

GXS EDI Services



# **In-Network Translation User's Guide**

**Third Edition (November 2005)**

This book replaces GC34-3282-01.

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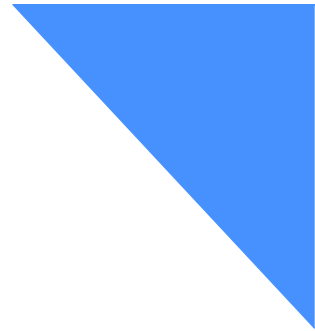
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## To the reader

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This book introduces in-network translation, a service component of G International EDI Services, formerly IBM EDI Services. It describes how you can use it with Information Exchange and, optionally, with Web-based components of EDI Services. In-network translation enables fast and effective data translation and message delivery between you and your trading partners.

## Who should read this book

This book is for data processing professionals who need to exchange application, EDI, or Web-based data with their trading partners.

## Conventions used in this book

This book uses the following terminology and type conventions:

- The term *network* as used in this book refers to the network provided by AT&T Global Network Services in the United States and other countries.
- Any references to EDI Services components that are part of the EDI Server software infrastructure are in boldface.
- All prototypes and arguments are in monospaced font.
- All control record layout descriptions are in table format.
- All field descriptions are in paragraph format.
- Glossary terms are in italics the first time used.

## Related books

The following book contain information related to the topics covered in this book. For your convenience, this document can be viewed on the EDI Services Web site at: [http://www.gxsolc.com/edi\\_bes.html](http://www.gxsolc.com/edi_bes.html).

- *Using EDI VAN Interconnect*, GC34-2263

Information regarding other services and products for e-commerce and EDI is available from your GXS sales representative.



## Related Web sites

A wealth of information about e-commerce and EDI is also available on the Web. The following sites contain valuable introductory information.

### [EDI Services](#)

**[http://www.gxsolc.com/edi\\_bes.html](http://www.gxsolc.com/edi_bes.html)**

This site provides extensive information on the EDI Services components, access to the Information Exchange Administration Services and the forms exchange and Web data transfer Web sites, tutorials and tours, software downloads, frequently asked questions, product documentation, and GXS Community Support numbers.

### [Global Exchange Services \(GXS\)](#)

**<http://www.gxs.com>**

This site provides information about the services and products provided by GXS for e-commerce. It also links to information about our e-business services, which provide business-to-business, e-commerce capabilities.

### [Data Interchange Standards Association \(DISA\)](#)

**<http://www.disa.org/>**

This site describes the development and use of EDI standards in e-commerce.

### [United Nations Directories for Electronic Data Interchange for Administration, Commerce, and Transport \(UN/EDIFACT\)](#)

**<http://www.unece.org/trade/untdid/>**

This site provides information about the UN/EDIFACT standard, including the uniform rules of conduct, a glossary of UN/EDIFACT terms, and UN/EDIFACT directories. The site also includes the home page for the Economic Commission for Europe (ECE).

### [United Nations Common Coding System \(UNCCS\)](#)

**<http://www.ext.grida.no/undp/>**

This site provides information about e-commerce and EDI, including links to the *Electronic Commerce Resource Guide* and frequently asked questions.



## Introducing in-network translation

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Whether you need a quick solution, an interim solution, or a total solution to address your EDI translation needs, EDI Services can help you today, tomorrow, and in the future.

This book provides an overview and describes how in-network translation can help you and your trading partners expand your involvement in the e-commerce community.

## Choosing an in-network translation solution

GXS offers the following three ways to use the in-network translation component of EDI Services:

- Standard in-network translation
- In-network translation with customized outsourcing elements
- Customized outsourcing

These solutions provide flexible options that are certain to meet your company's unique and varied needs.

### Standard in-network translation

This choice is best described as an “outtasking” solution. When you outtask the translation and mapping, you still manage and maintain the relationship with your trading partners, but without the complexities associated with operating your own EDI software. In-network translation provides the necessary resources to map the various EDI transactions and provide all the necessary computer resources to run and support the data translation. This solution also lets your EDI staff focus more on strategic issues.

## In-network translation with customized elements

This choice lets you start with the standard in-network translation component and add optional services that would normally be associated with a customized outsourcing offering. For example, you can add a full-time, dedicated help desk for your customers, or you can add a full-time, dedicated project manager. This solution does not offer the comprehensive scope of customized outsourcing, but it does allow you to tailor the outsourcing to your needs and budget.

## Customized outsourcing

This choice provides the option of having GXS run and manage your entire EDI program, including translation map creation, trading partner enablement, and help desk support<sup>1</sup>. In this solution, you assign management of your EDI operation to GXS. GXS can then manage your hardware, software, and people resources and provide a dedicated help desk for your trading partners, dedicated hardware and software resources, and a dedicated project staff to run the operation. This solution is the most flexible and most comprehensive of the EDI outsourcing offerings.

## Delivering data translation services

In-network translation delivers data translation services in a variety of ways, including the following:

### Application data

- *From* application data that you send to your trading partners  
*To* an EDI format
- *From* application data that you send to your trading partners  
*To* another application data format

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1. This option is not available in all countries.

## EDI data

- *From* EDI data that your trading partners send to you  
*To* your application data format
- *From* EDI data that your trading partners send to you  
*To* another EDI format or another version of the same EDI format
- *From* EDI data that you created  
*To* another EDI format or another version of the same EDI format
- *From* application data that your trading partners send to you  
*To* your application data format

## Web application data

- *From* EDI data or application data that you send to your trading partners  
*To* a Web application format that can either be accessed from a standard Web browser or used with a Web-based application
- *From* data that your trading partners enter on a Web page  
*To* the EDI or application data format that your application requires

## Understanding how in-network translation works

In-network translation sends and receives EDI and non-EDI data through Information Exchange, the mailbox component of EDI Services. Information Exchange provides you with one or more electronic mailboxes and forwards your data through the network to another Information Exchange mailbox, to another component of EDI Services, or to a value-added network (VAN). Information Exchange will also receive into your mailboxes data sent to you from any of those components.

With Information Exchange, you and your trading partners can exchange messages and documents — from a small e-mail note to a large multi-megabyte file, and you can efficiently transmit all EDI transactions — from purchase orders to invoices and shipping notices to catalog updates.

Figure 1 on page 4 illustrates how you can use in-network translation with Information Exchange.

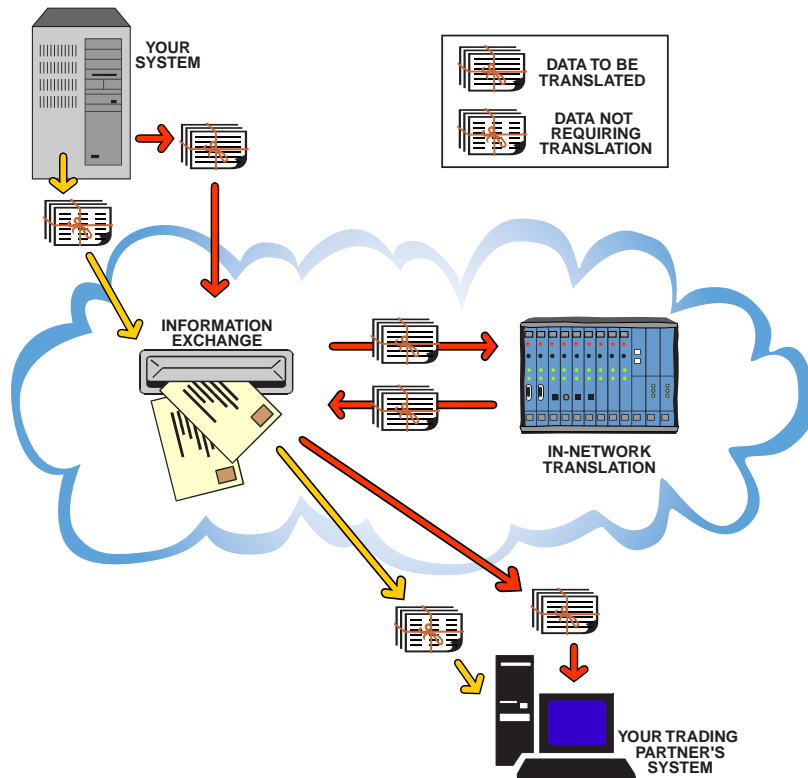


Figure 1. Using in-network translation with Information Exchange

After receiving your documents from Information Exchange, in-network translation translates them to a specified data format and forwards the translated data to the appropriate Information Exchange mailbox or an equivalent mailbox service offered on another value-added network (VAN).

In-network translation uses customized translation maps and trading partner relationships, defined to your specifications, to translate and route the data. Trading partner relationships identify the translation map to be used, depending on the sender, receiver, and the type of transaction.

In the management of data translation and processing, there are several controls in place to deliver a high-quality service. GXS has established monitoring tools and reporting as a part of the management process. These include: translation tracking database, translation error notification, and intelligent processing.

Strict monitoring and tracking of the data flow allows GXS to detect problems early. Our process minimizes any potential impact to your standard business operation and ensures that we deliver a high-quality service.

As a part of our management and operation procedures, we may recommend ways to increase the efficiency of the data handling and ultimately increase the overall service level and responsiveness.

## Accessing in-network translation

You can take advantage of the data reformatting and message delivery features of in-network translation by using one or more of the following components of EDI Services:

- Information Exchange communications clients and access methods, which include:
  - Expedite and Expedite Base licensed programs
  - TCP/IP FTP gateway for the Internet
- Web-based IBM EDI Services:
  - Web data transfer
  - Forms exchange

The hardware and software infrastructure that supports EDI Services Web-based components is referred to as the *EDI Server*. The **EDI Server** not only provides these Web-based components, but also bridges them to the traditional components, such as Information Exchange and in-network translation, so messages can flow seamlessly across the networks. When you sign up for any of the Web-based components, you are provided with an EDI Server mailbox that has the same address format as an Information Exchange mailbox.

With in-network translation, you can translate some or all of the documents that you exchange with both your traditional and your Web trading partners. A *Web trading partner*, as used in this guide, refers to a trading partner using Web-based IBM EDI Services to exchange documents with your business via a Web browser.

## Implementing in-network translation

Contact the GXS sales representative to begin planning for in-network translation. Once you make the decision to implement in-network translation, GXS will assign a project coordinator to guide you through the implementation process.

The following five implementation steps ensure the successful deployment of a new translation map. This book describes each of these steps.

### Decide how you will access in-network translation

You can access in-network translation from a variety of Information Exchange communications clients and access methods as well as Web-based components of EDI Services. Because this choice may affect the application data format, you must make this decision first.

Chapter 2 describes how implementation differs for each of these choices.

### Begin the setup process

To begin the setup process, you will provide GXS with the following:

- Your application data format
- Your EDI mapping requirements
- Your requirements for Web-based forms
- Your choice of processing options
- A list of your trading partners

Chapter 3 describes the many options available for reformatting your data and walks you through the setup process.



### Create the translation map and definitions

GXS creates the translation map based on your translation needs, as described in your implementation guide.

Chapters 3 and 4 describe the translation map and show how your data flows through in-network translation, based on your data format type and the format your data is being translated into.

### Test connectivity and data translation

GXS tests the connection between your Information Exchange mailbox and your trading partner's mailbox and verifies that the translation map and trading partner relationship are both defined correctly.

Chapter 3 discusses the type of testing and transaction monitoring GXS performs to ensure that your data is translated correctly and efficiently.

### Sign off for production processing

Once both you and GXS verify that your data transmits and translates correctly, you will be asked for your signoff. At that time, your files will move into production for translation into the data format you require.

Chapters 4 through 6 describe how your data is processed and monitored. They also describe the translation reports and e-mail messages you may receive.

## Sending and receiving data through in-network translation

In-network translation supports the translation of data as it flows into and out of your company's system. The data to be translated goes to and from your business and through in-network translation as one of the following:

- Outbound flow
- Inbound flow

Figure 2 shows how data flows between you and your trading partners.

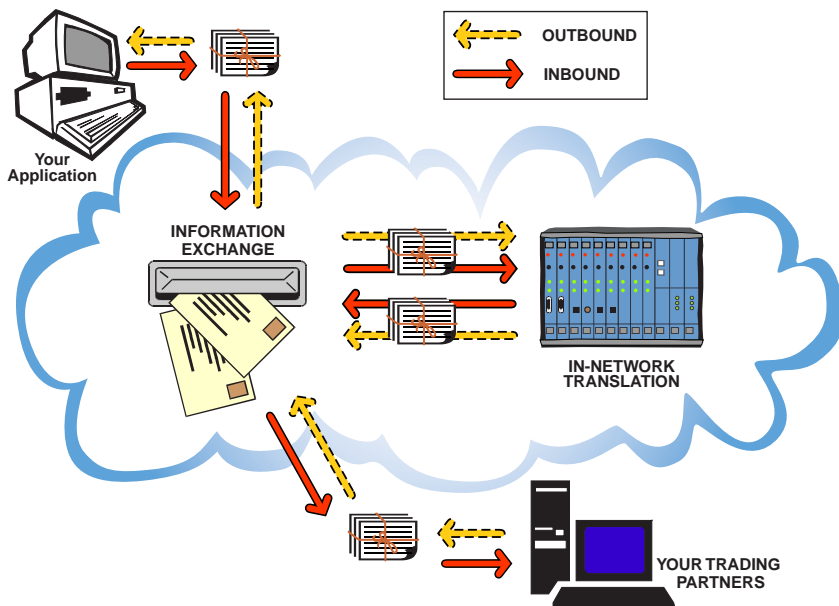


Figure 2. How inbound and outbound data flows to and from your business

## Outbound flow

In-network translation receives the data you send through Information Exchange, translates the data as requested (so it can be recognized by your trading partners' EDI systems, business applications, or Web browsers), and sends the translated data to your trading partners. This is called *outbound flow*, where data goes from you to your trading partners.

You can send application and/or EDI data to in-network translation via Information Exchange. Your trading partners' addresses are identified in the trading partner relationship definition. When the translated data is forwarded to your trading partners, status information, acknowledgments, and reports are returned to your mailbox. Additionally, you can request to receive additional notification during translation.

See "Outbound processing flow" on page 42 for a typical processing sequence for outbound transactions.

## Inbound flow

For incoming transactions, in-network translation processes the data that you are to receive, translates it into the format you requested, and sends the translated data to you. This is called *inbound flow*, where data comes from your trading partners to you.

Your trading partners can send application data and/or EDI data to in-network translation via Information Exchange. After translating this data, in-network translation forwards the translated data, again via Information Exchange, to your mailbox.

See "Inbound processing flow" on page 43 for a typical processing sequence for inbound transactions.

## Features and benefits

With in-network translation, you can create or maintain relationships with trading partners who use the services of Information Exchange or the services of another network interconnected with Information Exchange.

You can also develop new relationships with trading partners on the Web via Web-based IBM EDI Services. Using these Web-based services, you can extend your reach to include virtually any potential trading partner by using the power of the Web and employing its global reach.

## Basic features

The in-network translation component includes the following basic features:

- Translation to and from the following EDI data formats:
  - ANSI X12
  - ODETTE
  - UN/EDIFACT
  - UN/TDI
- Translation to and from application data formats and other non-EDI data formats
- Reformatting options during translation, including:
  - One EDI data format to another version or format
  - Outbound non-EDI data to an EDI data format
  - Inbound non-EDI data to an EDI data format
  - Outbound EDI data to a non-EDI data format
  - Inbound EDI data to a non-EDI data format
  - One application data format to another application data format
- Delivery to and from your Information Exchange or EDI Server mailbox
- Operational support, including:
  - Registering your trading partners
  - Scheduling of jobs
  - Checking for errors
  - Intelligent processing of application data
  - Generating acknowledgments
  - Optional tracking translation databases
  - Sending translation activity and run-time reports

## Monitoring features

For each transaction, GXS monitors the following:

- Transfer of data from the sender's mailbox to in-network translation
- Time the data was received by in-network translation
- Completion of data translation and processing
- Transfer of data into the recipient's mailbox
- Placement of tracking data into the tracking and history database

By monitoring and tracking the data flow, GXS can detect errors and minimize any potential impact to your standard business operation. GXS may also make recommendations for increasing data handling efficiency.

## Benefits

When you use in-network translation to meet your data translation needs, the potential benefits may allow you to:

- Offload EDI operational tasks to focus on your core business needs
- Achieve a single source of accountability for your mission-critical EDI operations
- Eliminate the need to learn EDI complexities or to create and maintain EDI translation software
- Exchange EDI transactions with your non-EDI business partners
- Extend e-commerce capabilities to your non-EDI business partners
- Serve Web-based forms on Web servers operated and maintained by GXS.

## Value-added services

EDI Services provides the following value-added services to make in-network translation a total solution for your data reformatting and messaging needs:

- EDI VAN Interconnect
- Data security

### EDI VAN Interconnect

You may find that some of your trading partners use EDI services provided by other value-added networks (VANs) that are interconnected with Information Exchange. In these instances, in-network translation can translate your documents and then forward them to the mailbox services of other EDI providers supported by EDI VAN Interconnect. This means you can do business electronically with countless EDI trading partners around the world, without having to personally manage the complexities of data translation. Currently, EDI VAN Interconnect supports trading relationships between customers of more than 30 EDI value-added networks.

### Data security

GXS respects your security concerns and ensures that the servers used for transactions over the Web meet Internet security requirements, such as server authentication, non-repudiation, encryption, and certification. The Web servers are also located in a secure building and networked with firewall protection.

Secure Sockets Layer (SSL) is another security feature that EDI Services supports. SSL is a security protocol providing data encryption, server authentication, and message integrity. In addition, **Web data transfer** and **forms exchange** are protected by user IDs and passwords.

Information Exchange is protected by account IDs, user IDs, and multiple levels of passwords. The Extended Security Option (ESO) is available for additional password and mailbox security. You can also use Information Exchange Administration Services to specify which user IDs can send messages to your mailbox.

## In-network translation scenarios

The following scenarios about Companies A, B, and C illustrate how others are using in-network translation.

- Company A

Company A has decided to focus on their core business requirements and not invest in an EDI system at all. Because some of Company A's trading partners require them to exchange EDI transactions, they rely on in-network translation to meet their data formatting needs.

- Company B

In an effort to streamline their order fulfillment process, Company B has decided to require all of their trading partners to submit orders as EDI transactions. To have their non-EDI-enabled trading partners meet this requirement without investing in expensive application and translation software, Company B has decided to sponsor Web-based forms that their trading partners can access with a standard Web browser to enter order details.

Order data collected from the Web form is automatically forwarded to in-network translation for translation to the EDI format Company B requires. In-network translation then routes the translated EDI transactions to Company B's Information Exchange mailbox.

Company B can then process these transactions along with the other EDI transactions they already receive from their EDI-enabled trading partners.

- Company C

Company C is using in-network translation to meet their data formatting requirements. They already have in-house EDI translation systems; however, they are not Year 2000 ready. Because some of their trading partners require that all business transactions go through Year 2000 ready translation systems, Company C is temporarily using in-network translation until their own systems are updated and Year 2000 ready.





## Planning for in-network translation

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You can access in-network translation from a variety of EDI Services components, such as:

- Any Information Exchange communications client or access method, such as the Expedite or Expedite Base licensed programs or TCP/IP FTP gateway for the Internet
- Any Web-based EDI Services component, such as Web data transfer or forms exchange

Your trading partners can also access in-network translation using the same components. Alternatively, they can communicate with you from another value-added network EDI service using the EDI VAN Interconnect component.

Figure 3 on page 16 shows how you and your trading partners can access in-network translation to use its data translation and delivery services.

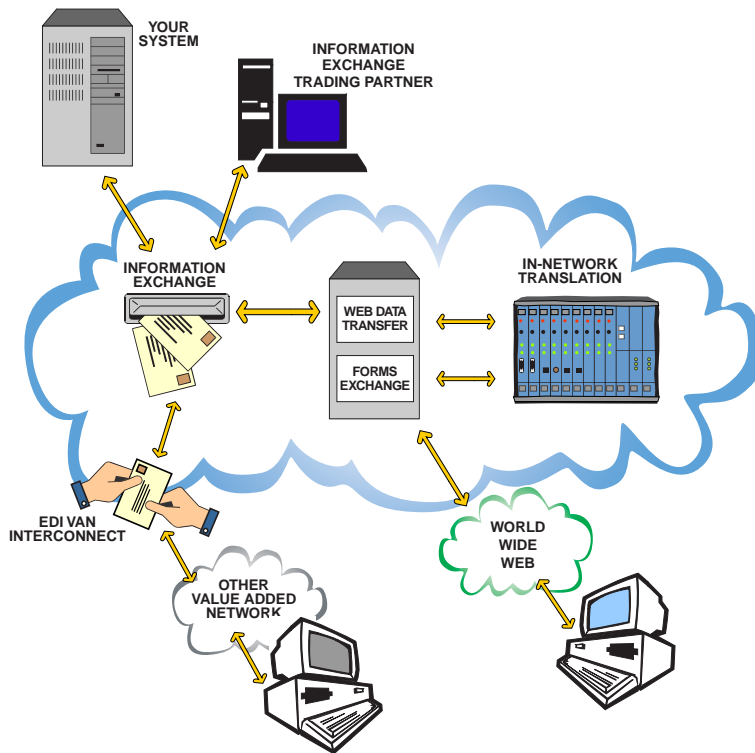


Figure 3. Accessing in-network translation for data translation and delivery

## Using Information Exchange

You can access in-network translation using any of the Information Exchange communication clients or access methods. Then, you can exchange data with your trading partners through Information Exchange by having the data you send or receive routed through in-network translation during transmission. This allows you to exchange EDI and non-EDI data with a trading partner whether or not your businesses are EDI-enabled.

If you currently use Information Exchange to exchange EDI documents with your trading partners, you can exchange non-EDI documents with other trading partners in the same way. The data to be translated is sent to an Information Exchange in-network translation mailbox, which is specifically set up to handle your translation requirements. Any data that arrives in that mailbox is automatically forwarded to in-network translation for processing before it is delivered.

## Using Web-based EDI Services

With Web-based EDI Services, your trading partners do not need expertise in EDI or EDI data standards; they only need to have access to the Web from a standard Web browser. They can easily exchange data in files and Web-based forms over the Internet with you, as follows:

- When your trading partners use Web data transfer, they can exchange data files with you without having any communications software other than a standard Web browser.
- When your trading partners use forms exchange, you must sponsor the development of Web-based forms. Working with you, GXS will create easy-to-use forms that either:
  - Collect the data you require from your trading partners  
OR
  - Present data from your business application to your trading partners
- When your trading partners send data to you from the Web, whether via Web data transfer or forms exchange, in-network translation can convert it into the application data format or EDI format that you require. Similarly, when you send data to your Web-based trading partners, in-network translation can convert it into a Web-based format.
- The Web data transfer and forms exchange components are served from Lotus Domino groupware, which is the server component of Lotus Notes. Files are transferred between these components and in-network translation as attachments to Lotus Notes mail messages. During transmission, you can have in-network translation convert these documents to or from a Web-based format defined in a translation map.

The Web server for Web data transfer and forms exchange is fully operated and maintained by GXS.

## Communicating with Information Exchange

If you currently use Information Exchange to exchange data with some or all of your trading partners, you can communicate with your Web trading partners in exactly the same way. For example, if you use Expedite to communicate with Information Exchange, you can continue to use the same SEND or SENDEDI command to send application data or EDI messages.



**NOTE:** When sending EDI data, use the Expedite SENDEDI command, or the equivalent function of other interfaces, to send the data to in-network translation. Doing this ensures that the data is identified as EDI data to in-network translation, which can then process it in the appropriate manner. Sending EDI data to in-network translation without this identification requires that additional customized processing be put in place on the EDI Server.

You can also continue to use the same RECEIVE or RECEIVEEDI commands that you currently use to receive application data or EDI messages from your traditional trading partners.

Information Exchange mailboxes are assigned to your Web trading partners. Although these mailboxes are actually located on the EDI Server, your application can specify the addresses in the same way as for any other Information Exchange mailbox.

Depending on how your EDI application works, you can have one mailbox address assigned for each partner or one for all partners. This is possible because in-network translation uses the logical address contained within the UNB, ISA, or STX EDI envelope to determine the translation map and routing. In-network translation does not use the physical Information Exchange address (system, account, and user ID) for routing if the data is identified as EDI data.

## Sponsoring in-network translation

The translation process requires that certain parameters and definitions are in place to specify how EDI and non-EDI documents will be translated and routed between your Web trading partners and your existing applications. Therefore, these definitions must be available before you exchange documents of different formats between the Web and Information Exchange.

It is likely that you will want to use one or more of the Web-based EDI Services to communicate with a wider range of trading partners. If this is true, you will probably want to use your existing application or EDI data format to communicate with your Web trading partners.

## Using Web data transfer

Your Web trading partners can use Web data transfer to quickly and securely send, process, manage, and receive files using a Web browser. As an Information Exchange user, you just need to know their Information Exchange format address to begin exchanging EDI and non-EDI files with them.

You can, optionally, access in-network translation to meet the data reformatting needs of your trading partner. If your partner cannot handle your current format, you could implement in-network translation and then exchange translated documents with that trading partner.



**NOTE:** If your Web data transfer trading partners control access to their accounts, make sure that your Information Exchange address is either *on* their permit list or *not on* their block list.

## Using forms exchange

**Forms exchange** includes all the features of Web data transfer, plus the additional feature of Web-based forms. With the use of a standard Web browser and a connection to the Internet, your non-EDI trading partners can access your customized Web-based forms to conduct business with you.

In-network translation will convert the data your trading partners enter in the forms to the EDI or application data format you require. **Forms exchange** also uses in-network translation to convert the application or EDI data that you send to your trading partners into a suitable format to be presented on a Web-based form.

Before you and your trading partners can use forms exchange, you will need to sponsor the Web-based forms required by your business and identify the Web trading partners authorized to use them. You will also need to arrange for your trading partners to sign up for the forms exchange component. That is, request that they call the GXS Community Support, or an equivalent organization in their country, to register as customers of forms exchange and establish their own accounts.

## Sponsoring Web-based forms

GXS will work with you to create easy-to-use Web-based forms that collect the data your business requires. Your Web trading partners can access these forms on a GXS-managed server once they register for forms exchange.

### Types of forms

You may find you need to work with the following types of forms:

- **Data Entry forms**

These are forms that your trading partner, as a forms exchange user, can fill in to start a business transaction with you.

- **Presentation forms**

These are forms that present details of a business transaction, such as a purchase order, ship notice, or invoice, to your trading partner on a Web page. Your trading partner can view or print these forms.

- **Turnaround forms**

These are forms that are automatically prepopulated, or prefilled, by forms exchange with data from a presentation form. Typically, these forms are generated from an action button on a presentation form.

For example, you can send a purchase order to your trading partner to be viewed from a Web browser as a presentation form. Then, by simply clicking on an action button on the Web page, your trading partner can request an order acknowledgment form or an invoice form. The form displays as a data entry form, partially prepopulated with details from the purchase order. Your trading partner then fills in the remaining fields on the data entry form and sends the order acknowledgment or invoice back to you. Turnaround forms can also calculate quantities and prices.

### Custom features

You can choose from a number of custom features when you sponsor a form. For example, the form can:

- Perform validation on data entered in some or all the fields on the form
- Save the data in certain fields to minimize retyping common information
- Create turnaround forms in response to a form
- Generate an acknowledgment that confirms the form was successfully delivered and translated

### Web-based form specifications

To have data translated to or from a Web-based form, you need to provide GXS with an example of how you want the form to look on the Web page. You must do this for each document type you want to exchange with your trading partners.

Each document or drawing must identify the following:

- What types of fields (data entry or display) are needed on the form
- Which fields, if any, should be saved as default information
- Which data entry fields require pull-down selection lists
- Which fields should be validated before sending the form
- Which form should be generated automatically as a turnaround form
- Which fields in the turnaround form should be prepopulated, either with details from the preceding presentation or data entry form, or with a predefined static value

### Web site settings

You will need to specify how certain information about the form will display at the EDI Services Web site, including:

- What is the category where the form will be placed
- Which field, such as the purchase order or invoice number, will be placed in the Delivered/Document Info column in the document list

You will also need to provide your trading partner with instructions on how to use your form (or forms) on the Web.

### Trading partner authorization

GXS will allow only authorized trading partners to use your forms, so you will need to specify each trading partner to be authorized. GXS will also protect access to your forms with user authentication. See “Data security” on page 12 for more information.

## Setting up translation for Web-based data

In-network translation uses predefined maps and trading partner relationships to identify the translation map to be used, depending on the sender, receiver, and the type of transaction. Thus, before your trading partner can use Web data transfer or forms exchange to exchange translated data with you, you must go through the implementation process to create the following:

- Your translation map
- Your trading partner definitions  
If you are using your own translation services software, define each Web trading partner to your own software.
- Your Web-based forms (forms exchange only)
- Your authorized trading partners list

When your Web trading partner fills in one of your Web-based forms and submits it, the data in the form will be sent via in-network translation to your Information Exchange mailbox.

### Web data transfer

In-network translation optionally receives your outbound data, translates it to the required data format, and delivers it to your trading partner's EDI Server mailbox.

### Forms exchange

In-network translation performs the following functions with your Web-based forms:

- Receives inbound Web-based data from forms on the EDI Services Web site, translates it into an EDI or application data format, and delivers it to your Information Exchange mailbox.
- Receives your outbound EDI or application data, translates it into a Web-based form, and delivers it to your trading partner's EDI Server mailbox.



## Defining translation maps

In-network translation requires a translation map that defines how each field or parameter in a Web-based form or application relates to your EDI or application data format.



**NOTE:** To keep your translation maps efficient and cost-effective, consider setting up a translation map that exchanges only essential details between your existing application and the Web. For example, some of the existing data may be for your automated systems or for your EDI-enabled trading partners and may have little relevance to a trading partner who wants to receive or enter data via a Web page.

### Web data transfer

If you want to exchange translated data with your Web data transfer trading partners, you will need to provide details about the EDI or application format you are using. The translation map must specify the desired format type, your name, and your partner's name, which will be used in headers during the translation process.

### Forms exchange

You will need to provide details about the EDI or application format you are using to help GXS relate your data format to the Web-based forms. The translation map must specify the desired format type, your name, and your partner's name, which will be used in headers during the translation process.

## Defining trading partner relationships

The trading partner relationship definition identifies the translation map used to translate a specific transaction type when it is exchanged between you and your trading partners.

### Forms exchange

You will need to make a list of the trading partners that you want to authorize to access and use the Web-based forms that you sponsor. GXS will define the trading partner relationships for you. Each trading partner on your list will need to call GXS and register as a forms exchange user. Then, GXS will create a mailbox that they can use to communicate with you.



## Implementing in-network translation

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When you begin to implement in-network translation, you will work with GXS to determine how in-network translation will best serve your needs.

This chapter discusses the implementation process and describes the procedures before and after signing a contract with GXS to help you better understand the process, the decisions, and the information needed.

Implementing in-network translation consists of the following key phases, which may differ depending on your location:

- Getting started
- Setting up
- Testing
- Operating and maintaining

The time and effort required to set up in-network translation depends on the following factors:

- Your level of experience with EDI
- If you are replacing an existing translation system
- The number, type, and complexity of documents, forms, or applications
- The number and type of trading partners

## Getting started

A GXS representative will discuss your business and translation needs with you and answer any questions you may have about in-network translation. In addition, GXS will discuss the various implementation choices available to you.

Once you begin seriously considering in-network translation, GXS will assign a GXS project coordinator to work directly with you. You will be asked to provide a summary of your requirements for translation maps and Web-based forms. You will also need to provide a list of the trading partners with whom you will be exchanging translated documents.

If you need to have data translated to or from an EDI format, you should have an EDI implementation guide that documents your EDI or application mapping requirements.

After reviewing your requirements, the project coordinator will provide you with initial estimates for the cost of developing translation maps and Web-based forms as well as a proposed schedule for development.

Once a contractual agreement is in place, the project coordinator will work directly with you to begin implementing in-network translation. You will determine the type of data translation required and define your trading partner relationships.

## Understanding your options

Before you can implement in-network translation, you need to decide which translation and service options your business requires. This information will be used to create the translation map.

To have your data translated to the format you need, to specify the level of intelligent processing you require, and to make your delivery choices, select from the following options:

- Data format options
- Processing options
- Delivery options

For your convenience, a checklist with all of these options is provided in Appendix D.

## Choosing data format options

In-network translation can translate data to and from the following formats:

- Application data
- EDI data
- Web-based forms

Implementation costs depend on the complexity of reformatting and processing your data.



**NOTE:** Before you choose a data format option, you need to have a trading partner agreement in place. This agreement specifies the data format requirements for exchanging electronic data with your trading partner.

Typically, the trading partner agreement is used to create an implementation guide. The implementation guide maps the fields in an application format to the required EDI segments. See page 106 for a sample implementation guide.

### Application data formats

In-network translation will accommodate your application data reformatting requirements by translating, as follows:

- From an application data format to an EDI data format or a Web data format
- From one application data format to another application data format
- From an EDI or a Web data format to an application data format

To ensure in-network translation performs as transparently as possible, you may want some customization options, depending on:

- How you want the data handled to capture the necessary data values in business application fields
- How the application normally stores data; for example, tab-delimited or comma-delimited
- If your data will be sent in a package with control records that indicate who the data is from, what type of data it is, and how it should be translated. See Appendix A, “Control record descriptions,” for more information.

### EDI data formats

In-network translation will accommodate your EDI requirements by translating as follows:

- *From* outbound EDI *to* an application or Web data format
- *From* inbound application or Web data *to* an EDI data format
- *From* inbound EDI data *to* an application data format
- *From* outbound or inbound EDI data *to* another EDI data format or version

In-network translation will translate data to and from the following EDI formats:

- ANSI X12
- ODETTE
- UN/EDIFACT
- UN/TDI

To have your data translated to or from an EDI data format, you must specify the following:

- EDI mapping requirements
  - EDI data format
  - EDI transaction set
  - EDI version
  - Number of segments
  - Direction of flow
  - Estimated number of trading partners
- EDI message format
- Application data format, if any, for either inbound or outbound flow or a copy of the EDI map you are now using.

### Web data formats

In-network translation will accommodate your Web data reformatting requirements by translating, as follows:

- *From* outbound EDI or application format *to* Web-based forms
- *From* inbound Web-based form data *to* an EDI or application data format

The Web data format is also considered to be an application data format.

### Forms exchange

If you want to make forms available on a GXS Web site for trading partners, you can sponsor Web-based forms. Your Web trading partners can access these forms once they register for forms exchange.

See “Using forms exchange” on page 19 for details.

## Choosing processing options

You can choose one or more of the following options for processing the data during translation:

- Checking for errors
- Packaging of application data
- Intelligent processing of application data
- Processing schedule
- Generating acknowledgments

### Checking for errors

In-network translation tests for two error conditions before it begins translation processing. You can choose to receive an e-mail note, as follows, to inform you if errors occur during these preprocessing tests:

- Whenever in-network translation receives invalid data, you can receive a *junkmail* note. For example, if in-network translation expects to receive an 810 or an INVOIC EDI transaction set but, instead, receives an 856 or a DESADV.

When this error occurs, in-network translation discards the invalid data into a junkmail note, but continues processing additional application data or EDI transaction sets.

- Whenever in-network translation receives the following, you can receive a *suspend* note:
  - Data for a trading partner who is not defined in your trading partner relationships
  - Data that is not defined in your translation map. For example, an EDI message using a non-supported transaction or version.

When this type of error occurs, in-network translation suspends processing of this data only, places the .DOC data that is not predefined into a suspend file, but continues processing additional application data or EDI transaction sets.

You are not billed for translation of any data that fails either of these preprocessing tests. Translation processing continues for the remaining data, unless another failure occurs.

Your application data also undergoes intelligent processing to detect file sequence disparities. See “Intelligent processing of application data” on page 31 for more information.

### Packaging of application data

In-network translation requires application data to contain specific control records before processing begins. You can choose to provide the control records, or have GXS provide them after receiving your application data.

The required control records enclose, or wrap, your outbound application data. A ***data package***, as used in this guide, refers to application data that is wrapped by these control records.



You can create the control records before sending the application data or have in-network translation insert the records before processing begins. There is a one-time charge during the implementation process if you decide to have the control records inserted for you.

The required control records are:

- **.FIL**  
This record provides enveloping and tracking controls by specifying the name of your application, the date and time your data was packaged, and a control number.
- **.DOC**  
This record indicates the beginning of a series of application records and specifies processing criteria, such as the intended recipient and the data format name of the following application records.
- **.TRL**  
This record provides balancing controls by checking the number of records in the data package and the overall completeness of the package.

See “Control records in data packages” on page 46 for more information.

### Intelligent processing of application data

In-network translation processes the control records to check for file sequence and missing data. You can choose (from three levels of compliance checking) the level that your data must satisfy before translation processing can start.

The three levels of compliance checking are:

- Verify that the application name specified in the .FIL record is valid. If the name is not valid, processing ends and you are notified with an e-mail note.
- Verify that the control number specified in the .FIL record is in the correct sequence and is not redundant. In-network translation expects your application to create each package in sequence. This check should prevent in-network translation from processing a data package more than once and may indicate that a data package was not received.
  - If the control number is not sequential from the last processed control number, you can choose one of the following:
    - Continue processing and notify with an e-mail note.
    - Suspend processing and notify with an e-mail note.

- If your application runs on more than one server, you should give each application instance a distinct application name. Then each application instance can manage its own control number sequencing.
- Compare the actual number of records processed with the number of records specified in the .TRL record.

If these values do not match, you can choose one of the following:

- Continue processing.
- Continue processing and notify with an e-mail note.
- Suspend processing and notify with an e-mail note.

### Processing schedule

When either inbound or outbound data to be translated arrives in your Information Exchange mailbox, it is immediately forwarded to in-network translation. Once your data is received, you can choose to have in-network translation process it immediately or process it on a scheduled basis.

Typically, customers have in-network translation process, translate, and deliver:

- Outbound data immediately.
- Inbound data on a scheduled basis, either hourly or daily.

By having your inbound data translated and delivered on schedule, the translated data can be sent to you in one data package or EDI envelope to keep transmission costs as low as possible. You can also tie the processing of your incoming business data to this schedule.

### Generating acknowledgments

You can virtually track the translation process from end to end by requesting that in-network translation generate acknowledgments at the following check-points:

- When your data is received by the network
- When your data is received by in-network translation
- When your data completes the preprocessing error testing
- When your data is successfully translated
- When your data is sent to your trading partner's mailbox

In-network translation sends the acknowledgments in a document translation process (DTP) record when processing is complete. You can also use the .QRY control record to query the status of translation processing of your application data. See “Translation status queries” on page 56 for more information.

## Choosing delivery options

You can choose the following options:

- Final output of your translated data
- Mailboxes for receiving data, reports, and e-mail notes

### Final output of your translated data

Your inbound translated data can be sent to you as follows:

- **As an application file or data package**

You can have your inbound application data delivered to you as one of the following: a data package with .FIL, .DOC, and .TRL control records, or as a single file containing application records.

- **As an EDI envelope**

When translating to EDI data, in-network translation creates an EDI envelope for delivering the translated data. If your trading partners must conform to the EDI format you are using, you should specify the EDI envelope to be used. Otherwise, if you are sending data to an EDI-enabled trading partner, you must use the EDI envelope your trading partner requires.

In-network translation creates one of the following types of EDI envelopes, depending on the EDI data format generated:

Extension	Description
BG	The translation extension used when producing a BG type document from an ANSI X12 type EDI document.
GS	The translation extension used when producing a GS type document from an ANSI X12 type EDI document.
ISA	The translation extension used when producing an ISA type document from an ANSI X12 type EDI document.
STX	The translation extension used when producing a UN/TDI type EDI document.

Extension	Description
UNB	The translation extension used when producing an ODETTE or UN/EDIFACT type EDI document.

See Appendix B, “EDI envelopes,” for more information about these envelopes and their associated records.

#### Mailboxes for receiving data, reports, and e-mail notes

In-network translation can send translated data to one of the following mailboxes:

- Information Exchange
- EDI Server
- EDI VAN Interconnect

In-network translation can send e-mail notes and translation reports to most e-mail systems or to various EDI Services components, such as:

- Lotus Notes
- Information Exchange
- EDI Server

You need to specify the e-mail address or mailbox where you want to receive translated data, notes, and translation reports.

**Activity reports:** You can receive electronic activity reports showing the translation activity for translating your inbound and outbound data. The information in these reports can be used for tracking and history purposes. You can choose to receive activity reports on a daily, weekly, or monthly schedule. See “Activity reports” on page 60 for more information.

**Run-time reports:** Whenever you send data to in-network translation, you can receive a run-time report for each data package, EDI transaction set, or application file processed. You can also customize the report. See “Run-time reports” on page 62 for more information.

## Obtaining data recovery assistance

Whenever you send your data through the network, GXS also stores a copy of it for 90 days. If your data is lost or corrupted, you can obtain a copy of this stored data, which is available in both pre-translated and post-translated formats.

You can also request custom data archive services when you set up in-network translation. For example, you could request that GXS store your data for more than 90 days.

## Setting up

Once the planning steps are complete, the GXS project coordinator will act as a project manager and be responsible for the following:

- Managing the development of translation maps, trading partner definitions, and, optionally, Web-based forms.
- Coordinating communications between you and the developers who are creating the translation map and forms.
- Providing status information and creating, maintaining, and distributing a project tracking document as the implementation work progresses.
- Arranging for testing between your system, the in-network translation service, and your trading partners.
- Confirming with you that setup and testing are complete.

## Creating translation maps

In-network translation uses maps to translate the data you exchange with your trading partners. The maps identify the application or EDI format, the recipient's mailbox address, and nicknames to identify both the sender and receiver of the data. The nicknames are specified in control records, which are described in Chapter 4. In-network translation uses this information to translate and deliver your inbound or outbound data.

More specifically, in-network translation requires the following:

- A translation map that defines the relationship between the format of the data you will send and the format your trading partner requires, or the format of the data your trading partner will send to you and the format you or your application requires.

For example, you could create one or more Web-based forms that allow your trading partners to communicate with your EDI application. In-network translation is used to translate data from the Web form format to your EDI format, and from your EDI format to the Web form format.

- Trading partner relationships that define the trading partners with whom you will exchange data via in-network translation.
- Routing information that determines how the data is to be delivered after in-network translation translates it.

## Defining trading partner relationships

You will provide the following:

- For application data, the Information Exchange address, e-mail address, and mailbox system for both you and your trading partner
- For EDI data, the sender and receiver qualifiers and user IDs

Before in-network translation can process and deliver translated data, your trading partners must be defined in the trading partner relationship database.

If you are sending or receiving EDI data, you will need to register your trading partner details with your EDI translation software.

## Processing and delivering translated data

You can specify alternate data translation and delivery when you send data in a data package or an EDI transaction. For example, you can indicate in an in-network translation control record that a transaction is a test transaction or a live transaction. You can specify that a test transaction be translated into a Web-based form and routed to the EDI Services Web server, or you can specify that a live, or production, transaction be translated into an EDI format and routed to an Information Exchange mailbox.

EDI formatted data is always delivered in an EDI envelope. Application data can be delivered either in a data package with control records or in an application file.

## Authorizing forms exchange trading partners

If you are sponsoring Web-based forms, you must identify the businesses who need access to those forms. A representative from each of those businesses must then call GXS and register for forms exchange. Once they are registered, GXS will define the trading partner relationship and create a mailbox so they can communicate with you.

## Testing

Once your trading partner relationships are defined and your translation maps are complete, testing may begin. Tests verify optimum connectivity between you and your trading partners and successful transmission of correctly translated documents.

## Testing connectivity

GXS will assist with testing between you and one trading partner to verify network connectivity from your application to your trading partner's mailbox. GXS will also monitor your data to ensure that it flows correctly through in-network translation.

## Testing translation and transmission

GXS will assist you with end-to-end translation and transmission testing to verify accurate, bidirectional translation, as defined in the translation requirements you submitted to GXS. During this testing, GXS will also be available to answer your questions, based on the translation and transmission results.

Once testing is complete and you are sending data through in-network translation, you can indicate in the in-network translation control records if this is a test transaction or a live transaction.

You can send transactions using the test indicator and, once testing is completed satisfactorily, start using the live indicator. This allows you to make modifications to the way in-network translation processes transactions in the test environment, while continuing to process transactions in the production environment.

## Monitoring transactions

GXS closely monitors the translation results to make sure of the following:

- The translation map is defined correctly and according to your specifications
- The data is delivered to the correct recipient
- The tracking data is placed into the tracking and history database

GXS may also make recommendations for improving the efficiency of processing and delivering your data.

## Operating and maintaining

When your translation maps are created, your trading partners are defined, and the connectivity and transmission tests are complete, both GXS and you share some responsibilities to ensure optimal setup, operation, and maintenance.



## Understanding GXS responsibilities

GXS is responsible for:

- Transferring business documents quickly and securely through the network
- Maintaining the privacy and confidentiality of business documents
- Translating data to the formats specified in your translation map
- Adding or changing formats or versions to your translation map, upon request
- Adding trading partners to your trading partner relationships, as needed
- Providing cost estimates in response to your request for additions or changes to your translation map

## Understanding your responsibilities

You are responsible for:

- Creating and maintaining an implementation guide that documents your EDI or application mapping requirements
- Notifying your trading partners that this translation service is available
- Requesting changes to your translation map when your translation requirements change
- Requesting additions or deletions to your trading partner relationships, as needed
- If you decide to sponsor Web-based forms, identifying forms exchange trading partners with in-network translation and defining them in your own EDI translation software

You will also need to provide your Web trading partners with instructions on how to use the Web-based forms.



## Sending and receiving data through in-network translation

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The data to be translated is generally sent through Information Exchange. The data is delivered to a mailbox that has been designated to handle your specific translation needs. Upon receipt, Information Exchange forwards the data immediately from that mailbox to in-network translation.

After in-network translation translates your outbound data, it delivers it to your trading partners. After translating your inbound data, in-network translation delivers it to your mailbox. Either you or your trading partner can be using one or more of the following:

- Information Exchange communications clients and access methods
- An EDI service provided by another VAN

The translation and delivery of data is based on predefined trading partner relationships that identify how the data should be reformatted, according to the sender, receiver, and transaction type.

This chapter describes how in-network translation performs the following:

- Processing and translating data from one format to another format, as defined in a translation map
- Delivering the translated data to you or your trading partners, as defined in the trading partner relationships

## Translation processing flows

In-network translation translates data as it flows into and out of your system, as follows:

- Outbound data is data you send to your trading partner
- Inbound data is data your trading partner sends to you

### Outbound processing flow

The following illustrates the outbound flow of data to be translated.

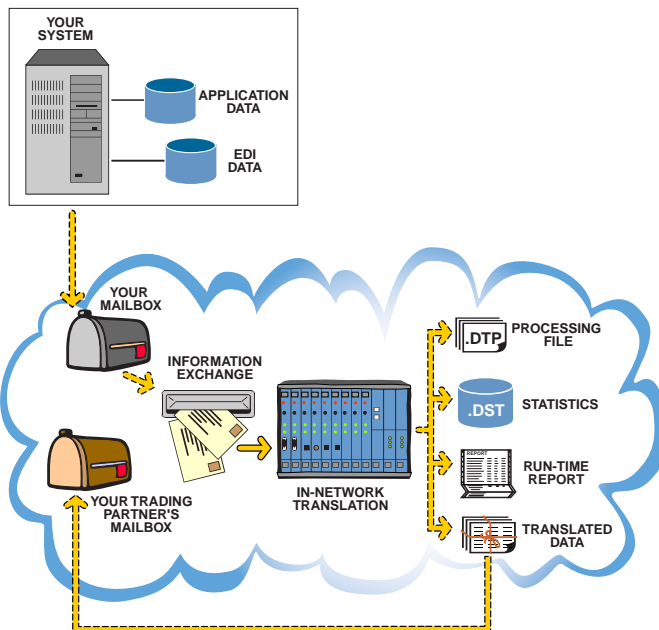


Figure 4. Outbound flow from your system to your trading partner's mailbox

The following procedures describe the typical processing sequence for outbound transactions:

1. You send your data to the Information Exchange mailbox designated to handle your specific outbound translation needs.
2. Information Exchange immediately forwards your data to in-network translation.
3. Upon receipt, in-network translation either immediately translates your data or holds it until processing is scheduled.

## Inbound processing flow

The following illustrates the inbound flow of data to be translated.

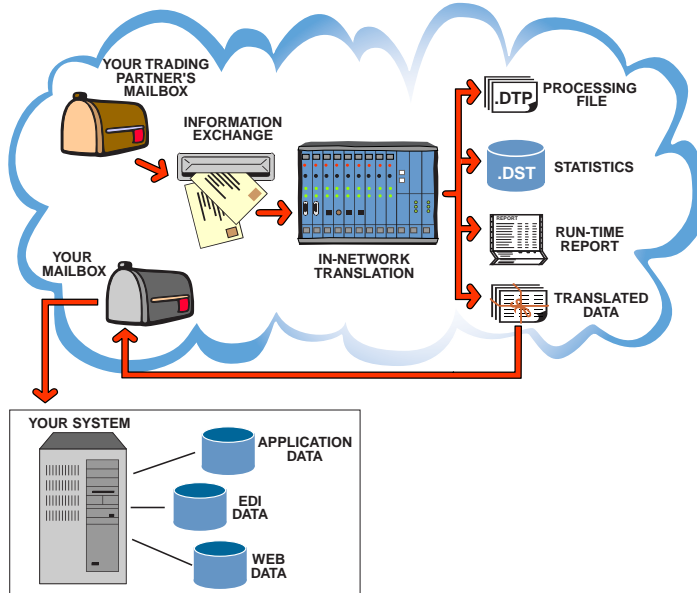


Figure 5. Inbound flow from your trading partner's system to your mailbox



**NOTE:** If you are using your own EDI translation software to translate some of the EDI documents you receive, but you are using in-network translation to translate other documents, you will need two distinct Information Exchange mailboxes into which to receive the EDI documents.

One mailbox, which corresponds to your existing EDI receiver ID, is for your own translation software; the other, which corresponds to the new EDI receiver ID for this business, is for in-network translation. You should inform your trading partners which of these mailboxes to send their EDI documents to.

The following procedures describe the processing sequence for inbound transactions:

1. Your trading partner sends data to the Information Exchange mailbox designated to handle your specific inbound translation needs.
2. Information Exchange immediately forwards the data to in-network translation.

3. Upon receipt, in-network translation either immediately translates the data or holds it until processing is scheduled.

## Translation processing options

In-network translation translates outbound and inbound data, as follows:

- From an application format to an EDI format
- From one application format to another application format
- From one EDI format to another EDI format
- From one EDI format to another version of the same EDI format
- From an EDI format to an application format
- From an EDI or application format to a Web-based form
- From a Web-based form to an EDI or application format

## Translating application data

Application data, including Web data, can be sent in files or data packages. A data package includes the following control records:

- .FIL
- .DOC
- .TRL

If application data is not sent in a data package, in-network translation creates and inserts the control records before translation processing begins. Information that you provide to GXS or include in your application records is used to populate the fields in these control records.

During processing, in-network translation creates additional records to track the processing activity of your data and detect any errors. These records are:

- .FAP
- .DTP
- .DST

### Control records in data packages

Before processing application data, in-network translation will either detect the following control records or create them:

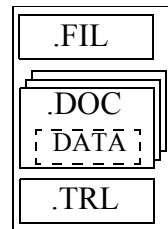
**.FIL:** The .FIL (FILE) record, or first record of the data package, provides enveloping and tracking controls. This record specifies the name of your application instance, the date and time the control records were created, and a file control number.

An application instance, or qualifier, defines an iteration or subset of the application. For example, GXS applications might use GXS as the name of the application and use the application instance to identify which type of data the application is for, such as purchase orders or invoices.

**.DOC:** The .DOC (DOCument) control record, or the header record, indicates the beginning of a document that was created as the result of the translation of a single EDI transaction set, or is to be used to create a single EDI transaction set. This record specifies the nicknames of the sender and recipient, the name of the data format that follows, and whether the document is a test or production document. It also contains a unique identifier for this particular document. Note that a data package may contain several .DOC records, each followed by the data for the transaction it is describing.

**.TRL:** The .TRL (TRaiLer) record, or the last record of the data package, provides balancing controls. This record specifies the total number of all records and a separate total of all dot (.) records in the package. It also repeats the sequence number from the .FIL record.

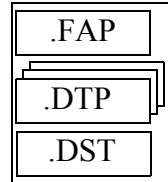
See “Control records for packaging data” on page 81 for more information about the fields used in each of these records.





### Control records created during translation processing

In-network translation creates the following control records to track translation processing and detect errors:



**.FAP (file acknowledgment process):** The first portion of the .FAP record repeats the information from the .FIL record. It then adds the date and time translation processing began, the actual record counts, and other information related to the entire package.

**.DTP (.DOC translation process):** A .DTP record is created for each .DOC record in the data package to identify specific information about each document. This record repeats the information in the .DOC record, indicates the mapping definition to be used during translation, the number of characters in the document, the number of documents in an envelope, and all the related EDI envelope information. This record is also used to track errors that occur during processing.

**.DST (.DTP status tracking):** A .DST record is created from each .DTP record at the end of the translation process. Each .DST record contains the history and current status of a single .DOC document. The .DST records for each package are stored in the .DST tracking and history database.

The .DST records are returned in response to queries for translation status. These queries (using the .QRY control record) are typically sent to in-network translation by the user who requested the translation. See “Translation status queries” on page 56 for more information.

### Processing application data

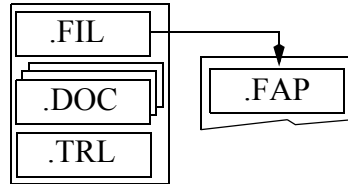
When in-network translation receives application data, it performs the following tasks before translating the data:

- Checks for the .FIL, .DOC, and .TRL control records and creates them if they are not found.
- Checks for file sequence irregularities during intelligent processing and does one of the following: ignores them, sends e-mail notes, or suspends processing.

An application format to an EDI format

In-network translation processes application data as follows:

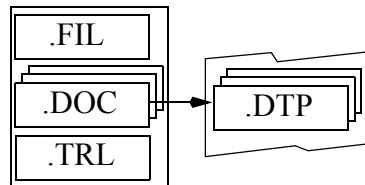
1. Creates an .FAP record to track the date and time translation processing begins for this package.
2. Passes each document in the package through a verification process to detect problems with either the format or content.



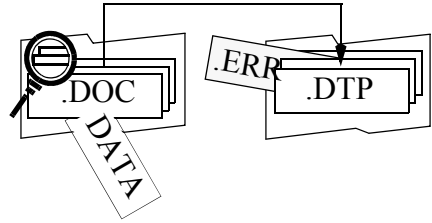
For example, if the data is coming from an ordering application, it must contain only ordering information. Any data identified as inappropriate for the application, which is specified in the .FIL record, is put into a junkmail file. A .DTP record is created for each .DOC put in the junkmail file.

3. Sends the junkmail file, if any, through a process to create an e-mail note, specifying what was expected as opposed to what was received, and sends the note to your mailbox or e-mail address.
4. Verifies that the .DOC names and the layout are set up in the trading partner relationship database. Any .DOC data that is not predefined in the database is put into a suspend file. A .DTP record is created for each .DOC put in the suspend file.
5. Sends the suspend file, if any, through a process to create an e-mail note, specifying which .DOC data was not predefined in the database, and sends the note to your mailbox or e-mail address.

6. Creates a .DTP control record for each .DOC record that successfully passes these first checks. The .DTP control record tracks the date and time translation begins and ends and the number of resulting EDI characters in each document. The .DTP record will also track the number of characters in the resulting EDI group and interchange, and the number of documents in that group and interchange.



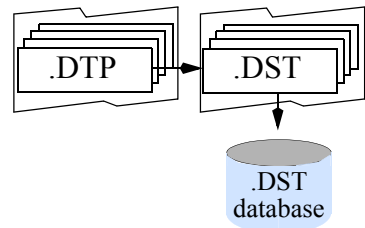
7. Checks the data in each .DOC document for problems with the format or content. If errors are detected, creates .ERR error records, inserts them after the appropriate .DTP record, and discards the data into a fallout file.



8. Passes all the data through an EDI translator, which translates it to the appropriate EDI format, as specified in the mapping definition. Only data that is valid and error-free is successfully processed into EDI.
9. Encloses the EDI data in the specified EDI envelope and uses the address specified in the EDI envelope, along with the predefined trading partner relationship, to determine where to send the EDI data.
10. The .DTP control records, the resulting EDI file, .ERR records, and reports from the EDI translator are input into a process that creates a customized translation report. As part of this process, the .DTP records are updated to contain all the final information and completion codes.

In-network translation can then package the .DTP records with an .FAP/.TRL record pair and send them to your mailbox.

11. If there was any fallout from the translation process, sends the .DTP records through a process to create an e-mail note, specifying the errors that were encountered, and sends the note to your mailbox or e-mail address.
12. Passes all the .DTP records through a process to create a document status tracking (.DST) record for each .DOC record. The .DST records are stored in the .DST tracking and history database. Activity reports are generated from the data stored in this database.



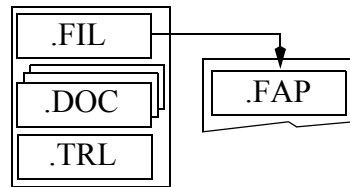
13. Sends the translation run-time report to your mailbox or e-mail address.

- On a daily, weekly, or monthly basis, creates and sends a summary translation activity report to your mailbox or e-mail address.

### One application format to another application format

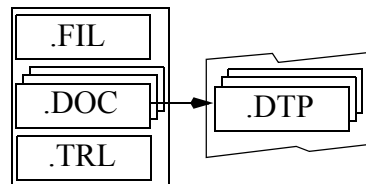
In-network translation processes application data as follows:

- Creates an .FAP record to track the date and time translation processing begins for this package.
- Passes each document in the package through a verification process to detect problems with either the format or content.

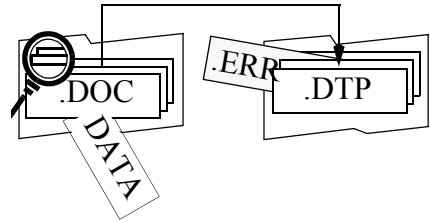


For example, if the data is coming from an ordering application, it must contain only ordering data. Any data identified as inappropriate for the application, which is specified in the .FIL record, is put into a junkmail file. A .DTP record is created for each .DOC put in the junkmail file.

- Sends the junkmail file, if any, through a process to create an e-mail note, specifying what was expected as opposed to what was received, and sends the note to your mailbox or e-mail address.
- Verifies that the .DOC names and the layout are set up in the trading partner relationship database. Any .DOC data that is not predefined in the database is put into a suspend file. A .DTP record is created for each .DOC put in the suspend file.
- Sends the suspend file, if any, through a process to create an e-mail note, specifying which .DOC data was not predefined in the database, and sends the note to your mailbox or e-mail address.
- Creates a .DTP control record for each .DOC record that successfully passes these first checks. The .DTP control record tracks the date and time translation begins and ends and the number of characters in each document.



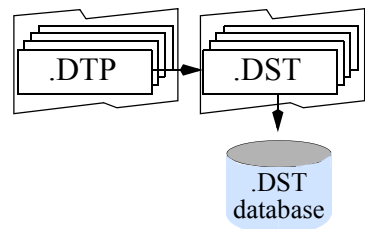
7. Checks the data in each .DOC document for problems with the format or content. If errors are detected, creates .ERR error records, inserts them after the appropriate .DTP record, and discards the data into a fallout file.



8. Passes all the application data through a process that translates it to the desired format, as specified in the mapping definition. Only application data that is valid and error-free is processed successfully. Data that failed in translation is put in the fallout file.
9. Optionally removes the .FIL, .DOC, and .TRL control records that wrap the resultant translated application data.
10. Sends the translated data to the address defined for the receiver nickname, which is specified in the .DOC control record.
11. Passes the .DTP control records, the resulting application data, and error records generated during translation processing into a process that creates a customized translation report. As part of this process, in-network translation updates the .DTP records to contain all the final information and completion codes.

In-network translation can then package the .DTP records with an .FAP/.TRL record pair and send them to your mailbox.

12. If there was any fallout from the translation process, sends the .DTP records through a process to create an e-mail note, specifying the errors that were encountered, and sends the note to your mailbox or e-mail address.
13. Passes each .DTP record through a process to create a document status tracking (.DST) record for each .DOC record. The .DST records are stored in the .DST tracking and history



database. Activity reports are generated from the data stored in this database.

14. Sends the translation run-time report to your mailbox or e-mail address.
15. On a daily, weekly, or monthly basis, creates and sends a summary translation activity report to your mailbox or e-mail address.

## Translating EDI data

When translating data from an EDI format, in-network translation uses information from within the EDI envelope to identify:

- The trading partner relationship that applies to the transaction
- The actions and translations to be performed on the data
- Where the translated data is to be delivered

### Control records in the process flow

In-network translation creates and maintains .DTP control records to determine the progress of the translation and, optionally, creates a .DOC record for each translated transaction.

**.DTP (.DOC translation process):** A .DTP control record identifies specific information about each EDI transaction set. This information includes the name of the application or application user that created the document, the nicknames of the sender and receiver, the mapping definition to be used during translation, the number of characters in the document, and the number of documents in an envelope. This record is also used to track errors that occur during processing.

**.DOC:** A .DOC control record, which is called a DOCument header record, indicates the beginning of a document that was created as the result of the translation of a single EDI transaction set. It specifies the nickname of the sender and recipient, the name of the data format that follows, and whether the document is a test or production document. It also contains a unique document identifier, as requested by the receiver.

This identifier may be a combination of some data fields from the translated document or a unique identifier provided by GXS. The default for this field is the set of control numbers from the associated EDI data.

### An EDI format to an application format

In-network translation processes EDI data as follows:

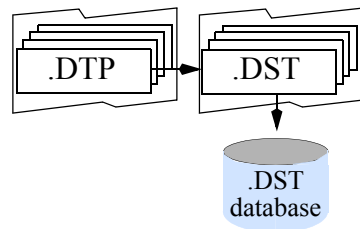
1. Passes each transaction set through an EDI verification process to detect problems with either the format or content. For example, if the EDI data is being directed to an invoice application, it must include only invoice data and no other type of EDI data. Any EDI data identified as inappropriate for the specified application is put in a junkmail file.
2. Sends the junkmail file, if any, through a process to create an e-mail note, specifying what was expected as opposed to what was received, and sends the note to your mailbox or e-mail address.
3. Verifies that the EDI IDs, the transaction set, and the version are set up in the trading partner relationship database. Any EDI data that is not predefined in the database is put in a suspend file.
4. Sends the suspend file, if any, through a process to create an e-mail note, specifying which EDI data was not predefined in the database, and sends the note to your mailbox or e-mail address.
5. Creates a .DTP control record for each transaction set that successfully completes these first steps. The .DTP control record tracks the date and time translation begins and all enveloping information about the EDI transaction. The .DTP record also tracks the number of characters in the transaction set and the envelope segments and the number of documents in the EDI envelope.
6. Passes all the EDI data through an EDI translator and additional processes, which translate it to the desired format. Only EDI data that is valid and error-free is processed successfully. Any EDI data that is rejected by the translator or by the GXS intelligent processing is placed in a fallout file.
7. For ANSI X12 messages, generates an EDI acknowledgment in the form of a 997 transaction, unless you specified not to for particular trading partners, and returns it to the original sender.
8. Sends all the data that was translated successfully to the mailbox designated to receive the translated data.



You can have in-network translation remove any of the .FIL, .DOC, and .TRL records, which it created, from the application file before it is forwarded to the recipient.

9. The .DTP control records, the original EDI file, and the 997s are input into a process that creates a customized translation report. As part of this process, the .DTP records are updated to contain all the final information and completion codes.
10. If there was any fallout from the translation process, sends the .DTP records through a process to create an e-mail note, specifying the errors that were encountered, and sends the note to your mailbox or e-mail address.

11. Sends the .DTP records through a process to create a document status tracking (.DST) record for each transaction set. The .DST records are stored in the .DST tracking and history database. Activity reports are generated from the data stored in this database.



12. Sends the translation run-time report to your mailbox or e-mail address.
13. On a daily, weekly, or monthly basis, creates and sends a summary translation activity report to your mailbox or e-mail address.

### One EDI format to another EDI format



In-network translation processes EDI data as follows:

1. Passes each transaction set through an EDI verification process to detect problems with either the format or content.

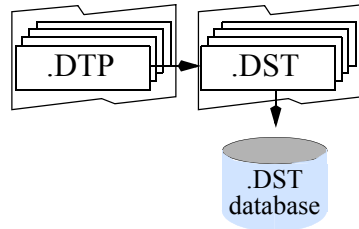
For example, if the EDI data is being directed to an invoice application, it must include only invoice data and no other type of EDI data. Any EDI data identified as inappropriate for the specified application is put into a junkmail file.





2. Sends the junkmail file, if any, through a process to create an e-mail note, specifying what was expected as opposed to what was received, and sends the note to your mailbox or e-mail address.
3. Verifies that the EDI IDs, the transaction set, and the version are set up in the trading partner relationship database. Any EDI data that is not predefined in the database is put in a suspend file.  
4. Sends the suspend file, if any, through a process to create an e-mail note, specifying which EDI data was not predefined in the database, and sends the note to your mailbox or e-mail address.
5. Creates a .DTP control record for each transaction set that successfully completes these first steps. The .DTP control record tracks the date and time translation begins and all enveloping information about the EDI transaction. The .DTP record also tracks the number of characters in the transaction set and the envelope segments and the number of documents in the EDI envelope.
6. Passes all the EDI data through a process that translates it to the appropriate new EDI format, segment by segment, as specified in the mapping definition. This process attempts to leave all envelope sequence numbers and date/time stamps intact. Any errors detected in the original EDI causes those transaction sets to be put into the fallout file.
7. The .DTP control records and the original EDI file are sent through a process that creates a customized translation run-time report. As part of this process, the .DTP records are updated to contain all the final information and completion codes.
8. If there was any fallout from the translation process, sends the .DTP records through a process to create an e-mail note, specifying the errors that were encountered, and sends the note to your mailbox or e-mail address.

9. Sends the .DTP records through a process to create a document status tracking (.DST) record for each transaction set. The .DST records are stored in the .DST tracking and history database. Activity reports are generated from the data stored in this database.



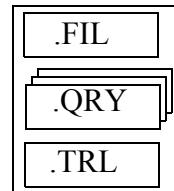
10. Sends the translation run-time report to your mailbox or e-mail address.
11. On a daily, weekly, or monthly basis, creates and sends a summary translation activity report to your mailbox or e-mail address.

## Translation status queries

In-network translation is designed to keep track of every document translated, whether outbound or inbound. This tracking is maintained in one of the document status tracking (DST) databases. A separate database exists for each application instance and consists of a collection of .DST records, one for each document that entered the translation process.

### Control record for querying translation status

You can use the .QRY control record to query the translation status of a data package, or application file. You can send a single .QRY record, or you can send multiple .QRY records as a batch file in a data package with .FIL and .TRL records. In-network translation responds to your query by sending you a .DST record for each .QRY record you submit.

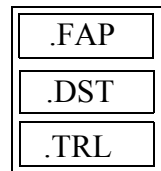


See “.QRY control record” on page 94 for more information about this control record.

## Querying translation status

The following describes a typical sequence for querying the status of a document:

1. A trading partner sends a query package. The package starts with an .FIL record, which indicates the .DST database to access, and ends with a .TRL record. The package may contain one or more .QRY records, and it may also contain one or more .DOC/data pairs.
2. In-network translation receives the data package and does the following:
  - a. Puts the .FIL, .QRY, and .TRL records into a separate file for processing. If any .DOC records are present, they are put into a separate file along with the .FIL and .TRL records and processed, as described in the previous sections.
  - b. Examines the .DST database and searches for a matching .DST record for each .QRY record. It may detect multiple matches if one of the following occurs:
    - The application sent duplicate .DOC records, whether or not the corresponding data is the same.
    - The application did not send duplicate records, but in-network translation caused a duplicate record during processing; such as, when reprocessing the suspend file after making corrections to the trading partner relationship database.
  - c. Returns .DST records for the .QRY records in a response file, which it sends in a package with .FAP and .TRL records to your mailbox.





## Receiving translation reports

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In-network translation creates two types of translation reports:

### ■ **An activity report**

This report identifies:

- The sender and receiver of each document processed
- The number of documents and characters processed
- The number and types of EDI transaction sets processed

The activity report can be sent to you on a daily, weekly, or monthly basis for a monthly fee.

### ■ **A run-time report**

This report includes the following sections:

- Report summary
- Data set summary
- General run-time information about the documents that were processed, including any errors that occurred. You can select how much information this section will contain by having GXS customize the report.

The run-time report is sent to you as soon as translation processing of the application file, data package, or transaction set is done.

Both of these reports are sent to the mailbox or e-mail address that you specified during implementation of in-network translation.

## Activity reports

The following is an example of an activity report. It shows the name of each trading partner who exchanged translated data and the number of characters and EDI messages sent and received during the month of November. It also lists the count, type, and version of each EDI transaction set processed.

TRANSACTION SET ACTIVITY FOR NOVEMBER 1999		PAGE 1	
USER	PARTNER		
-----	-----		
NATLEDI	NATIONAL BANK EDI - PRODUCTION		
	NX1234 TRADING PARTNER 1		
	SENT: # MESSAGES = 304 # CHARS = 0000346379		
	RECD: # MESSAGES = 123 # CHARS = 0000110385		
	SETS SENT		
	-----		
	VERSION	ID	COUNT
	-----	----	-----
	003010	850	401
	003010	860	19
	003010	997	80
	SETS RECD		
	-----		
	VERSION	ID	COUNT
	-----	----	-----
	003010	855	367
	003010	997	224
-----			

TRANSACTION SET ACTIVITY FOR NOVEMBER 1999 PAGE 2

USER PARTNER

-----

NATLEDI NATIONAL BANK EDI - PRODUCTION

NX2345 TRADING PARTNER 2

SENT: # MESSAGES = 33 # CHARS = 0000071619

RECD: # MESSAGES = 20 # CHARS = 0000005575

SETS SENT

-----

VERSION ID COUNT

-----

003010 850 38

003010 860 4

SETS RECD

-----

VERSION ID COUNT

-----

003010 997 43

TRANSACTION SET ACTIVITY FOR NOVEMBER 1999 PAGE 3

USER PARTNER

-----

NATLEDI NATIONAL BANK EDI - PRODUCTION

NX3456 TRADING PARTNER 3

SENT: # MESSAGES = 262 # CHARS = 0000861994

RECD: # MESSAGES = 268 # CHARS = 0000064671

SETS SENT

-----

VERSION ID COUNT

-----

003010 850 545

003010 860 151

SETS RECD

-----

VERSION ID COUNT

-----

003010 997 285

## Run-time reports

You can receive a run-time report whenever translation processing for an application file, data package, or transaction set is done. Each report contains a report summary and a data set summary in addition to the general section of the report.

The report summary lists the number of data sets received for processing. The data set summary lists the date and time in-network translation received the data sets. Both summary sections contain transaction counts, such as the number of documents received, translated, and delivered, for all data processed.

The general section of the report identifies the sender, receiver, and the date and time processing began. It also lists the documents or EDI segments that were processed. You can choose how much information, if any, is provided about these documents or EDI segments by having GXS customize the report for you.

## Customizing the report

We can customize the sequence and amount of information in the general section of the report by using the TYPE, TITLE, and SORT parameters.

### TYPE parameters

You can request one of the following options to specify how much information about the documents or EDI segments will be included in the report.

#### FULL

This report provides run-time information for all documents processed, including any documents that failed the two preprocessing tests. It also includes error codes, if any, for application data processed and EDI header information for the EDI documents processed. It also provides all of the EDI segments.

#### SUMMARY

This option provides the same information as the full report, except for the EDI segments. Instead of all EDI segments for all the transaction sets, it provides run-time information for all documents that passed the two preprocessing tests and all the .DOC control records that failed the preprocessing tests. It includes EDI segments only for those transaction sets with translation errors, along with the error indicators.



### CONDENSED\_SUMMARY

This option provides the same information as the full and summary reports, except for the EDI segments. Instead of providing all EDI segments for transaction sets with errors, it includes only a portion of the EDI transaction set: the ST, the first segment after the ST, and each of the segments with errors, along with the error indicators.

### ERROR

This report provides run-time information and identifies the sender and receiver for all documents that failed the two preprocessing tests, or that failed in translation. It also includes the entire EDI transaction set, from the ST segment through the SE segment, for any EDI data that failed during translation processing. It also includes the error indicators.

### CONDENSED\_ERROR

This version of the error report provides run-time information and identifies the sender and receiver for all documents that failed the two preprocessing tests. It also includes only a portion of the EDI transaction set: the ST, the first segment after the ST, and each of the segments with errors, along with the error indicators, for any EDI data that failed during translation processing.

### NODETAIL

This report provides run-time information and transaction counts for all data processed, but it does not list any documents or EDI segments.

### [TITLE parameter](#)

You can request up to 5 title lines to display at the top of each page of the report. The report will center each line in the title.

By default, the date, time, report title, and page number will always display on the first and second title lines.

### [SORT parameter](#)

You can request up to 5 sort options from the following list to specify the order of the EDI documents in the report.

By default, the documents are arranged in the sequence received.

SENDER_DOC_NAME	JOBNAME
RECEIVER_DOC_NAME	ABSOLUTE_TIME
LAYOUT	RUNTIME
STATUS	ENVELOPE_RECEIVER_ID
DOC_TAG	ENVELOPE_SENDER_ID
MAPNAME	GROUP_RECEIVER_ID
PROCESS	GROUP_SENDER_ID
ACCOUNT	TRANSACTION_SET
INBOUND_OUTBOUND	VERSION
SEQUENCE_NUMBER	GROUP_TYPE
EDI_TYPE	JOB_NUMBER
COMMON_CHARGE_ID	DSNAME

### [Example run-time reports](#)

This section includes examples of the different versions of run-time translation reports that you can choose to receive:

- "Full Report (Page 1 of 3)," on page 65
- Figure 7, "Summary Report (Page 1 of 2)," on page 68
- Figure 8, "Condensed Error Report (Page 1 of 2)," on page 70
- Figure 9, "No-detail Report," on page 72

The following example shows the first three pages of a full report.

```

102/05/1999          Inbound Transaction Report          Full Report
018:02:38           GS Enveloped Test Data              Page 1
Documents have been sorted by the following data elements:
SEQUENCE_NUMBER.

Report Summary: Document counts for 1 datasets
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                    with other errors: 00000000
                    sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                    sent to application: 00000002
-----
Dataset Summary: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                    with other errors: 00000000
                    sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                    sent to application: 00000002
-----
Receiver Route Code: NRT51                      Company Name: COMPANY A
Sender Route Code:   TP3020                     Company Name:
Control Numbers:    ISA(          ) GS(764      ) ST(000007216)
Doc Tag:            000000000000000764000007216
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
GS*SH*6111259320*6111250051*980415*2328*764*X*003020A
ST*856*000007216A
BSN*00*980415220137*980415*2326*0001A
HL*1**SA
TD1**4****G*24*LBA
TD5**2*COMPANYB
REF*BM*44651A
DTM*011*980415A
N1*ST**92*8774A
N1*Sf*COMPANYC
HL*2*1*OA
PRF*275809***980318A
TD1**4****24*LBA
REF*IA*000258384A
REF*DP*641A
N1*BY**92*8774A
HL*3*2*PA
MAN*GM*00007229770005986709A
HL*4*3*IA
LIN**CB*XXXXX*IZ*005*UP*630994163858*VA*MC314502*VE*50*SZ*   LA
SN1**32*EAA
HL*5*2*PA
MAN*GM*00007229770005986754A
HL*6*5*IA
LIN**CB*29087*IZ*003*UP*630994163865*VA*MC314502*VE*50*SZ*   MA
SN1**16*EAA
HL*7*2*PA
MAN*GM*00007229770005986815A
HL*8*7*IA
LIN**CB*29087*IZ*006*UP*630994163889*VA*MC314502*VE*50*SZ*   XLA

```

Figure 6. Full Report (Page 1 of 3)

```

102/05/1999          Inbound Transaction Report          Full Report
018:02:38           GS Enveloped Test Data                      Page 2
  SN1**32*EAA
  HL*9*2*PA
  MAN*GM*00007229770005986860A
  HL*10*9*IA
  LIN**CB*29087*IZ*007*UP*630994163896*VA*MC314502*VE*50*SZ*   XXLA
  SN1**16*EAA
  CTT*10A
  SE*37*000007216A
  GE*1*764A
-----
Receiver Route Code: NRT51                      Company Name: COMPANY A
Sender Route Code:   TP3020                    Company Name:
Control Numbers:    ISA(          ) GS(21      ) ST(0035   )
Doc Tag:            000000000000000021000000035
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
GS*SH*6111259320*6111250051*980415*2125*21*X*003020A
ST*856*0035A
BSN*00*0414982*980415*2008A
HL*1**SA
TD1**18****G*42900*LBA
TD5**2*ABCD
REF*BM*10300028205A
DTM*011*980415A
N1*ST**92*8860A
N1*SF*COMPANYD
HL*2*1*OA
PRF*955836***980406A
TD1**18*****42900*LBA
REF*IA*112980255A
REF*DP*671A
N1*BY**92*8860A
HL*3*2*IA
LIN*1*CB*XXXXXA
SN1**840*EAA
HL*4*2*IA
LIN*2*CB*81236A
SN1**120*EAA
HL*5*2*IA
LIN*3*CB*81237A
SN1**150*EAA
CTT*5A
SE*26*0035A
GE*1*21A
-----
Receiver Route Code: NRT51                      Company Name: COMPANY A
Sender Route Code:   TP3020                    Company Name:
Control Numbers:    ISA(          ) GS(764      ) ST(00007216)
Doc Tag:            000000000000000764000007216
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
GS*SH*6111259320*6111250051*980415*2328*764*X*003020A
ST*856*000007216A
BSN*00*980415220137*980415*2326*0001A
HL*1**SA

```

Figure 6. Full Report (Page 2 of 3)

```

102/05/1999          Inbound Transaction Report          Full Report
018:02:38           GS Enveloped Test Data                    Page 3
  TD1**4***G*24*LBA
  TD5**2*UPSS UPS COLLECTA
  REF*BM*@4651A
  DTM*011*981315A
  #####
--> Segment DTM has data element errors: invalid character in data element 2
  N1*ST**92*8774A
  N1*Sf*COMPANYB
  HL*2*1*OA
  PRF*275809***980318A
  TD1**4***$4*LBA
  ##
--> Segment TD1 has data element errors: invalid character in data element 7
  REF*IA*000258384A
  REF*DP*641A
  N1*BY**92*8774A
  HL*3*2*PA
  MAN*GM*was_a_number05986709A
  HL*4*3*IA
  LIN**CB*XXXXX*IZ*005*UP*630994163858*VA*MC314502*VE*50*SZ*   LA
  SN1**32*EAA
  HL*5*2*PA
  MAN*GM*00007229770005986754A
  HL*6*5*IA
  LIN**CB*29087*IZ*ABC*UP*630994163865*VA*MC314502*VE*50*SZ*   MA
  SN1**16*EAA
  HL*7*2*PA
  MAN*GM*00007*2977000*986815A
  #####
--> Segment MAN has data element errors: too many data elements
  HL*8*7*IA
  LIN**CB*29087*IZ*006*UP*630994163889*VA*MC314502*VE*50*SZ*   XLA
  SN1**32*EAA
  HL*9*2*PA
  MAN*GM*00007229770005986860A
  HL*10*9*IA
  LIN**CB*29087*IZ*007*UP*630994163896*VA*MC314502*VE*50*SZ*  XXLA
  SN1**16*EAA
  CTT*10A
  SE*37*000007216A
  GE*1*764A
-----
Receiver Route Code: NRT51                               Company Name: COMPANY A
Sender Route Code:   TP3020                               Company Name:
Control Numbers:     ISA(           ) GS(21           ) ST(0035           )
Doc Tag:              0000000000000000210000000035
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
  GS*SH*6111259320*6111250051*980415*2125*21*X*003020A
  ST*856*0035A
  BSN*00*0414982*980415*2008A
  HL*1**SA
  TD1**18***G*42900*LBA
  TD5**2*ABCD A

```

Figure 6. Full Report (Page 3 of 3)

The following example shows the first two pages of a summary report.

```

102/05/1999          Inbound Transaction Report          Summary Report
017:59:18           GS Enveloped Test Data             Page 1
Documents have been sorted by the following data elements:
SEQUENCE NUMBER.

Report Summary: Document counts for 1 datasets
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                    with other errors: 00000000
                    sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                    sent to application: 00000002
-----
Dataset Summary: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                    with other errors: 00000000
                    sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                    sent to application: 00000002
-----
Receiver Route Code: NRT51          Company Name: COMPANY A
Sender Route Code:   TP3020        Company Name:
Control Numbers:    ISA(           ) GS(764           ) ST(000007216)
Doc Tag:            00000000000000000764000007216
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
-----
Receiver Route Code: NRT51          Company Name: COMPANY A
Sender Route Code:   TP3020        Company Name:
Control Numbers:    ISA(           ) GS(21            ) ST(0035           )
Doc Tag:            0000000000000000021000000035
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
-----
Receiver Route Code: NRT51          Company Name: COMPANY A
Sender Route Code:   TP3020        Company Name:
Control Numbers:    ISA(           ) GS(764           ) ST(000007216)
Doc Tag:            00000000000000000764000007216
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
GS*SH*6111259320*6111250051*980415*2328*764*X*003020A
ST*856*000007216A
BSN*00*980415220137*980415*2326*0001A
HL*1**SA
TD1**4****G*24*LBA
TD5**2*COMPANYC
REF*BM*84651A
DTM*011*981315A
#####
--> Segment DTM has data element errors: invalid character in data element 2
N1*ST**92*8774A
N1*SF*COMPANYB
HL*2*1*OA
PRF*275809***980318A
TD1**4****$4*LBA
##
--> Segment TD1 has data element errors: invalid character in data element 7

```

Figure 7. Summary Report (Page 1 of 2)

```

102/05/1999          Inbound Transaction Report          Summary Report
017:59:18            GS Enveloped Test Data                    Page 2
REF*IA*000258384A
REF*DP*641A
N1*BY**92*8774A
HL*3*2*PA
MAN*GM*was_a_number05986709A
HL*4*3*IA
LIN**CB*XXXXX*IZ*005*UP*630994163858*VA*MC314502*VE*50*SZ*   LA
SN1**32*EAA
HL*5*2*PA
MAN*GM*00007229770005986754A
HL*6*5*IA
LIN**CB*29087*IZ*ABC*UP*630994163865*VA*MC314502*VE*50*SZ*   MA
SN1**16*EAA
HL*7*2*PA
MAN*GM*00007*2977000*986815A
#####
--> Segment MAN has data element errors: too many data elements
HL*8*7*IA
LIN**CB*29087*IZ*006*UP*630994163889*VA*MC314502*VE*50*SZ*   XLA
SN1**32*EAA
HL*9*2*PA
MAN*GM*00007229770005986860A
HL*10*9*IA
LIN**CB*29087*IZ*007*UP*630994163896*VA*MC314502*VE*50*SZ*  XXLA
SN1**16*EAA
CTT*10A
SE*37*000007216A
GE*1*764A
-----
Receiver Route Code: NRT51                      Company Name: COMPANY A
Sender Route Code:   TP3020                      Company Name:
Control Numbers:    ISA(          ) GS(21        ) ST(0035      )
Doc Tag:            000000000000000021000000035
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
GS*SH*6111259320*6111250051*980415*2125*21*X*003020A
ST*856*0035A
BSN*00*0414982*980415*2008A
HL*1**SA
TD1**18****G*42900*LBA
TD5**2*ABCD
REF*BM*10300028205A
DTM*011*980415A
N1*ST**92*8860A
N1*SF*MI*HI*AN*PEA**CO**ANYA
#####
--> Segment N1 has data element errors: too many data elements
#####
--> Segment N1 has data element errors: invalid code value in element 3
HL*2*1*OA
PRF*955836***980406A
TD1**18****42X00*PKA
#####
--> Segment TD1 has data element errors: invalid character in data element 7

```

Figure 7. Summary Report (Page 2 of 2)

The following example shows the condensed version of an error report.

```

102/05/1999      Inbound Transaction Report      Condensed Error Report
018:03:33       GS Enveloped Test Data                    Page 1
Documents have been sorted by the following data elements:
SEQUENCE_NUMBER.

Report Summary: Document counts for 1 datasets
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                       with other errors: 00000000
                       sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                       sent to application: 00000002
-----
Dataset Summary: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
  Extraction Phase:          extracted: 00000004
  Translation Phase: with translator errors: 00000002
                       with other errors: 00000000
                       sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                       sent to application: 00000002
-----
Receiver Route Code: NRT51                      Company Name: COMPANY A
Sender Route Code:   TP3020                     Company Name:
Control Numbers:    ISA(          ) GS(764      ) ST(000007216)
Doc Tag:            00000000000000000764000007216
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
  ST*856*000007216A
  BSN*00*980415220137*980415*2326*0001A
  DTM*011*981315A
  #####
--> Segment DTM has data element errors: invalid character in data element 2
  TD1**4*****$4*LBA
  ##
--> Segment TD1 has data element errors: invalid character in data element 7
  MAN*GM*00007*2977000*986815A
  #####
--> Segment MAN has data element errors: too many data elements

```

Figure 8. Condensed Error Report (Page 1 of 2)



```

-----
Receiver Route Code: NRT51                               Company Name: COMPANY A
Sender Route Code:   TP3020                               Company Name:
Control Numbers:    ISA(          ) GS(21          ) ST(0035          )
Doc Tag:            00000000000000000210000000035
Date/Time Run: 02/05/1999 17:24:48 JBK(21505) JBK.NRSITS2.SPLTU.EDI856.X0149V00
** Error ** (004-001): Translator error(s)
   ST*856*0035A
   BSN*00*0414982*980415*2008A
   N1*SF*MI*HI*AN*PEA**CO**ANYA
      ##
--> Segment N1 has data element errors: too many data elements
      ##
--> Segment N1 has data element errors: invalid code value in element 3
   TD1**18*****42X00*PKA
      #####
--> Segment TD1 has data element errors: invalid character in data element 7

```

Figure 8. Condensed Error Report (Page 2 of 2)

The following example shows a report with no details.

```
111/04/1999      Inbound Transaction Report      No-detail Report
014:55:19       Cosmetics (Transaction Set 856)    Page 1
Documents have been sorted by the following data elements:
  VERSION and DOC_TAG.
Report Summary: Document counts for 3 datasets
  Extraction Phase:          extracted: 00000005
  Translation Phase: with translator errors: 00000001
                        with other errors: 00000000
                        sent to post-processing: 00000004
  Post-processing Phase:    with errors: 00000001
                        sent to application: 00000003
-----
Dataset Summary: 10/30/1999 14:34:09 JBK(16742) JBK.CSM.NODUP.Z0083V00
  Extraction Phase:          extracted: 00000001
  Translation Phase: with translator errors: 00000001
                        with other errors: 00000000
                        sent to post-processing: 00000000
  Post-processing Phase:    with errors: 00000000
                        sent to application: 00000000
-----
Dataset Summary: 10/30/1999 14:13:26 JBK(16322) JBK.CSM.NODUP.Z0085V00
  Extraction Phase:          extracted: 00000002
  Translation Phase: with translator errors: 00000000
                        with other errors: 00000000
                        sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000000
                        sent to application: 00000002
-----
Dataset Summary: 10/30/1999 17:09:04 JBK(19539) JBK.CSM.NODUP.Z0088V00
  Extraction Phase:          extracted: 00000002
  Translation Phase: with translator errors: 00000000
                        with other errors: 00000000
                        sent to post-processing: 00000002
  Post-processing Phase:    with errors: 00000001
                        sent to application: 00000001
```

Figure 9. No-detail Report

## Handling translation errors

---

If errors occur during translation, you will receive notification of each error in an e-mail note. Most errors fall into one of the following categories:

- Package processing errors
- .DOC control record processing errors

### Package processing errors

The following list shows possible file sequence and content errors that may occur during intelligent processing of your application data:

- If the .FIL or .TRL records are not complete, in-network translation sends the error details in an e-mail note and suspends processing. In-network translation will not translate incomplete files.
- The application name in the .FIL record is incorrect. An error e-mail is generated and sent, and processing is suspended.
- The control numbers in the .FIL and .TRL records do not match. This could suspend processing or generate an e-mail note, or both.
- The control number in the .FIL record is not received in the correct sequence. This could suspend processing or generate an e-mail note, or both.
- The actual record count detected in the package does not match the record count in the .TRL record. This could suspend processing or generate an e-mail note, or both.

## .DOC processing errors

When you send documents to in-network translation for processing, the following errors and resulting actions may occur:

- For each application instance, there is a list of application nicknames that are valid. These nicknames for either the sender or receiver, depending on the application, are names owned locally by the application instance. With each of these names, there is a list of application layout names that are valid.

If in-network translation encounters a .DOC record in which the appropriate nickname is not in this list, or where the layout is not a valid match with the sender or receiver nickname, this document will be rejected. The .FIL, .DOC/data group and .TRL records are copied to the junkmail file, and the related .DTP records are flagged with the appropriate error code.

In-network translation creates an e-mail note describing each junkmail document. The e-mail note is sent to the mailbox or e-mail address you specify.

- If a .DOC record does not match an entry in the trading partner relationship database, the .DOC, .FIL, and .TRL records are copied to a suspend file, and the related .DTP records are flagged with the appropriate error code.

The suspend file contains all the .DOC/data groups for .DOC records not matching an entry in the trading partner database. It also contains the original .FIL and .TRL records.

In-network translation creates an e-mail note describing each trading relationship that failed the database match. The e-mail note is sent to the mailbox or e-mail address you specify.

If the problem is in your data, you can correct it and resubmit it. If the error was caused by a GXS setup problem, GXS will make the necessary corrections to the database. Once this is done, the junkmail or suspend file can be processed again. If no further errors are detected, the file can be successfully translated without resubmitting the file. Each reprocessing will produce a separate run-time report.

- If in-network translation finds problems with either the data format or content, it creates error records in a fallout file. An e-mail note detailing the error conditions is sent to the mailbox or e-mail address you specify. Such errors can only be corrected by having the application resend the data with the appropriate corrections.

In-network translation merges error records into the .DTP control file by placing each error record with the appropriate .DTP record and updating the .DTP record with the corresponding error code.

## Error codes

In-network translation generates the following error codes during translation processing and sends them in an e-mail note to the address you specify. In all cases, except where noted, these errors will suspend translation processing for the current document only. Translation processing will continue for subsequent documents.

### Document level error messages

In-network translation returns the following document level error messages when errors occur during translation processing:

---

**\*\* Error \*\* (003-001): Transaction set not expected in this job**

Explanation: A transaction set was encountered that was not expected (based on jobstream parameters).

---

**\*\* Error \*\* (004-001): Translator error(s)**

Explanation: A segment or data element message usually displays after the segment containing the error. See “EDI segment errors” on page 76.

---

**\*\* Error \*\* (005-001): Map name does not match one on trading partner relationship**

Explanation: The map name used by the translator was not consistent with the defined trading partner relationships.

---

**\*\* Error \*\* (006-001): File name not defined in jobstream**

Explanation: The jobstream was not set up properly, or unexpected data was encountered due to defined trading partner relationships.

---

**\*\* Error \*\* (9999): Post processing or unknown error**

Explanation: When matching the EDI data with the data that was successfully translated, in-network translation found a transaction set that it could not match, nor determine why it failed.

## EDI segment errors

In-network translation returns the following error messages when errors occur during translation processing of EDI segments:

---

Loop occurs too many times

Explanation: The document contains more loops than allowed by the transaction set standard.

---

Mandatory segment xxx is missing

Explanation: A required segment, as defined by the translation set standard, is missing.

---

Segment xxx exceeds maximum use

Explanation: The segment occurred more times in the data than allowed by the transaction set standard.

---

Segment xxx has an unknown error!

Explanation: The document contains this segment, which has caused an unknown error.

---

Segment xxx is not defined for the transaction set

Explanation: The document contains a segment that is not part of the transaction set being processed.

---

Segment xxx is not in the proper sequence

Explanation: The document contains a segment that is out of sequence as defined by the translation set standard.

---

Segment xxx is unexpected

Explanation: The document contains a segment that is not part of the translation set being processed, or the segment is out of sequence as defined by the translation set standard.

---

Segment xxx is unrecognized

Explanation: The document contains an unknown segment ID or a segment ID that is not defined by the transaction set standard.

## EDI data element errors

In-network translation returns the following error messages when errors occur during translation processing of EDI data elements:

---

Conditional, required data element 9 is missing too many data elements

Explanation: The document is missing a conditional, required element, as defined by the translation set standard, or the number of elements exceeds the number allowed in the translation set standard.

---

Data element 9 is too long

Explanation: The element contains data that is too long, as defined by the translation set standard.

---

Data element 9 is too short

Explanation: The element contains data that is too short, as defined by the translation set standard.

---

Exclusion condition violated, element 9

Explanation: The data element should have been excluded, based on the same or other conditional segments or elements as defined by the transaction set standard.

---

Invalid character in data element 9

Explanation: The element contains data of a type not defined by the translation set standard.

---

Invalid code value in element 9

Explanation: The element contains a data code that is not defined by the standards.

---

Invalid date in element 9

Explanation: The element contains data that may not be a date or is not formatted as a date, as defined by the transaction set standard.

---

Invalid time in element 9

Explanation: The element contains data that may not be the time or is not formatted as the time, as defined by the transaction set standard.

---

Segment xxx has data element errors; mandatory data element 9 is missing

Explanation: This segment in the document is missing a mandatory element, as defined by the translation set standard.

---

Unknown error for element 9

Explanation: The data element contains an unknown error, based on the transaction set standard.



## Example error e-mail note

You will receive an e-mail note whenever errors occur during translation processing. The note will include the name of the document or package, the name of the job, a description of the error, and the control records in error.

Optionally, you can receive e-mail notes that describe compliancy errors that may occur during translation processing of application data.

The following is an example of an e-mail note that notifies you of errors during translation processing.

```

From: MAILMAN -- SHQA      Date and time    99/11/18 15:24:12
   Date:    99/11/18
   From:    IBM KMTOT1 - DCRB
   To:      EDITRAN -
   Subject: WEB PURCHASE ORDER ERROR DETECTED

-----
***** EDI FORMS Splitter Exception Notification
*****

For Application - IBM.PURORDERS
with.FIL date = 19981118
   time = 143242
control number = 000000109
Unable to find relationship for =====>
   Sender = SENDER1_WEBPO   Receiver = Account1_IE
   Layout = POrder         Status = P
Unable to find relationship for =====>
   Sender = SENDER2_WEBPO   Receiver = Account1_IE
   Layout = POrder         Status = P
*** End of Distributed Note ***

-----
Distribution Request Information (Originating)
   Created On:
   Date:      99/11/18
   Time:     15:21:49:026

```



## Control record descriptions

---

**In-network translation** uses several control records to envelope your data and track processing during translation. These records also provide a standard application interface into and out of **in-network translation**.

### Control records for packaging data

The control records that provide enveloping and balancing controls for your data are the following:

- .FIL
- .DOC
- .TRL

Each of these control records begins with an .xxx record identifier and the record version. By using a version field, **in-network translation** can support different layouts of control records to accommodate all of your data translation requirements. In other words, the use of the layout version number allows GXS to modify the format of the records, such as adding new fields, without requiring you to change an application that uses an earlier format.

The only record layouts shown in this book are the version 0 layouts. However, **in-network translation** is already using later versions internally. You will be supplied with the latest version used when you sign up for this service.

## .FIL control record

The .FIL control record is the first record of a package. It provides enveloping and tracking controls for the package. In most cases, this package represents a file or a transmission of documents.

A detailed description of the contents of the .FIL control record follows.

### .FIL control record layout:

Name	Description
Record_id	'FIL' The file header record.
Record_version	The version of the .FIL record. This value can range from 0 to 9.

### Version 0 layout:

Name	Type	Size	Description
Application	Char	17	The two registered IDs of the .FIL record.
Date	Char	8	The date the .FIL record and its contents were created by the sending application.
Time	Char	6	The time the .FIL record and its contents were created by the sending application.
Control Number	Char	9	The control number for the package.

### .FIL control record fields

This section describes the .FIL control record fields.

#### Application

The first field is the name space or database where your trading partners are defined. The second field is the application instance or application name that defines an iteration or subset of a particular application. This field should be in the form:

```
application_name.application_instance.
```

For example, the application field might be represented as GXS . PURORDRS, where GXS is the name of your company and PURORDRS is the subsystem generating all the purchase orders.

As another example, the application field might be represented as ORDERS . SERV4, where ORDERS is the name of a purchase order application that causes a number of servers to create and send data packages. SERV4 is a unique name that identifies the server sending the application data.



**NOTE:** You and GXS mutually select the names to be used when you order the **in-network translation** service.

### Date

This field records the date the .FIL record and its contents were created by the sending application. This field can be used to track the package. It should be in the form of CCYYMMDD, where CC is the century (19 or 20), YY are the last two characters of the year (00-99), MM is the month (1-12), and DD is the day of the month (1-31). For example, November 10, 1999 would be 19991110.

### Time

This field records the time the .FIL record and its contents were created by the sending application. This field can be used to track the package. It should be in the form of HHMMSS, where HH is the hour (0-23), MM is the minute (00-59), and SS is the second (00-59). Both the date and time are recorded in the application instance's local time.

### Control number

This field is used for tracking the package through the translation process and for intelligent processing of your application data. In addition, the value in this field must match the control number in the .TRL record for this package.

**In-network translation** expects all incoming data to be sent in sequence. This field must be unique for a period of time within your application to provide sufficient tracking information and allow for intelligent processing of your data. For example, **in-network translation** uses this field to prevent a data package from being processed more than once or as an indicator that a data package may not have been received.

## .DOC control record

The .DOC control record is a header record that indicates the beginning of a series of application records. The document header introduces a new document or transaction set with the information necessary to translate, route, and track the document to be processed.

Each data package must have at least one .DOC record, but a single package can have many .DOC records. The .DOC record contents are unique within the application\_name specified with the .FIL record. If the .DOC is being returned to the application, it supplies the data necessary for the application to understand the data being delivered.

If the data is outbound from your application, these records are to be translated into an EDI format or another application data format, as specified in the translation map. If the data is inbound to your application, these records are the result of translation from an EDI transaction set or another application data format.

A detailed description of the contents of the .DOC control record follows.

**.DOC control record layout:**

Name	Type	Size	Description
Record_id	Char	4	‘.DOC’ The record identifier.
Record_version	Char	1	The version of the .DOC record. This value can range from 0 to 9.

**Version 0 layout:**

Name	Type	Size	Description
Sender_name	Char	24	For outbound documents, the nickname of the application user that created this document. For inbound documents, the nickname of your trading partner.
Receiver_name	Char	24	For outbound documents, the nickname of your trading partner. For inbound documents, the nickname of the application user.
Layout	Char	8	The structure of the data records to be translated.
Test_Prod_Ind	Char	1	Whether the transaction is a Test (T) or Production (P) transaction.
Document_tag	Char	60	One or more fields taken from the document data to uniquely identify and track the document.



**NOTE:** You and GXS mutually select the nicknames for the application when you order the **in-network translation** component.

**.DOC control record fields**

This section describes the .DOC control record fields.

**Sender\_name**

This field specifies the sender’s nickname, which must be defined in the trading partner relationship database. Also, the nickname must be unique to the application specified in the .FIL record.

### Receiver\_name

This field specifies the receiver's nickname, which must be defined in the trading partner relationship database. Also, the nickname must be unique to the application specified in the .FIL record.



**NOTE:** Nicknames are used to shield the application from changes to the type, versions, or addressing of data the partners see. For example, if a partner changes their EDI address, **in-network translation** makes changes to its trading partner relationship databases, without affecting what the application sends or receives. You must register your partner nicknames with GXS before the first transaction between you and your partner can be enacted.

### Layout

This field specifies the structure and sequence of the records for a given transaction that you will send or receive. **In-network translation** uses this information to determine the format and content of application data records that you will send or expect to receive.

### Test\_Prod\_Ind

For outbound transactions, this field indicates if the transaction is a Test (T) or Production (P) transaction. For inbound transactions, this field indicates if your trading partner is sending a Test (T) or Production (P) transaction.

You can also use this identifier to determine data transformation and routing. For example, when the indicator is T, the document is formatted into a Web application format and routed to the EDI Server. When the indicator is P, the document is translated into EDI and routed to an EDI mailbox.

### Document\_tag

This field is a unique ID used to track the document throughout the translation process. For example, a purchase order could have a purchase order number, internal vendor number, and department number in this field. An invoice could simply have the invoice number in this field. This field could also contain any other identifying information that the application puts there.



## .TRL control record

The .TRL control record is the last record in the package, and it provides balancing controls. The combination of the .FIL record at the beginning of the package and the .TRL record at the end of the package provides application compliance.

A detailed description of the contents of the .TRL control record follows.

### .TRL control record layout:

Name	Type	Size	Description
Record_id	Char	4	The record identifier.
Record_version	Char	1	The version of the .TRL record.

### Version 0 layout:

Name	Type	Size	Description
Record_count	Char	8	The total number of records in the data package.
Dot_count	Char	8	The total number of .xxx records in the data package.
Control_number	Char	9	The control number for this package.

### .TRL control record fields

This section describes the .TRL control record fields.

#### Record\_count

This field specifies the total number of records in the data package. The value in this field (0-9) must be right-aligned and may contain blanks or zeros.

#### Dot\_count

This field specifies the total number of .xxx records in the data package. The value in this field (0-9) must be right-aligned and may contain blanks or zeros.

#### Control\_number

This field is used to track the data package during translation processing. The value in this field must match the control number in the .FIL record.

## Control records for tracking translation processing

The control records that provide tracking and status controls for your data are the following:

- .FAP
- .DTP
- .DST

Each of these control records begins with a .xxx record identifier and the record version. By using a version field, **in-network translation** can support different layouts of control records to accommodate all of your data translation requirements.

### .FAP control record

**In-network translation** creates an .FAP control record for each .FIL record to track each package during translation processing.

A detailed description of the contents of the .FAP control record follows.

#### .FAP control record layout:

Name	Type	Size	Description
Record_id	Char	4	The record identifier.
Record_version	Char	1	The version of the .FAP record.

#### Version 0 layout:

Name	Type	Size	Description
Application	Char	17	The application name and application instance.
Date	Char	8	The date the package was created.
Time	Char	6	The time the package was created.
Control_number	Char	9	The control number of the package being tracked.
Record_count	Char	8	The number of records in the .TRL record of the package.
Dot_count	Char	8	The number of dot (.) records in the .TRL record of the package.

Name	Type	Size	Description
Process_code	Char	3	The processing code for the package.
Actual_record_cnt	Char	8	The actual number of records calculated by <b>in-network translation</b> in the package being tracked.
Actual_dot_cnt	Char	8	The actual number of dot (.) records calculated by <b>in-network translation</b> in the package being tracked.
Process_date	Char	8	The date translation processing started.
Process_time	Char	6	The time translation processing started.
Proc_Accept_count	Char	8	The number of documents in the package that <b>in-network translation</b> accepted.
Proc_Reject_count	Char	8	The number of documents in the package that <b>in-network translation</b> rejected.

## .DTP control record

**In-network translation** creates a .DTP control record for each .DOC record in a package to specify errors that may occur during translation. The data in this record is stored in the .DST database.

A detailed description of the contents of the .DTP control record follows.

### .DTP control record layout:

Name	Type	Size	Description
Record_id	Char	4	The record identifier.
Record_version	Char	1	The version of the .DTP record.

### Version 0 layout:

Name	Type	Size	Description
Sender_name	Char	24	The application or application user that created this document.
Receiver_name	Char	24	For outbound documents, the name of your trading partner. For inbound documents, the name of the application or application user.
Layout	Char	8	The structure of the data records to be translated.
Test_prod_ind	Char	1	Whether the transaction is a test (T) or production (P) transaction.
Document_tag	Char	60	The unique document identifier within your application.
Process_code	Char	3	The numeric processing code for the package.
Process_type	Char	1	Whether the document is a test (T) document or not (F).
Data_type	Char	3	The type of translation extension.
Translation_extension	Char	300	The buffer for translation extension.
Enter_EDIServer_id	Char	3	The time when translation processing begins.

Name	Type	Size	Description
EEC_date	Char	8	The date the document was received by <b>in-network translation</b> .
EEC_time	Char	6	The time the document was received by <b>in-network translation</b> .
Leave_Transform_id	Char	3	The time when translation processing ends.
LTF_date	Char	8	The date translation processing of the package ends.
LTF_time	Char	6	The time translation processing of the package ends.
Doc_chars	Char	8	The number of characters in a .DOC set.
Set_chars	Char	8	The number of characters in an EDI set.
Group_Doc_cnt	Char	8	The number of documents in a group. For X12, a group is a GS GE pair. For EDIFACT, a group is the UNG/UN_ pair.
Group_chars	Char	8	The number of characters in the group segments.
Envelope_Doc_cnt	Char	8	The number of documents in an envelope.
Envelope_chars	Char	8	The number of characters in the envelope segments.

## .DST control record

**In-network translation** creates the .DST control record from data specified in the .FIL and .DTP records during translation processing.

A detailed description of the contents of the .DST control record follows.

### .DST control record layout:

Name	Type	Size	Description
Record_id	Char	4	The record identifier.
Record_version	Char	1	The version of the .DST record.

### Version 0 layout:

Name	Type	Size	Description
Sender_name	Char	24	The application or application user that created this document.
Receiver_name	Char	24	For outbound documents, the name of your trading partner. For inbound documents, the name of the application or application user.
Layout	Char	8	The structure of the data records to be translated.
Test_prod_ind	Char	1	Whether the transaction is a test (T) or production (P) transaction.
Document_tag	Char	60	The unique document identifier within your application.
Process_code	Char	3	The numeric process code for the package.
Process_type	Char	1	Whether the transaction is a test (T) transaction or not (F).
Data_type	Char	3	The type of translation extension.
Translation_extension	Char	300	The buffer for translation extension.
Enter_EDIServer_id	Char	3	The package identifier.
EEC_date	Char	8	The date the document was received by <b>in-network translation</b> .

Name	Type	Size	Description
EEC_time	Char	6	The time the document was received by <b>in-network translation</b> .
Leave_Transform_id	Char	3	The package identifier.
LTF_date	Char	8	The date translation processing of the package ends.
LTF_time	Char	6	The time translation processing of the package ends.
Leave_EDIServer_id	Char	3	The package identifier.
LEC_date	Char	8	The date that <b>in-network translation</b> sent the translated package.
LEC_time	Char	6	The time that <b>in-network translation</b> sent the translated package.
ACKed_id	Char	3	The package identifier.
ACK_date	Char	8	The date that <b>in-network translation</b> sent the acknowledgment for the package.
ACK_time	Char	6	The time that <b>in-network translation</b> sent the acknowledgment for the package.

## Control record for querying translation status

The .QRY control record enables you to query the translation status of your application data.

### .QRY control record

The .QRY control record queries the status of a document or transaction set that is stored in the .DST records. You can submit the .QRY record by itself as a single inquiry or with several .QRY records batched together within a package enveloped in .FIL and .TRL records.

A detailed description of the contents of the .QRY control record follows.

#### .QRY control record layout:

Name	Type	Size	Description
Record_id	Char	4	The record identifier.
Record_version	Char	1	The version of the .QRY record.

#### Version 0 layout:

Name	Type	Size	Description
Application	Char	17	The application name and application instance.
Sender_name	Char	24	The application or nickname of the application user that created this document.
Receiver_name	Char	24	For outbound documents, the nickname of your trading partner. For inbound documents, the name of the application or nickname of the application user.
Layout	Char	8	The structure of the data records to be translated.
Test_prod_ind	Char	1	Whether the transaction is a test (T) or production (P) transaction.
Document_tag	Char	60	The unique document identifier within your application.



## EDI envelopes

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**In-network translation** creates two control records, .DTP and .DST, to track translation processing. These control records save EDI envelope information for the translated document.

### ANSI X12 EDI envelopes

**In-network translation** uses the following extensions for ANSI X12 EDI type documents:

- ISA
- GS
- BG

## ISA EDI envelope

**In-network translation** uses this layout to track information about the X12 ISA/GS/ST envelopes that the EDI data was wrapped in.

### ISA record layout

Name	Type	Size	Description
Record_version	Char	1	Version of ISA EDI envelope

### Version 0 layout

Name	Type	Size	Description
Sender_ISA_Qualifier	Char	2	ISA sender qualifier ISA 05
Sender_ISA_ID	Char	15	ISA sender ID ISA 06
Receiver_ISA_Qualifier	Char	2	ISA receiver qualifier ISA 07
Receiver_ISA_ID	Char	15	ISA receiver ID ISA 08
Date_ISA	Char	6	ISA date field ISA09
Time_ISA	Char	4	ISA time field ISA10
Ctlno_ISA	Char	9	ISA control number ISA13
Sender_GS	Char	15	GS sender ID GS02
Receiver_GS	Char	15	GS receiver ID GS03
Type_GS	Char	2	GS functional group identifier GS01
Date_GS	Char	8	GS date field GS04
Time_GS	Char	4	GS time field GS05
Version_GS	Char	6	GS version field GS08, first 6 characters
Ctlno_GS	Char	9	GS control number GS06
Type_ST	Char	3	ST transaction set ST01
Ctlno_ST	Char	9	ST control number ST02

## GS EDI envelope

**In-network translation** uses this layout track information about the X12 ISA/GS/ST envelopes that the EDI data was wrapped in.

### GS record layout

Name	Type	Size	Description
Record_version	Char	1	Version of GS EDI envelope

### Version 0 layout:

Name	Type	Size	Description
Sender_GS	Char	15	GS sender ID GS02
Receiver_GS	Char	15	GS receiver ID GS03
Type_GS	Char	2	GS functional group identifier
Date_GS	Char	8	GS date field GS04
Time_GS	Char	4	GS time field GS05
Version_GS	Char	6	GS version field GS08, first 6 characters
Ctlno_GS	Char	9	GS control number
Type_ST	Char	3	ST transaction set
Ctlno_ST	Char	9	ST control number

## BG EDI envelope

**In-network translation** uses this layout track information about the X12 ISA/GS/ST envelopes that the EDI data was wrapped in.

### BG record layout

Name	Type	Size	Description
Record_version	Char	1	Version of BG EDI envelope

### Version 0 layout:

Name	Type	Size	Description
Con_Sendr_BG	Char	10	BG communications sender ID
Com_Sendr_U	Char	1	Communication sender ID Usage Value: P or A
Com_Recvr_BG	Char	10	BG communications receiver ID
Com_Recvr_U	Char	1	Communication receiver ID Usage Value: P or A
Appl_Sender_B G	Char	15	BG application sender ID
Appl_Sender_U	Char	1	Application sender ID Usage Value: P or A
Appl_Recvr_BG	Char	15	BG application receiver ID
Appl_Recvr_U	Char	1	Application receiver ID Usage Value: P or A
Date_BG	Char	6	BG date BG05
Time_BG	Char	6	BG time BG06
Ctlno_BG	Char	5	BG interchange control number BG07
Sender_GS	Char	15	GS sender ID GS02
Receiver_GS	Char	15	GS receiver ID GS03
Type_GS	Char	2	GS functional group identifier
Date_GS	Char	8	GS date field GS04
Time_GS	Char	4	GS time field GS05
Version_GS	Char	6	GS version field GS08, first 6 characters
Ctlno_GS	Char	9	GS control number
Type_ST	Char	3	ST transaction set
Ctlno_ST	Char	9	ST control number

## UN/EDIFACT EDI envelope

**In-network translation** uses this layout track information about the UN/EDIFACT envelopes that the EDI data was wrapped in.

### UNB record layout:

Name	Type	Size	Description
Record_version	Char	1	Version of UNB EDI envelope

### Version 0 layout:

Name	Type	Size	Description
Sender_UNB	Char	53	UNB interchange sender S002
Receiver_UNB	Char	53	UNB interchange receiver S003
Date_UNB	Char	6	UNB interchange date
Time_UNB	Char	4	UNB interchange time
CtrlRef_UNB	Char	14	UNB control reference
Sender_UNG	Char	39	UNG application sender ID
Receiver_UNG	Char	39	UNG application receiver ID
CtrlRef_UNG	Char	14	UNG functional group reference
MSGRef_UNH	Char	14	UNH message reference number
MsgID_UNH	Char	20	UNH message ID

## UN/TDI EDI envelope

**In-network translation** uses this layout track information about the UN/TDI (or TRADACOMS) envelopes that the EDI data was wrapped in.

### STX record layout:

Name	Type	Size	Description
Record_version	Char	1	Version of STX EDI envelope

### Version 0 layout:

Name	Type	Size	Description
Sender_STX	Char	49	STX transmission sender FROM
Receiver_STX	Char	49	STX transmission receiver UNTO
Date_STX	Char	6	STX transmission date TRDT
Time_STX	Char	6	STX transmission time TRDT
Send_CtrRef_STX	Char	14	STX reference for transmission
Recv_CtrRef_STX	Char	14	STX reference for transmission
Appl_Ref_STX	Char	14	STX application reference
Batch_Num_BAT	Char	12	BAT batch number
MsgRef_MHD	Char	12	MHD message reference number
MsgID_MHD	Char	7	MHD message ID
CARF_MHD	Char	35	MHD common access reference

## Samples

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This appendix shows examples of a data package, .FIL, .DOC, .DTP, .QRY, and .DST control records, as well as an example of a Web-based form and implementation guide.

## Sample data package

The following is an example of application-formatted data in a data package. In this example, the version 0 .FIL control record format is being used, the name of the application is TTI, and the instance is FALCON. The application data included in this package is to be translated to EDI 850 and 861 transaction sets.

```
.FIL0TTILFALCON          19991027013036EST000000164
.DOC0CAH253              TTI              850      P
DFAL850 CAH253 TTI      19991026161539Order  200-000668-070  000002200
DFAL850 CAH253 TTI      19991026162120Order  200-005328-034  000005000
DFAL850 CAH253 TTI      19991026162101Order  200-901013-070  000060000
DFAL850 CAH253 TTI      19991026162052Order  200-900947-070  000015000
DFAL850 CAH253 TTI      19991026162045Order  200-900787-072  000015000
.DOC0TRAN5G              TTI              850      P
DFAL850 TRAN5G TTI      19991026162249Order  200-000668-070  000002200
DFAL850 TRAN5G TTI      19991026162459Order  200-901013-070  000060000
DFAL850 TRAN5G TTI      19991026162454Order  200-900947-070  000015000
DFAL850 TRAN5G TTI      19991026162448Order  200-900787-072  000015000
DFAL850 TRAN5G TTI      19991026162441Order  200-900311-072  000010000
DFAL850 TRAN5G TTI      19991026162436Order  200-900155-081  000003000
.DOC0TRAN5G              TTI              861P
DFAL861 TRAN5G TTI      19991026162516Receipt 623355001
DFAL861 TRAN5G TTI      19991026162522Receipt 616305002
DFAL861 TRAN5G TTI      19991026162520Receipt 623355201
DFAL861 TRAN5G TTI      19991026162517Receipt 622835601
.TRL00000005600000005000000164
```



## Sample .DTP control record

The following is an example of a data package with .DTP control records. This package is created during translation processing of the application data. In this example, you can see which information from the data package is inserted in this data package for status and tracking purposes. Note that each .DTP control record should display as a single line.

```
.FAP0TTII.FALCON
1999102701303600000016400000056000000050000000056000000619991027013040
.DTP0CAH253 TTI 850 P ADF850ST1TTI XDI TTII
000000O00003504000013470000000100000174000000030000012200000001
ISA001057421000 01057421000 9910270131000000178CAH253
057421000FAL PO00200322 8500022
EEC19991027013042LTF19991027013113XITTIOPF991027B30E316D9BAA3E02
JOB01565IINT.TTII.TTIOPF.MAKEFDT.G0162V00 00000001 TTII INC.
.DTP0TRAN5G TTI 850 P ADF850ST1TTI XDI TTII
000000O00003358000012940000000100000174000000030000012200000002
ISA001057421000 01057421000 9910270131000000178TRAN5G
057421000FAL PO00200335 8500035
EEC19991027013043LTF19991027013113XITTIOPF991027B30E316DA370AA05
JOB01565IINT.TTII.TTIOPF.MAKEFDT.G0162V00 00000002 TTII INC.
.DTP0TRAN5G TTI 861 P ADF861ST1TTI XDI TTII
000000O00000584000002890000000100000174000000030000012200000003
ISA001057421000 01057421000 9910270131000000178TRAN5G
057421000FAL RC00302036 8610036
EEC19991027013043LTF19991027013113XITTIOPF991027B30E316DA8E19B02
JOB01565IINT.TTII.TTIOPF.MAKEFDT.G0162V00 00000003 TTII INC.
.TRL00000000500000005000000164
```

## Sample .DAP control record

The following is an example of a document acknowledgment process (.DAP) control record. This record is created for each .DOC control record that is processed and translated to EDI that is acknowledged by a 997. Note that each .DAP control record should display as a single line.

```
.DAP0AWMABURKLU WARLAM PORDER P11632 A19991006171031
.DAP0AWMACREAGE WARLAM PORDER P11579 A19991006171031
.DAP0AWMAIDAHOC WARLAM PORDER P11604 A19991006171031
.DAP0AWMASOMODY WARLAM PORDER P11630 A19991006171031
.DAP0AWMASPANG L WARLAM PORDER P11554 A19991006171031
```

## Sample Web-based form

The following is an example of a Web-based form that your forms exchange trading partners can access to exchange data with you.

Order Form	
<b>Customer Information</b>	
Customer Name:	<input type="text"/> (required)
Customer Number:	<input type="text"/> (required)
Phone Number:	<input type="text"/> <input type="text"/> <input type="text"/> (required)
User ID:	<input type="text"/> (required)
Password:	<input type="text"/> (required)
<hr/>	
<b>Ship To Information</b>	
Name:	<input type="text"/> (required)
Address:	<input type="text"/> (required)
	<input type="text"/> (optional)
City:	<input type="text"/> State: <input type="text"/> Zip Code: <input type="text"/>
<hr/>	
<b>Credit Information</b>	
Credit Info:	<input type="text" value="Visa"/> ▼ (required)
Account Number:	<input type="text"/> (required)
Expiration Date:	<input type="text"/> (required)
<hr/>	
<input type="button" value="Next"/> <input type="button" value="Clear"/>	

<b>Bill To Address</b>			
<input type="checkbox"/> Click here if same as Ship To Information			
Name:	<input type="text"/>	(required)	
Address:	<input type="text"/>	(required)	
	<input type="text"/>	(optional)	
City:	<input type="text"/>	State: <input type="text"/>	Zip Code: <input type="text"/>
Ship Method:	<input type="text" value="Surface"/>	<input type="text" value="▼"/>	(required)
<hr/>			
Enter quantity, description, part number, and price for all products.			
Qty	Description	Part Number	Price
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> (required)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> (optional)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> (optional)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> (optional)
<hr/>			
If you do not receive an acknowledgment within 48 hours, please call 800-123-4567. Please check all sections of this form for completeness and accuracy.			
<hr/>			
If you have any comments about this order, please enter them here.			
<input type="text"/>			<input type="text" value="▲"/> <input type="text" value="▼"/>
			(optional)
<hr/>			
<input type="button" value="Submit Order"/>		<input type="button" value="Clear"/>	

## Sample implementation guide

The following implementation guide maps application fields with segments and elements in EDI transaction set 850.

- “Purchase order application fields” on this page lists each field and maps it to an 850 segment or element.
- “850 segments and elements” on page 109 lists some of the EDI standards for the 850 segments and elements shown in the 850 Mapping column.

### Purchase order application fields

The following table relates fields in a purchase order application with the EDI segments and elements needed for an 850 transaction set. The table uses the following terms and parameters:

- Field** The name of the field in the application.
- Length** The maximum length of the field.
- Data Type** An A indicates that this field requires an alphanumeric value.  
An N indicates that this field requires a numeric value.
- Comments** Notes about the value, format, or use of the field, element, or segment.
- 850 Mapping** The application field maps this element or segment in the 850 transaction set.

Field	Length	Data Type	Comments	850 Mapping
Header	9	A	Header starting tag, this section would only be once.	
PO Date	8	A	In MMDDYYYY format	020 BEG05
PO Number	10	N	Right justify and zero fill	020 BEG03
Shipment Mode	30	A	With appended spaces, if required	390 TD504
<b>Ship From Location</b>				
Name	50	A	With appended spaces, if required	310 N102
Address	50	A	With appended spaces, if required	330 N301
City	30	A	With appended spaces, if required	330 N401
State	20	A	With appended spaces, if required	340 N402
Country	30	A	With appended spaces, if required	340 N404

Field	Length	Data Type	Comments	850 Mapping
Zip	30	A	With appended spaces, if required	340 N403
<b>Ship To Address</b>				
Name	50	A	With appended spaces, if required	310 N102
Address1	50	A	With appended spaces, if required	330 N301
Address2	50	A	With appended spaces, if required	330 N302
City	30	A	With appended spaces, if required	330 N401
State	20	A	With appended spaces, if required	340 N402
Country	30	A	With appended spaces, if required	340 N404
Zip	30	A	With appended spaces, if required	340 N403
<b>Bill To Address</b>				
Name	50	A	With appended spaces, if required	310 N102
Address1	50	A	With appended spaces, if required	330 N301
Address2	50	A	With appended spaces, if required	330 N302
City	30	A	With appended spaces, if required	330 N401
State	20	A	With appended spaces, if required	340 N402
Country	30	A	With appended spaces, if required	340 N404
Zip	30	A	With appended spaces, if required	340 N403
<b>Buyer Address</b>				
Name	50	A	With appended spaces, if required	310 N102
Address1	50	A	With appended spaces, if required	330 N301
Address2	50	A	With appended spaces, if required	330 N302
City	30	A	With appended spaces, if required	330 N401
State	20	A	With appended spaces, if required	340 N402
Country	30	A	With appended spaces, if required	340 N404
Zip	30	A	With appended spaces, if required	340 N403
Special Instructions	254	A	With appended spaces, if required	410 TD404
Carrier	30	A	With appended spaces, if required	390 TD503
New Customer Indicator	1	A	'Y' if the customer is new 'N' if the customer is not new	020 BEG12

Field	Length	Data Type	Comments	850 Mapping
<b>Customer Contact</b>				
Customer Phone1	30	A	Customer phone number, with appended spaces if required	060 PER04
Customer Phone2	30	A	Customer phone number, with appended spaces if required	060 PER06
Customer's PO Number	254	A	With appended spaces, if required	020 BEG 06
Detail			The details section contains multiple entries separated by newline (\n)	
Line Item Number	2	N	Right justify and zero fill	010 P0101
Quantity	10	N	Right justify and zero fill	010 P0102
Product Number	64	A	With appended spaces, if required	010 P0107
Product Description	254	A	With appended spaces, if required	010 P0109
Unit Price	16	N	Right justify and zero fill, with two decimal places	010 P0104
Container	254	A	With appended spaces, if required	010 P0111
Delivery Date	8	A	In MMDDYYYY format	295 SCH06
Special Instructions	254	A	With appended spaces, if required	299 TD404
Ship Date	8	A	In MMDDYYYY format	295 SCH09
New Line	1	A	New line character (\n) indicates end of entry	
Summary			Trailer tag; used only once in file	
Total	16	N	Sum of all extended prices of products. Right justify and zero fill with two decimal places.	020 AM102

## 850 segments and elements

The following table provides a summary of the standards for the 850 segments and elements that relate to the application fields in the preceding table. The tables in this section use the following terms and parameters:

- Pos** The position where the element must be located in the segment, or the position where the segment must be located in the transaction set.
- Ref** A segment that allows you to define a reference number for your particular product.
- ID** The segment identifier.
- Segment Name** The name of the segment or element, as determined by the EDI standards board.
- Element Name** EDI standards board.
- Required** An M indicates that this field is mandatory. An O indicates that this field is optional.
- Max Use** The maximum number of times you can include this segment in a transaction set.
- Repeat** The maximum number of times a loop can occur.

### Segments

The following table lists the segments needed in the 850 transaction set.

Pos	ID	Segment Name	Required	Max Use	Repeat
	ISA	Interchange Control Header	M	1	
	GS	Functional Group Header	M	1	

### Heading

The following table lists the segments needed in the 850 transaction set header.

Pos	ID	Segment Name	Required	Max Use	Repeat
010	ST	Transaction Set Header	M	1	
020	BEG	Beginning Segment for Purchase Order	M	1	
060	PER	Administrative Communications Contact	O	3	
240	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	

The following table lists the line items needed in the 850 transaction set header.

Pos	ID	Segment Name	Required	Max Use	Repeat
<b>LOOP ID - N1</b>					200
310	N1	Name	O	1	
330	N3	Address Information	O	2	
340	N4	Geographic Location	O	>1	
390	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	
410	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5	

#### Detail

The following table lists the line items needed in the detail section of the 850 transaction set header.

Pos	ID	Segment Name	Required	Max Use	Repeat
<b>LOOP ID - P01</b>					100000
010	P01	Baseline Item Data*	M	1	
<b>LOOP ID - SCH</b>					200
295	SCH	Line Item Schedule**	O	1	
299	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5	
<b>LOOP ID - AMT</b>					>1
600	AMT	Monetary Amount	O	1	
<b>Notes:</b>					
* PO102 is required.					
** When this segment is used, the unit of measurement code (SCH02) should always be identical to the unit of measurement code in the associated PO1 segment (PO103), and the sum of values of quantity (SCH01) should always equal the quantity ordered (PO102) in the PO1 segment.					



### Summary

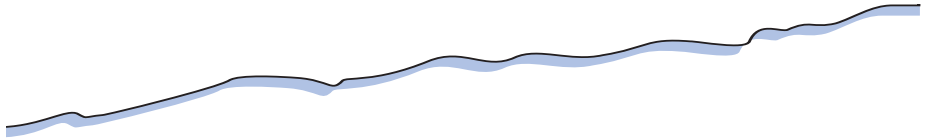
The following table lists the segment needed in the summary section of the 850 transaction set header.

Pos	ID	Segment Name	Required	Max Use	Repeat
030	SE	Transaction Set Trailer	M	1	

### Segments

The following table lists the segments needed to indicate the end of an 850 transaction set.

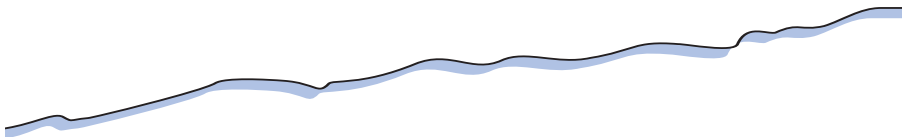
Pos	ID	Segment Name	Required	Max Use	Repeat
	GE	Functional Group Trailer	M	1	
	IEA	Interchange Control Trailer	M	1	



### BEG - Beginning Segment for Purchase Order

The BEG segment indicates the beginning of the purchase order transaction set. The following table lists the elements in the BEG segment:

Ref	ID	Element Name	Required	Type	Min/Max
BEG01	353	Transaction Set Purpose Code	M	ID	2/2
		Code		<b>Name</b>	
		00		Original	
		ZZ		Mutually Defined	
BEG02	92	Purchase Order Type Code	M	ID	2/2
		Code		Name	
		BH		Bill and Hold	
		DR		Direct Ship	
		KC		Contract	
		OS		Special Order	
		SO		Shipped Order	
		ZZ		Mutually Defined	
BEG03	324	Purchase Order Number	M	AN	1/22
BEG05	373	Date Assigned by the purchaser to purchase order	M	DT	8/8



### IEA - Interchange Control Trailer

The IEA segment defines the end of an interchange of zero or more functional groups and interchange-related control segments. The following table lists the elements in the IEA segment:

Ref	ID	Element Name	Required	Type	Min/Max
IEA01	116	Number of Included Functional Groups	M	N0	1/5
IEA02	112	Interchange Control Number	M	N0	9/9

## Implementation checklist

---

Use this checklist to select the data format, processing, and delivery options that best meet your translation needs and to provide the required setup information.

### Data format options

Before you choose a data format option, you need to have a trading partner agreement in place. This agreement specifies the data format requirements for exchanging electronic data with your trading partner.

#### Outbound data format

The data format that you will be sending to your trading partners.

<input type="checkbox"/>	Application data format
<input type="checkbox"/>	EDI data format _____ (version _____)
<input type="checkbox"/>	Web-based form data

#### Inbound data format

The data format that you will be receiving from your trading partners.

<input type="checkbox"/>	Application data format
<input type="checkbox"/>	EDI data format _____ (version _____)
<input type="checkbox"/>	Web-based form data

### EDI mapping requirements

The following information is required when you have your data translated to or from an EDI data format.

<input type="checkbox"/>	EDI data format
	<input type="radio"/> ANSI X12 <input type="radio"/> ODETTE <input type="radio"/> UN/EDIFACT <input type="radio"/> UN/TDI
<input type="checkbox"/>	EDI transaction set: _____
<input type="checkbox"/>	EDI version: _____
<input type="checkbox"/>	Number of segments: _____
<input type="checkbox"/>	Estimated number of trading partners: _____
<input type="checkbox"/>	EDI message format: _____
<input type="checkbox"/>	Provide a copy of the EDI map you are using, if applicable

### Sending data for translation

If you are sending data to **in-network translation**, you need to identify which Information Exchange address you will use to send the data.

Information Exchange address used to send data to <b>in-network translation</b>
System ID: _____
Account: _____
User ID: _____



**NOTE:** Once you have identified which Information Exchange address you will use to send a particular transaction type to **in-network translation**, you can only use that address to send that transaction type. If you try to send the same transaction type from a different Information Exchange address, say for testing purposes, **in-network translation** will reject the data. If you want to have alternative addresses from which you can send the transaction, you should also register these addresses with **in-network translation**.

## Processing options

Use this part of the checklist to choose the following processing options:

- Checking for errors
- Packaging of application data
- Intelligent processing of application data
- Processing schedule
- Generating acknowledgments

### Checking for errors

**In-network translation** tests for two error conditions before it begins translation processing. You can choose to receive the following notes during this preprocessing.

- Receive a *junkmail* note whenever **in-network translation** receives invalid data. For example, if **in-network translation** expects to receive an 810 EDI transaction set but, instead, receives an 856.
- Receive a *suspend* note whenever **in-network translation** receives the following:
  - Data for a trading partner who is not defined in your trading partner relationships
  - Data that is not defined in your translation map. For example, an EDI message using a non-supported transaction or version

### Packaging of application data

**In-network translation** requires that application data contain specific control records before processing begins. You can choose to provide the control records, or have GXS provide them after receiving your application data.

- Create the control records before sending outbound application data
  - Have in-network translation insert the control records around the outbound application data
- Note:** There is a one-time charge during the implementation process for this option.

### Intelligent processing of application data

**In-network translation** processes the control records to check for file sequence and missing data. You can choose (from three levels of compliance checking) the level that your data must satisfy before translation processing can start.

- |   |
|---|
| <input type="checkbox"/> If the application name specified in the .FIL record is not valid, stop processing and send an e-mail note   |
| <input type="checkbox"/> If the control number specified in the .FIL record is not sequential from the last processed control number: <ul style="list-style-type: none"><li><input type="radio"/> Continue processing and notify with an e-mail note</li><li><input type="radio"/> Suspend processing and notify with an e-mail note</li></ul>  |
| <input type="checkbox"/> If the actual number of records processed do not match the number of records specified in the .TRL record: <ul style="list-style-type: none"><li><input type="radio"/> Continue processing.</li><li><input type="radio"/> Continue processing and notify with an e-mail note</li><li><input type="radio"/> Suspend processing and notify with an e-mail note</li></ul> |

### Processing schedule

When either inbound or outbound data to be translated arrives in your Information Exchange mailbox, it is immediately forwarded to **in-network translation**. Once your data is received, you can choose to have **in-network translation** process it immediately or on a scheduled basis.

- |  |
|--|
| <input type="checkbox"/> Process, translate, and deliver outbound data: <ul style="list-style-type: none"><li><input type="radio"/> Immediately</li><li><input type="radio"/> Hourly</li><li><input type="radio"/> Daily</li></ul> |
| <input type="checkbox"/> Process, translate, and deliver inbound data: <ul style="list-style-type: none"><li><input type="radio"/> Immediately</li><li><input type="radio"/> Hourly</li><li><input type="radio"/> Daily</li></ul>  |

### Generating acknowledgments

You can virtually track the translation process from end to end by requesting that **in-network translation** generate acknowledgments at the following checkpoints.

<input type="checkbox"/>	When your data is received by the network
<input type="checkbox"/>	When your data is received by <b>in-network translation</b>
<input type="checkbox"/>	When your data completes the preprocessing error testing
<input type="checkbox"/>	When your data is successfully translated
<input type="checkbox"/>	When your data is sent to your trading partner's mailbox

## Delivery options

You can choose the following delivery options:

- Final output of your translated data
- Mailbox system for receiving data, reports, and e-mail notes
- Type and frequency of translation reports you want to receive
- Data archiving

### Final output of your translated data

Your inbound translated data can be sent to you.

<input type="checkbox"/>	In an application file
<input type="checkbox"/>	In a data package
<input type="checkbox"/>	In an EDI envelope: <ul style="list-style-type: none"> <li><input type="radio"/> BG</li> <li><input type="radio"/> GS</li> <li><input type="radio"/> ISA</li> <li><input type="radio"/> STX</li> <li><input type="radio"/> UNB</li> </ul> <p><b>Note:</b> If you are sending data to an EDI-enabled trading partner, you must use the EDI envelope your trading partner requires.</p>

### Mailboxes for receiving data, reports, and e-mail notes

Choose the mailbox to which in-network translation will send your translated data.

<input type="checkbox"/> Information Exchange
<input type="checkbox"/> Web-based EDI Services
<input type="checkbox"/> EDI VAN Interconnect

Choose the mailbox to which in-network translation will send e-mail notes and translation reports.

<input type="checkbox"/> Information Exchange
<input type="checkbox"/> Lotus Notes
<input type="checkbox"/> Web-based EDI Services
<input type="checkbox"/> Other: _____

### Activity and run-time reports

Choose the reports you would like to receive.

<input type="checkbox"/> Activity reports <ul style="list-style-type: none"><li><input type="radio"/> Daily</li><li><input type="radio"/> Weekly</li><li><input type="radio"/> Monthly</li></ul>
<input type="checkbox"/> Run-time reports <ul style="list-style-type: none"><li><input type="radio"/> Full</li><li><input type="radio"/> Summary</li><li><input type="radio"/> Condensed Summary</li><li><input type="radio"/> Error</li><li><input type="radio"/> Condensed Error</li><li><input type="radio"/> No-detail</li></ul>



### Archiving data

Whenever you send your data through the network, GXS also stores a copy of it for 90 days. You can choose either the standard or customized data archive.

- Standard data archive: GXS stores a copy of your data for 90 days
- Customized data archive: GXS stores a copy of your data for \_\_\_\_ days

## Setup requirements

**In-network translation** uses maps to translate the data you exchange with your trading partners.

### Trading partner relationships

You need to provide the following information to define your trading partner relationships.

- For application data:
  - Information Exchange address:
    - System ID: \_\_\_\_\_
    - Account: \_\_\_\_\_
    - User ID: \_\_\_\_\_
  - Sender e-mail address: \_\_\_\_\_
  - Recipient e-mail address: \_\_\_\_\_
  - Mailbox system: \_\_\_\_\_
- For EDI data:
  - Sender qualifiers: \_\_\_\_\_
  - Receiver qualifiers: \_\_\_\_\_
  - Sender user ID: \_\_\_\_\_
  - Recipient user ID: \_\_\_\_\_
- Define trading partners in the trading partner relationship database
- For EDI data, register your trading partner details with your EDI translation software

- If you are sponsoring Web-based forms:
  - Identify the businesses who need access to those forms
  - Provide instructions for your users

Process and delivery options

You can specify alternate data translation and delivery when you send data in a data package or an EDI transaction.

<input type="checkbox"/> Production translation indicator <input type="radio"/> Data format: _____ <input type="radio"/> Routing: _____
<input type="checkbox"/> Test translation indicator <input type="radio"/> Data format: _____ <input type="radio"/> Routing: _____

Testing options

Once your trading partner relationships are defined and your translation maps are complete, testing may begin. Tests verify optimum connectivity between you and your trading partners and successful transmission of correctly translated documents.

<input type="checkbox"/> Connectivity testing <input type="radio"/> Trading partner: _____ <input type="radio"/> Information Exchange address: System ID: _____ Account: _____ User ID: _____
<input type="checkbox"/> Transmission testing





# Glossary

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This glossary defines technical terms used in the documentation for EDI Services products and services. It includes product and service terminology as well as selected terms and definitions from:

- *The American National Standard Dictionary for Information Systems*, ANSI X3.172-1990, copyright 1990 by the American National Standards Institute (ANSI). Copies may be purchased from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036. Definitions are identified by the symbol (A) after the definition.
- *The Information Technology Vocabulary* developed by Subcommittee 1, Joint Technical Committee 1, of the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC JTC1/SC1). Definitions of published parts of this vocabulary are identified by the symbol (I) after the definition; definitions taken from draft international standards, committee drafts, and working papers

being developed by ISO/IEC JTC1/SC1 are identified by the symbol (T) after the definition, indicating that final agreement has not yet been reached among the participating National Bodies of SC1.

## A

access method. A technique, implemented in software, that controls the flow of information through a network.

acknowledgment. An indication that an item sent was received. See *functional acknowledgment* or *network acknowledgment*.

address. In data communication, the unique code assigned to each device, workstation, user, or multicast group connected to a network.

application. A collection of software components used to perform specific types of user-oriented work on a computer.

authentication. (1) In computer security, verification of the identity of a user or the user's eligibility to access an object. (2) In computer security, verification that a message has not been altered or corrupted. (3) In computer security, a process used to verify the user of an information system or protected resources.

## B

block list. An optional list that Web data transfer users can have set up in order to restrict anyone using specified Information Exchange addresses from sending electronic documents to them.

browser. See *Web browser*.

business cycle. The set of forms and the associated business transactions that trading partners use to complete the purchase and shipment of goods.

## C

CDH. See *common data header*.

client. A computer system or process that requests a service of another computer system or process that is typically referred to as a server or a host. Multiple clients may share access to a common server or host.

common data header. A set of control information about a file, which is sent to Information Exchange by some sending interfaces. When the file is received by the trading partner, the receiving interface can use the information in the CDH.

## D

data package. Application data that is enclosed in certain control records, such as .FIL, .DOC, and .TRL control records.

DataInterchange. A software product that supports multiple standards, including UN/EDIFACT, X12, ODETTE, and UCS, to reformat data for electronic transmission.

## E

e-commerce. The subset of e-business that involves the exchange of money for goods or services purchased over an electronic medium such as the Internet.

EDI. See *electronic data interchange*.

EDI Server. The hardware and software infrastructure that provides the EDI Services Web-based components and bridges them to traditional components, such as Information Exchange and **in-network translation**, so messages can flow seamlessly across the network, other value-added networks, and the Internet. See also *forms exchange* and *Web data transfer*.

**EDI VAN Interconnect.** A communication service that permits the exchange of electronic information between Information Exchange users and their trading partners that use other value-added networks (VANs) that are interconnected with the network.

electronic data interchange (EDI). A method of transmitting business information over a network, between business associates who agree to follow approved national or industry standards in translating and exchanging information.

electronic mail (e-mail). (1) Correspondence in the form of messages transmitted between user terminals over a computer network. (T)

(2) The generation, transmission, and display of correspondence and documents by electronic means. (A)

encryption. In computer security, the process of transforming data into an unintelligible form in such a way that the original data either cannot be obtained or can be obtained only by using a decryption process.

envelope. That part of a message containing information used in the submitting, sending, or delivering of a message. (T)

Expedite. A collection of communication software products and network interface products that provides access to Information Exchange.

extranet. A private, virtual network that uses access control and security features to restrict the usage of one or more intranets attached to the Internet to selected subscribers, such as personnel from a sponsoring company and its business partners.

## F

File Transfer Protocol (FTP). In the Internet suite of protocols, an application layer protocol that uses TCP and Telnet services to transfer bulk-data files between machines or hosts.

forms exchange. A communication service that permits Web data transfer users to send, process, and receive forms via a Web browser. See also *EDI Server*.

forms sponsor. A business, industry group, or other common interest group that sponsors one or more Web-based forms for **forms exchange** users.

ftp. See *File Transfer Protocol*.

functional acknowledgment. An electronic acknowledgment returned to the sender to indicate acceptance or rejection of electronic transactions. Contrast with *network acknowledgment*.

## G

gateway. (1) A functional unit that interconnects two computer networks with different network architectures. A gateway connects networks or systems of different architectures. A bridge interconnects networks or systems with the same or similar architectures. (T)

(2) A functional unit that connects two networks or subnetworks having different characteristics, such as different protocols or different policies concerning security or transmission priority.

Greenwich mean time. The mean solar time at the prime meridian (0 degrees longitude) of Greenwich, England. Because the second is no longer defined in terms of astronomical phenomena, the preferred name for this time scale is coordinated universal time (UTC).

## H

header. (1) System-defined control information that precedes user data.

(2) The portion of a message that contains control information for the message such as

one or more destination fields, name of the originating station, input sequence number, character string indicating the type of message, and priority level for the message.

## I

**EDI Services.** A family of services and software products that offer secure EDI services via the network. See also *DataInterchange*, *EDI VAN Interconnect*, *Expedite*, *forms exchange*, *Information Exchange*, *Information Exchange Administration Services*, *in-network translation*, *TCP/IP FTP gateway*, and *Web data transfer*.

**ID.** Identifier. See also *user ID*.

**implementation guide.** A document that lists your EDI or application mapping requirements and relates the fields in an application format to the required EDI segments.

**inbound.** In communication, pertaining to data that is received from the network. Contrast with *outbound*.

**Information Exchange.** The mailbox component of EDI Services that permits users to exchange EDI and non-EDI data electronically with their trading partners.

**Information Exchange Administration Services.** A value-added service that the Information Exchange administrator uses to perform administrative tasks for Information Exchange. This service is now available on the Web at [http://www.gxsolc.com/edi\\_bes.html](http://www.gxsolc.com/edi_bes.html).

**in-network translation.** A communication service that translates and delivers EDI and non-EDI data, based on translation maps and trading partner relationships via Information Exchange.

**internet.** A collection of interconnected networks that uses the Internet suite of protocols. The internet that allows universal access is referred to as the Internet (with a capital "I"). An internet that provides restricted access (for example, to a particular enterprise or organization) is frequently called an intranet, whether or not it also connects to the public Internet.

**Internet.** The worldwide collection of interconnected networks that uses the Internet suite of protocols and permits public access.

**internet address.** See *IP address*.

**Internet Service Provider (ISP).** An organization that provides access to the Internet.

**IP address.** The unique 32-bit address that specifies the location of each device or workstation on the Internet. For example, 9.67.97.103 is an IP address.

## J

**JavaScript.** A scripting language that resembles Java and was developed by Netscape for use with the Netscape browser.

**junkmail file.** A file that **in-network translation** creates during a preprocessing test if it detects problems with either the format or content of the data to be translated. The file contains the .DOC data that failed the test and



a .DTP record for each .DOC record.

## M

message. A free-form, usually short, communication to a trading partner. In UN/EDIFACT standards, a group of logically related data that make up an electronic business document, such as an invoice.

message acknowledgment. A response from Information Exchange or another EDI Services component indicating that a message was delivered, received, or purged, or various combinations of the three.

message header. The leading part of a message that contains information, such as the source or destination code of the message. See also *header*.

## N

network. A configuration of data processing devices and software connected for information interchange.

network acknowledgment. A response from the network indicating the status of an interchange envelope, such as sent or received. Contrast with functional acknowledgment.

notify. An online service for reporting problems to the network.

## O

outbound. In communication, pertaining to data that is sent to the network. Contrast with *inbound*.

## P

permit list. An optional list that Web data transfer users can have set up in order to permit only those using a specified Information Exchange address to send electronic documents to them.

project coordinator. A project manager who works with an in-network translation customer to (a) manage the development of translation maps, trading partner definitions, and, optionally, Web-based forms; (b) coordinate the communications between the customer and in-network developers who are creating the translation map and forms; (c) provide status information and create, maintain, and distribute a project tracking document as the implementation work progresses; (d) arrange for testing between the customer's system, the **in-network translation** service, and one trading partner; (e) obtain the customer's signoff when setup and testing is complete.

## R

receiver. The trading partner to whom you are sending information.

## S

Secure Sockets Layer (SSL). A security protocol that allows the client to authenticate the server and all data and requests to be encrypted. SSL was developed by Netscape Communications Corp. and RSA Data Security, Inc.

service administrator. In **Web data transfer**, a focal point who interacts with GXS to (a) identify their trading partners; (b) request user names for their account; (c) maintain a list of security verification IDs; and (d) make service-related calls to GXS Community Support.

security verification ID. In **Web data transfer**, an identifier that is used to validate the service administrator's identity when contacting GXS by telephone.

SSL. See *Secure Sockets Layer*.

suspend file. A file that **in-network translation** creates during a preprocessing test if it finds any .DOC data that is not predefined in the trading partner relationship database. The file contains the .DOC data that failed the test and a .DTP record for each .DOC record.

## T

TCP/IP. See *Transmission Control Protocol/Internet Protocol*.

TCP/IP FTP gateway for the Internet. A communication service that permits users to connect to Information Exchange via TCP/IP and submit FTP commands to exchange EDI data, files, and e-mail with trading partners.

trading partner. A customer, supplier, or another individual or company with whom you exchange business information electronically.

trading partner relationship. An in-network translation document that identifies the translation map to be used for translating a specific transaction type when it is exchanged between trading partners.

trailer. A control structure that indicates the end of an electronic transmission.

translation. The process of converting information from a data format to a standard format, from a standard format to a data format, or from one data format to another data format.

translation map. An in-network translation document that defines how each field or parameter in one format relates to a corresponding field or parameter in another format.

Transmission Control Protocol/Internet Protocol (TCP/IP). A set of communications protocols that supports peer-to-peer connectivity functions for both local and wide area networks.

## U

Uniform Communication Standard (UCS). A standard EDI format used in the grocery industry.

UN/EDIFACT. United Nations Directories for Electronic Data Interchange for Administration, Commerce, and Transport.

user ID. A name that identifies a user within the account of an EDI Services component.

## V

validation. The checking of data for correctness or for compliance with applicable standards, rules, and conventions. (A)

value-added network (VAN). A network that provides value-added services, such as administration services, interconnection and interoperation with other services, and data security. See also *EDI VAN Interconnect*.

## W

Web. See *World Wide Web*.

Web browser. A client program that initiates requests to a Web server and displays the information that the server returns.

Web data transfer. A communication service that permits users to quickly and securely send, process, manage, and receive files via a Web browser. See also *EDI Server*.

Web trading partner. A trading partner using Web-based IBM EDI Services to exchange electronic information with your business via a Web browser.

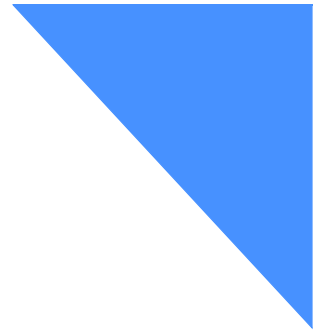
World Wide Web (WWW). A network of servers that contains programs and files. Many of the files contain hypertext links to other documents available through the network.

WWW. World Wide Web.

## X

X12. A common EDI standard approved by the American National Standards Institute.





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