns the transport record. You got to select this value from the list of available ones. Required.

4. In the Communications page, complete the following fields and click **Next**:

Field	Description
Receiving Protocol	Communications protocol supported by this transport record when receiving data. Select SMTP. Required.
Sending Protocol	Communications protocol supported by this transport when sending data. Select SMTP. Required.
End Point IP	If the profile is for a trading partner, it is required. It should be the IP of the partner's e-mail server or of an e-mail server you use to relay messages to the partner. If this profile is for your company, this must be the address of your own e-mail server. Required.
End Point Port	This should be the port for the e-mail server in the End Point IP. Required.

5. In the Communications: Security page, complete the following fields and click **Next**.

Field	Description
SMIME Encryption User Certificate	<p>Encryption certificate of the trading partner. The EDIINT Message service uses the certificate to encrypt messages. This value does not have to be assigned if this profile is for your organization, unless you want to use it to perform loopback testing. Optional.</p> <p>Note: The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>
SMIME Decryption Certificate (System Store)	<p>Name of certificate that your organization is using for decryption. The parameter is required if this profile is used as the hub and your trading partners (the spokes) send encrypted messages. It is not needed if this profile is for a trading partner - a spoke. Optional.</p> <p>Note: You must have already checked the certificate in to the application for it to be displayed in this list. The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>
SSL	<p>Whether Secure Sockets Layer (SSL) must be active. Optional. Valid values are:</p> <ul style="list-style-type: none"> ◆ NONE – SSL is not used by the transport. ◆ MUST – Transport uses this protocol configured for SSL encryption (default). <p>Note: If MUST is specified, the asset protection key must allow SSL for the appropriate protocol.</p>
Key Certificate Passphrase	Passphrase that protects the server key certificate. Required if SSL value is anything other than NONE.

Field	Description
Cipher Strength	Strength of the algorithms used to encrypt data. Optional. Valid values are: <ul style="list-style-type: none"> ◆ ALL ◆ WEAK – Required for international e-business if government regulations prohibit STRONG encryption from being exported. ◆ STRONG – Required if SSL value is anything other than NONE (default).
Key Certificate (System Store)	Private key and certificate for the component. Used to encrypt and decrypt messages. This certificate is used for SSL client authentication when the application is connecting to another system as a client using the profile. This is only required if this profile is for a trading partner and the partner requires SSL client authentication when you connect with SSL and you are using SSL. Also used by the EDIINT Message service as the key for decrypting encrypted messages. <p>Note: You must have already checked the certificate in to the application for it to be displayed in this list. The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>
CA Certificates	This certificate is used to validate the server certificate of an SSL server to which you connect using this profile. Required if the Server SSL value is Must or Optional. <p>Note: The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>

6. In the SMTP Settings page, complete the following fields and click **Next**:

Field	Description
Mailbox Name	Type a name for the mailbox. A generic name like INBOX can be used. Required.
From	This should be the same e-mail address as your own profile for AS1. Required.
To	This is the e-mail address the partner uses for AS1. Required.
CC	Carbon copy e-mail address. Optional.
BCC	Blind carbon copy e-mail address. Optional.

7. On the Transport Account page, complete the following fields and click **Next**:

Field	Description
User ID	Unique ID associated with a transport record. Optional.
Password	Password that authenticates the user ID. Optional.

Field	Description
Confirm Password	Password typed in the Password field. Optional.

- In the Confirm page, verify the settings that you have selected and click **Finish** to update the transport record.
- Click **Return** to continue.

You are now ready to create a document exchange record.

Creating a Document Exchange Record

To describe properties of the documents and messages passed between you and your AS1 trading partner, you must create a document exchange record.

To create a document exchange record:

- From the **Trading Partner** menu, select **Setup > Advanced > Document Exchange**.
- Next to Create New Document Exchange, click **Go!**
- In the New Document Exchange: Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the document exchange to create for this AS1 trading partner. Required. Note: You should use part of the company name or DUNS number in this field.
Identity	Unique ID associated with the identity that links this document exchange record to the identity record. You need to select an identity from the available list. Required.

- In the Retry Settings page, complete the following fields and click **Next**:

Field	Description
Number of Retries	Number of times that the application tries to contact the trading partner before timing out. Type the value 3 . Required.
Retry Interval (sec)	Number of seconds that the application waits before trying again to contact the trading partner after the previous attempt timed out. Type the value 30 . Required.
Persist duration (sec)	Number of seconds that a message received is kept before being passed to the integration engine. This parameter is not applicable for AS1.

- In the Enveloping Properties page, complete the following field and click **Next**:

Field	Description
Protocol	Used only by the EDIINT Message service. The security protocol to be used is SMIME for AS1 (if not exchanging AS1 messages, select None). Required.

6. You can skip this step if the record is created for a hub, This is because the choices in an exchange are taken from the profile for the spoke. If this record is for a spoke, select the algorithms that you and your trading partner agree to use for the different cryptographic operations. If you do not pick a payload type that uses one of those operations, the algorithm choice for it will not be used. Do not skip this step if the record is for a spoke.

Note: Encryption algorithms are not used for signatures; that is why there are two distinct fields for encryption and signature algorithms.

In the Security page, complete the following fields and click **Next**:

Field	Description
Encryption Algorithm	<p>Used by the EDIINT Message service only if a payload type requiring encryption is selected. Identifies the encryption algorithm to be used. Required if Protocol value is anything other than None. Required.</p> <p>Supported algorithms are:</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
Signing Algorithm	<p>This is the message digest algorithm used when computing signatures, if a payload type requiring a signature is selected. Required.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ MD5 ◆ SHA1 <p>Note: We recommend that you do not use MD5 unless there is no other alternative in order to interoperate with an older application and you determine interoperating outweighs the security risk of using MD5. Use MD5 as less times as possible.</p>
Signing Key Certificate	<p>The key certificate for the encryption key of the identity, if available, that is used to encrypt the message when using SMIME. Required.</p> <p>Note: This is also the private key the EDIINT Message service uses to sign messages it builds. To guarantee that messages are signed, you have to select a payload type in the packaging that incorporates signing.</p> <p>You must have already checked the certificate in to the application for it to be displayed in this list. The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>

Field	Description
Signing User Certificate	<p>This is a certificate from the trusted certificate store that you want to use to verify signed messages from the trading partner. You need to select a certificate if this profile is for a spoke and you expect the partner to sign messages.</p> <p>Note: This is also a trusted certificate that the EDIINT Message service uses to verify signatures on messages it receives.</p> <p>You must have already checked the certificate in to the application for it to be displayed in this list. The Configure Certificates link enables you to open a common window displaying all certificates list that you may use. This window is used to select multiple certificates for the purpose of seamless transition from one certificate to the other when its validity expires and to select the policy for this certificate. The default policy is Closest non-future Go Live Date or the only certificate in the list.</p>

- In the Confirm page, verify the settings that you have selected and click **Finish** to update the document exchange record.
- Click **Return** to continue.

You are now ready to create a delivery channel record.

Creating a Delivery Channel Record

A delivery channel record links a document exchange record and a transport record. The combination of these two records provides a complete description of how a trading partner expects to receive documents. A delivery channel record eliminates re-entry of document exchange information for every transport protocol. You can define several delivery channels in one trading profile.

To create a delivery channel record:

- From the **Trading Partner** menu, select **Setup > Advanced > Delivery Channels**.
- Next to Create New Delivery Channel, click **Go!**
- In the Information page, complete the following fields and click **Next**:

Field	Description
Name	<p>Name for the delivery channel record to create for this trading partner profile. Required.</p> <p>Note: You should use part of a company name or DUNS in this field or use an indicator that references AS1.</p>
Identity	<p>Unique ID that links the delivery channel record to the identity record. The Identity needs to be selected from the available list. Required.</p>

4. In the Channel Definition page, complete the following fields and click **Next**:

Field	Description
Transport	Name of the transport that links this delivery channel record to the transport records. You need to select the name from the available list. Required.
Document Exchange	Name of the document exchange associated with this delivery channel record. You need to select the name from the available list. Required.

5. You can skip the Security page as it is not applicable for AS1 and click **Next**:

6. In the Delivery Settings page, complete the following fields and click **Next**:

Field	Description
Receipt Type	Used only by the EDIINT Message service. The type of receipt to request. Valid values are Message Disposition Notification (MDN) and NONE (default). Optional.
Receipt Signature Type	This is the message digest algorithm used when computing signatures, if a payload type requiring a signature is selected. Optional. Valid values are: <ul style="list-style-type: none"> ◆ None ◆ MD5 ◆ SHA1 Note: Selection of a value other than None prompts the EDIINT Message service to request a signed Message Disposition Notification (MDN) when building messages to the trading partner. We recommend that you only use MD5 if your implementation requires this algorithm.
Receipt Timeout	Time-out value for receipt of expected MDNs, in seconds. Default is 3600 seconds. Optional.
Delivery Mode	Used only by the EDIINT Message service to deliver receipts for messages received. Required. Valid values are: <ul style="list-style-type: none"> ◆ Asynchronous HTTP – Used for AS2 and RosettaNet if you want an asynchronous receipt. ◆ Asynchronous HTTPS – Used for AS2 if you want an asynchronous receipt. ◆ Asynchronous SMTP – Used for AS1 and AS2 if you want an asynchronous receipt. ◆ Synchronous – Used for AS2 if you want a synchronous receipt. Select Synchronous here for AS1 as synchronous means that only the Disposition-Notification-To header is placed in a message. The other options add the Disposition-Notification-Options header. Only Disposition-Notification-To is needed for AS1, since it is assumed all messages are exchanged through e-mail.
Receipt to Address	Not applicable for AS1.

7. In the Confirm page, verify the settings that you have selected and click **Finish** to update the document channel record.
8. Click **Return** to continue.

You are now ready to create a packaging record.

Creating a Packaging Record

To define how to build and package outbound messages to your AS1 trading partner, you must create a packaging record.

To create a packaging record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Packaging**.
2. Next to Create New Packaging, click **Go!**
3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the packaging record to create for this trading profile. Required.
Message Parsable	Whether the message can be parsed. This parameter is not required for AS1.

4. In the Packaging Settings page, complete the following fields and click **Next**:

Field	Description
Payload Type	<p>Used only by the EDIINT Message service to create EDIINT messages. The payload is the document at the inner level of the message. The payload type describes the message format for transporting documents. Required.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ Plain Text – Payload is not signed and it is not encrypted. ◆ 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 (default).

Field	Description
MIME Type	<p>Used only by the EDIINT Message service. Indicates how to package the lowest level of payload content (the document at the inner level of a message) to be sent. 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>Valid values are:</p> <ul style="list-style-type: none"> ◆ Text – For XML or text ◆ Application – For EDI or any other type of data ◆ Message ◆ Audio ◆ Video ◆ Image <p>Select Application from this field. Required for AS1.</p>
MIME Sub Type	<p>Used only by the EDIINT Message service. Indicates how to package the lowest level of payload content (the document at the inner level of a message) to be sent. Required. Valid values are:</p> <ul style="list-style-type: none"> ◆ EDI-X12 (default) ◆ EDIFACT ◆ EDI-Consent ◆ Octet-stream – For any type of data ◆ XML ◆ Plain <p>You can select any of the MIME subtypes, as appropriate for your data. However the subtype Plain only has meaning when the MIME type is text. You should not use Text/Plain unless you are sending pure ASCII text that conforms to RFC 2822.</p>
Compress Data	<p>Used only by the EDIINT Message service. Specifies whether the payload must be compressed. Required. Required for AS1.</p> <p>Valid values (specific to AS1) are:</p> <ul style="list-style-type: none"> ◆ None – Do not compress messages ◆ Low – Low message compression ◆ Medium – Medium message compression ◆ High – Compress all messages ◆ Default – default value

5. In the Confirm page, verify the settings that you have selected and click **Finish** to update the packaging record.

6. Click **Return** to continue.

You are now ready to create a profile record.

Creating a Profile Record

A profile record is a type of record that links a delivery channel record and a packaging record. You have to create at the least two profiles to use AS1, one for you and the other for your trading partner. You need to create these profile records for AS1 because the EDIINT Message service and the SMTP adapter need to use them.

To create a profile record:

1. From the **Trading Partner** menu, select **Setup > Advanced > Profiles**.
2. Next to Create New Profile, click **Go!**
3. On the Information page, complete the following fields and click **Next**:

Field	Description
Name	Name for the profile record to create for this trading partner profile. Required.
Identity	Unique ID that links this profile to the identity record. Select an identity from the available list. Required.

4. On the Profile Definition page, complete the following fields and click **Next**:

Field	Description
Profile Type	Type of profile that must be used for data exchanged for this trading profile. Required. Valid values are: <ul style="list-style-type: none"> ◆ EDI (Electronic Data Interchange) ◆ AS1 (Applicability Statement 1) ◆ AS2 (Applicability Statement 2) <p>Note: The recommended method of adding an AS2 Trading Partner is located at Trading Partner > AS2 on the Admin Console.</p> <ul style="list-style-type: none"> ◆ RN (RosettaNet) Ensure that AS1 is selected. Required for AS1. Default value is EDI.
GLN	Global location number of this trading partner. Optional. Not used to implement AS1. Leave this field blank.
Delivery Channel	Unique ID that links this profile to the delivery channel record. Select the name from the available list. Required.
Packaging	Unique ID that links this trading profile to the packaging record. Select the name from the available list. Required.
Provider	Although this is not applicable for AS1, the application requires you enter a value. Do not leave this field blank.

5. On the Business Processes page, to enable the predefined business process (default) to communicate with the trading partner for the specified mode, verify that **Not Applicable** is selected from the

appropriate message mode list or lists (Send, Respond, Request Response) because there are no predefined business processes for AS1, and click **Next**.

6. In the Confirm page, verify the settings that you have selected and click **Finish** to update the profile record.
7. Click **Return** to continue.

You have now finished creating trading profiles and can create the appropriate contracts.

AS1 Trading Partner Contracts

Overview

Each time you create a partner, you need to create two contracts between the partner profile and your company, one contract for sending data to the partner and the other for receiving data from the partner. The roles should be reversed.

Creating an AS1 Contract

You must create a contract for all trading partners with whom you exchange AS1 messages. Create inbound and outbound contracts in which you link the application profile of your AS1 to your partner's AS1 profile.

- ◆ **Outbound contract:** In the AS1/AS2 outbound contract to partner (spoke) from client (hub), hub is the Production Profile and spoke is the Consumption Profile. You do not need to specify a business process for the outbound contract for AS1.
- ◆ **Inbound contract:** In the inbound contract, order is inverted and you specify the process that is to receive the decrypted inbound payload after the EDIINT service in parse mode completes its functionality. The business process that contains the EDIINT service in parse mode is the one that you specified in the URI (Uniform Resource Identifier) of the B2B SMTP Mail client adapter in the first step. The process that you specify in the contract is not that process but instead is the process that the EDIINT Parse service invokes and passes the decrypted payload to.

To create a trading partner contract:

1. From the Administration menu, select **Trading Partner > Contracts**.
2. Under Create, next to New Contract, click **Go!**
3. In the Information page, complete the following fields and click **Next**:

Field	Description
Name	Descriptive name of the contract. Required.
Start Date	Start date of the contract. Valid value is any date in the format <i>MM/DD/YYYY</i> . Must be less than or equal to End Date. Default value is the current date. Required.
End Date	Expiration date of the contract. Valid value is any date in the format <i>MM/DD/YYYY</i> . Must be greater than or equal to Start Date. Default value is one week from the current date. Required.
Status	State of the composition/negotiation process that creates the contract. Default value is SIGNED. Optional. Valid values are: <ul style="list-style-type: none">◆ PROPOSED – Contract being negotiated by the parties. The first stage of negotiation.◆ AGREED – Contract agreed upon by the parties. The next stage of negotiation.◆ SIGNED – Contract signed by the parties. The final stage of negotiation. The contract is usable.

4. In the Contract Definition page, complete the following fields and click **Next**:

Field	Description
Production Profile	Unique ID of the profile that acts as the producer in this contract. Select the value from the available list. Values are displayed in format <i>identity name-profile name</i> . Required.
Consumption Profile	Unique ID of the profile that acts as the consumer in this contract. Select the value from the available list. Values are displayed in format <i>identity name-profile name</i> . Required.
Business Process	Select a business process from the available list for this contract. Optional.

5. Do you plan to use the contract with EDI?
 - ◆ If Yes, go to step 6 to select an EDI extension.
 - ◆ If No, select **None** and click **Next**. Click **Finish** to complete the contract.
6. On the Extensions page, you do not need to select any of the available extension types for AS1.
7. In the Confirm page, verify the information you specified and click **Finish** to add the extension.
8. Click **Return** to continue.

Editing an AS1 Contract

To update a trading partner contract:

1. From the **Administration** menu, select **Trading Partner > Contracts**.
2. Under List All, click **Go!**
3. Click **Edit** next to the trading partner contract you want to make changes to.
4. Make the required changes and click **Next**, until you have reviewed all of the contract data.
5. Click **Save**.
6. Click **Finish**.
7. Click **Return** to continue.

Deleting an AS1 Contract

To delete an AS1 contract:

1. From the **Administration** menu, select **Trading Partner > Contracts**.
2. Under List All, click **Go!**
3. In the list, locate name of the trading partner whose information 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 Delete Resources 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.

Editing an AS1 Trading Partner

Introduction

Editing an AS1 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 Trading Partner Information

To edit trading partner record information:

1. From the **Administration** menu, select **Trading Partner > Setup > Advanced > Record Name**. Where **Record Name** is one of the following:
 - ◆ Identities
 - ◆ Transports
 - ◆ Document Exchange
 - ◆ Delivery Channels
 - ◆ Packages
 - ◆ Profiles
2. Use Search or List to locate the record you want to change.
3. Next to the record name, click **Edit**.
4. On the Information page of the trading partner record, make changes and click **Next** until you reach the Confirm page.
5. Click **Finish** to update the trading partner record information.
6. Click **Return** to continue.

Deleting an AS1 Trading Partner

Introduction

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 a trading partner record:

1. From the **Administration** menu, select **Trading Partner > Setup > Advanced > Record Name**. Where **Record Name** is one of the following:
 - ◆ Identities
 - ◆ Transports
 - ◆ Document Exchange
 - ◆ Delivery Channels
 - ◆ Packages
 - ◆ Profiles
 2. Use Search or List to locate the record you want to delete.
 3. Next to the record name, 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 Delete Resources 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.

Configuring the B2B Mail Client Adapter

The B2B Mail Client adapter enables the application to:

- ◆ Collect mail from an RFC 1725-compliant mail server using the POP3 protocol or an RFC 2060-compliant mail server using the IMAP protocol.
- ◆ Locate an appropriate business process or contract.
- ◆ Start a business process based on the message picked up from the mail server.

For example, your company needs to collect EDI data from a remote mail server using the POP3 protocol. The B2B Mail Client adapter can collect the data from the appropriate mailbox and forward the results through a contract or business process to the translation services. Set up a B2B Mail Client Adapter configuration to pull incoming EDIINT messages from the mailbox and bootstrap the inbound EDIINT process. To configure the B2B Mail Client adapter, you must specify settings for the following fields in the application:

1. From the Administration Menu, select **Deployment > Services > Configuration**.
2. In the Services Configuration page, in the **Create** section next to **New Service**, click **Go!**
3. 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 B2B Mail Client Adapter, click **Save** and click **Next**.
4. In the B2B Mail Client Adapter: Name page, complete the following details:

Field	Description
Name	Unique and meaningful name for the service configuration. Required.
Description	Meaningful description for the service configuration, for reference purposes. Required.
Select a Group	Select one of the options: <ul style="list-style-type: none">◆ None – You do not want to include this configuration in a group at this time.◆ Create New Group – You can enter a name for a new group in this field, which will then be created along with this configuration.◆ Select Group – If you have already created one or more groups for this service type, they are displayed in the list. Select a group from the list.
Default Message Access Protocol	Select the mail accessing protocol: POP3 or IMAP. Required.
Default Mail Server	Name of the mail server to which the application connects. This is any valid DNS name or a dotted decimal address. Required.
Default Mail Server Port	Port number that is monitored for activity by the remote system. This must be a valid port in the range 1025-65535 and must be 1 - 5 numeric characters. Required.
User Name	Name that identifies the mailbox to provide when connecting to a mail server. This field is case-sensitive. Required.

Field	Description
Password	Password used for authentication when connecting to a mail server. This field is case-sensitive. Required.
Connection Retries	The number of time Mail Client adapter tries to connect to the mail server when there is a connection error. Minimum valid value is 1 (default is 3). Optional
Retry Interval (sec)	The retry interval specifies in seconds. Minimum valid value is 1 (also the default). Optional.
Max Messages per Session	Maximum number of messages that can be processed per mail download session. Minimum valid value is 1 (default is 500). Optional.
Remove inbox mail messages	To remove the mail message from the inbox after successfully downloading them. Only configurable if using IMAP protocol. If POP3 is used to access the mailbox, the messages will be removed from the inbox after they have been successfully downloaded. Optional. Valid values are Yes and No (IMAP only). Required.
SMIME Encryption User Certificate	Not used in this release. Leave at default.
SMIME Decryption Certificate (System Store)	Not used in this release. Leave at default.
SSL	Whether to use SSL to connect to mail server. Valid values are Must and None. If Must is selected, you must configure the SSL parameters that follow Key Certificate Passphrase. Optional.
Key Certificate Passphrase	The passphrase for the key certificate. Optional.
Cipher Strength	The cipher strength use for SSL. Valid values are Strong, Weak, and All. Optional.
Key Certificate (System Store)	This is a system certificate used for SSL client authentication. Also, it is the Object ID that contains the private key and public certificate. Optional.
CA Certificates	One or more certificates used to authenticate the SSL server. Also, it is the Object ID that contains the trusted certificate authority public certificate. Optional.
Add New URI	Click add to add a new Uniform Resource Identifier (URI).
Note: The following parameters are displayed only if Add New URI is selected.	
URI	Uniform Resource Identifier. Use the same name that is provided in the User Name field above. This field is case-sensitive and is 1 - 8 alphanumeric characters beginning with a letter. Required.
Select one of the following to associate with the URI for processing.	
Business Process	Name of the business process you want the B2B Mail Client adapter to start. This field is valid only if no contract is defined. Either a contract or a business process can be associated with this adapter, but not both.
Contract	Name of the contract to associate with this adapter. This is valid if no business process is defined. Either a contract or a business process can be associated with this adapter, but not both.

Field	Description
Send Raw Messages	Whether to send raw messages that preserve the mail headers in the body of the message. Valid values are Yes and No. You must set this to Yes if you are going to process the messages with the EDIINT Message service.
Insert into Process Data	Whether to extract all the mail headers information from the mail message and put them into process data. Optional. Valid values are All mail header fields and Selected mail header fields (default is All mail header fields). If Selected mail header fields is chosen, the application will only attempt to extract the values you choose from the following four pages. Note: It is not necessary to insert the headers into process data for AS1.
Note: The following parameters are only displayed if you selected Selected mail header fields .	
Mail Header: Originator Fields	Only displayed if Selected mail header fields was selected for Insert into Process Data parameter. Select one or more of the following fields to insert into process data: From, Resent-from, Sender, Resent-Sender, Reply-to, Resent-reply-to. Optional.
Mail Header: Receiver Fields	Only displayed if Selected mail header fields was selected for Insert into Process Data parameter. Select one or more of the following fields to insert into process data: To, Resent-to, CC, Resent-cc, BCC, Resent-bcc. Optional.
Mail Header: Reference Fields	Only displayed if Selected mail header fields was selected for Insert into Process Data parameter. Select one or more of the following fields to insert into process data: Message-id, Resent-message-id, In-Reply-to, References, Keywords. Optional.
Mail Header: Other Fields	Only displayed if Selected mail header fields was selected for Insert into Process Data parameter. Select one or more of the following fields to insert into process data: Subject, Comments, Encrypted, Date, Resent-date, Attachments. Optional.
Run as User	Type (or select from the list) the user ID to be associated with business process instances of this service.
Use 24 Hour Clock Display	Select to specify times for this schedule using the 24 hour clock. Leave blank to use 12 hour clock and AM and PM.

Field	Description
Schedule	<p>Information about scheduling the adapter configuration to run and to start the specified business process.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ◆ Do not use schedule <p>If this field is selected, this service does not start a business process and does not run on a schedule.</p> ◆ Run based on timer <p>Valid values are the hour and minutes at which to run the service. Indicate whether you want the service to run at startup.</p> ◆ Run daily <p>Valid values are the hour and minutes at which to run the service, daily. You can also specify a time interval. Indicate whether you want the service to run at startup.</p> ◆ Run based on day(s) of the week <p>Valid values are the day of the week, the hour, and the minutes at which to run the service. You can also specify a time interval. Indicate whether you want the service to run at startup.</p> ◆ Run based on day(s) of the month <p>Valid values are the day of the month (including the last day of the month (LDOM)), hour, and the minutes at which to run the service. You can also specify a time interval. Indicate whether you want the service to run at startup.</p>

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

AS1 Message Exchange

Overview

In AS1 message exchange, 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. The application allows you to exchange single or multiple messages with your partners.

Message Exchange Process

In a message exchange, you create a business process that includes the EDIINT Message service (which you have configured). The AS1 payload is retrieved from a mail server and is then stored as a primary document within the business process prior to invoking the EDIINT Message service. Only one business document per AS1 message is supported when building AS1 messages. The EDIINT message service builds one message only for each invocation. Also, the SMTP client adapter can send only one message per invocation.

The message exchange process is as follows:

1. You build messages and MDNs and send them to an e-mail address that belongs to your trading partner.
2. You pick up messages and MDNs from a mail server and parse them accordingly.

The mail client adapter picks up all the messages within a specified mail server and will invoke a business process for each message. Each business process has one message as the primary document.

For more information on configuring the B2B Mail Client adapter, see *Configuring the B2B Mail Client Adapter* on page 35.

AS1 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 EDIINT Transaction Records

In the 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 AS1 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 > Monitor > 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.
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:
 - 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 transfer of the MDN.
 - Type – Display the records whose Internet security protocol type corresponds to the specified type. Search parameters include AS1.
 - Note:** To view only AS1 records, you will need to select AS1 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.

Field/Column	Description
Status	Indicator of the status of the EDIINT transaction.

Field/Column	Description
ID	This is a numerical identifier assigned to the transaction. Click the number to display the EDIINT Transaction Detail 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.
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. AS1 indicates the AS1 protocol.
Acknowledged	Date and time that the message was acknowledged.

- 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.

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 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.
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.

5. 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.
6. 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.
7. 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 EDIINT Transaction Detail 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.
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 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. AS1 indicates AS1 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.

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.
Acknowledged	Date and time that the message was acknowledged.
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.