IBM Sterling Gentran:Server for Microsoft Windows



Glossary

Documentation Date: 26 October 2012

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Note

Before using this information and the product it supports, read the information in "Notices" on page 13.

This edition applies to the 5.3.1 version of IBM Sterling Gentran:Server[®] for Microsoft Windows and to all subsequent releases and modifications until otherwise indicated in new editions.

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Glossary

Α

acknowledgment. A response that confirms the receipt of something, such as an order.

advanced data distribution. An optional gateway component that can be used by a trading partner to initiate a communications session. Unlike a standard communications session where Gentran Server for Windows contacts a VAN or trading partner, Advanced Data Distribution is passive, waiting for a trading partner to contact the user.

AIAG. See Automotive Industry Action Group.

American National Standards Institute (ANSI). A private, nonprofit organization whose membership includes private companies, U.S. government agencies, and professional, technical, trade, labor, and consumer organizations. ANSI coordinates the development of voluntary consensus standards in the U.S.

ANSI. See American National Standards Institute.

application file. A file that defines an application for the creation of an import or export map. An application file must contain all the information that must be extracted from a partner's document (if the map is inbound) or sent to a partner (if the map is outbound), so that the system can accurately process the data.

application system. A computer system, outside of EDI, that is designed to fulfill specific business functions, such as accounting, purchasing, materials control, human resources, shipping, and other systems.

asynchronous. Pertaining to communication among distributed processes in which data can be transmitted intermittently rather than in a steady stream.

attachment. A file that is attached to an email message or other electronic document.

audit log. A log file containing a record of system events and responses.

audit message. A message in the Audit Notification System that uses descriptive text and other information to log summary data about system processing activities. System components request the Audit Notification Server to write specific audit messages to reflect processing activity that occurs within the components.

authorization. The process of granting a user, system, or process either complete or restricted access to an object, resource, or function.

Automotive Industry Action Group (AIAG). The standards-setting group for the automotive industry. The standards form a subset of the ANSI X12 standard.

В

Base64 encoding. A 65-character subset of US-ASCII, enabling 6 bits to be represented per printable character, and the extra 65th character (=) is used to signify a special processing function. The encoding process represents 24-bit groups of input bits as output strings of 4 encoded characters. Proceeding from left to right, a 24-bit input group is formed by concatenating 3 8-bit input groups and these 24 bits are then treated as 4 concatenated 6-bit groups, each of which is translated into a single digit in the base 64 alphabet. Each 6-bit group is used as an index into an array of 64 printable characters. The character referenced by the index is placed in the output string.

batch mode. A non-interactive way of processing data transactions that have been collected in advance and combined into a single batch file.

Batch Transaction Standard. A standardized file submission format that enables organizations to submit electronic transactions in a non-real-time mode.

browser. A window that displays a list of items, such as documents (transaction sets), interchanges, and translation objects.

business action. For RosettaNet, a message with content of a business nature such as a Purchase Order Request or a Request For Quote. The exchange of business actions and business signals comprise the message choreography necessary to complete a business activity specified by a PIP.

business activity. For RosettaNet, one or more discrete activities encapsulated by PIP and as specified by the business analysts during development of the PIP blueprint. The exchange of business actions and business signals comprise the message choreography necessary to complete a business activity specified by a particular PIP. For example, PIP 3A4 (Manage Purchase Order) specifies three separate business activities: Create Purchase Order, Change Purchase Order.

business operational view. For RosettaNet, the first section of every PIP specification, which describes the business-related aspects of the PIP. This is information captured from business analysts during development of the PIP. The BOV is the PIP Blueprint as approved by the RosettaNet members.

business signal. A message exchanged between two RosettaNet network applications to communicate certain events within the execution of a PIP instance. Examples of signals include "receipt and successful validation of a message" (Receipt Acknowledgement) and "receipt of a message out of sequence" (General Exception). A signal is used to communicate an exception condition within the normal message choreography of a PIP.

С

cluster. A collection of complete systems that work together to provide a single, unified computing capability.

Communication Controller. A controller that regulates the exchange of data between Gentran Server for Windows and its organizations (value-added networks (VANs) or trading partners). Through the Gentran Server for Windows file interface, the communication controller can support leased or dialed connections, as well as interaction with third-party communications packages. To be a communications controller, a machine must be capable of sending and receiving files via a modem or other communications device. In a single workstation system, all three controllers (communications controller, and the Gentran Server for Windows Primary System Controller) all reside on the same machine.

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communications gateway. Software or a computer running software that enables two different computers to communicate.

communications session. Everything sent and received to/from one telephone number in one continuous period of connection. This could include sending two or three interchange envelopes to a network, each for a different trading partner.

compliance. The state of an implementation that fully meets each and every requirement of the standards specification. Specifically, each transaction, action, or data element produced by the implementation must be valid as defined by the standard.

component. A part of a specified source that generates an audit message (such as the Gentran Server for Windows Unattended program).

component data element. A simple data element that belongs to a composite data element. Component data elements are also called subelements.

composite data element. A data element that contains two or more component data elements or subelements. Composites are defined by the EDI standards that use them (EDIFACT, TRADACOMS, and certain ANSI X12 standards).

conformance. The ability to unambiguously demonstrate that a particular implementation is correct with respect to its formal model.

constant. A standard rule that enables the movement of a literal constant value to a specified element or field, to indicate a qualifying relationship with another element or field, and map the current date or time to the specified element or field.

cross-reference table. A table that is created in Partner Editor and is used to convert the user's values to a trading partner's values during outbound processing, or a partner's values to the user's values during inbound processing.

cryptographic key. A parameter that determines a cryptographic transformation between plaintext and ciphertext.

D

database (DB). A collection of interrelated or independent data items that are stored together to serve one or more applications.

DB. See database.

deactivation. A function that makes map components unavailable for use by the system. The system does not enable the deactivation the mandatory groups, segments, composites, and elements.

default. A value that is automatically supplied or assumed by the system or program when the user does not specify a value.

delimited segment. A variable-length segment that uses separator characters to mark the beginning of groups, segments, or fields.

delivery agent. An agent that runs external programs on messages that are sent and received.

delivery rule. A list of criteria by which processing of messages is performed.

digital certificate. An electronic document used to identify an individual, a system, a server, a company, or some other entity, and to associate a public key with the entity. A digital certificate is issued by a certification authority and is digitally signed by that authority.

digital signature. Information that is encrypted with a private key and is appended to a message or object to assure the recipient of the authenticity and integrity of the message or object. The digital signature proves that the message or object was signed by the entity that owns, or has access to, the private key or shared-secret symmetric key.

distribution list. A global list of mailbox server mailboxes. A distribution list can be used by all mailbox users. Instead of addressing messages to each individual, the individual mailboxes can be grouped into a distribution list.

document. In ANSI, a business document, such as a purchase order or invoice, that can be represented in any supported format. For example, an XML purchase order and an EDI purchase order are both documents, but each uses a different format. See also message.

document type definition (DTD). The rules that specify the structure for a particular class of SGML or XML documents. The DTD defines the structure with elements, attributes, and notations, and it establishes constraints for how each element, attribute, and notation can be used within the particular class of documents.

DTD. See document type definition.

Ε

EDI. See electronic data interchange.

EDIA. See Electronic Data Interchange Association.

EDI data element. A basic unit of identifiable and definable data for the purpose of recording and interchange.

EDI standard. The industry-supplied, national or international formats to which information is converted, allowing different computer systems and applications to exchange information.

electronic data interchange (EDI). The exchange of structured electronic data between computer systems according to predefined message standards.

Electronic Data Interchange Association (EDIA). An organization that sets standards for the motor, rail, ocean, and air industries administered by EDIA. This is the original EDI organization for the United States, and through it, the original EDI Standards were developed, published, and maintained. It has now changed its name to EDIA, and has become the national EDI user group for the United States.

element. A component of a document, such as an EDI, XML, or ROD record. An element can be a simple element or a compound element.

envelope. A combination of header, trailer, and control segments that define the start and end of an individual EDI message. Each envelope contains a header segment and a trailer segment, which separate the envelope from other envelopes and provide information about the contents of the envelope.

export map. A map that defines how to move data from EDI standard formatted documents to application files. An export map is necessary for inbound processing.

export translation object. See export map.

Extensible Markup Language (XML). A standard metalanguage for defining markup languages that is based on Standard Generalized Markup Language (SGML).

F

failover. An automatic operation that switches to a redundant or standby system in the event of a software, hardware, or network interruption.

failover system. A standby database, server, or network that serves as a backup if the primary system fails or is temporarily shut down for servicing.

field. The smallest piece of information that is defined in the application file. A field is the application map component that is mapped (linked) to a corresponding EDI element.

file system gateway. Software that enables messages to be routed to or from designated folders on a file system. The File System Gateway can also be used to test Gentran Server for Windows to ensure that it is processing messages correctly.

filter.

- 1. A mailbox server feature in which message display criteria can be set.
- 2. A mailbox server feature in which message display criteria can be set.

filter browser. A browser that displays messages matching predetermined criteria for a selected mailbox.

fixed-format file. See application file.

form. A set of instructions that indicate how the system should format data. In the Forms Integration subsystem, screen entry and printed forms can be designed for EDI documents.

framework. A set of related architectural components.

functional group. An envelope that contains related business documents. The standards define which transaction sets should be placed together into a functional group envelope.

functional service view. For RosettaNet, the second section of every PIP specification describing the PIP exchange protocol. The FSV is derived systematically from the BOV.

G

gateway. A software component that controls the transmission of messages between two parties. The gateway is responsible for using the correct protocols to transfer messages between the sender and receiver.

group. A looping structure that contains related records or segments that repeat in sequence until either the data ends or the maximum number of times that the loop is allowed to repeat is exhausted.

Η

header. Control information prepended to data content that is normally used to describe the data or the relationship of the data with the applications.

header segment. The first EDI segment in an envelope that contains a unique control number that identifies the envelope.

HTTP. See Hypertext Transfer Protocol.

HTTPS. See Hypertext Transfer Protocol Secure.

Hypertext Transfer Protocol (HTTP). An Internet protocol that is used to transfer and display hypertext and XML documents on the web.

Hypertext Transfer Protocol Secure (HTTPS). An Internet protocol that is used by web servers and web browsers to transfer and display hypermedia documents securely across the Internet.

L

implementation framework. A set of guidelines for creating instances of related architectural components.

implementation framework view. For RosettaNet, the transfer protocol specific requirements for any given PIP, based upon the requirements in the BOV and FSV sections of the PIP, as well as the format of the service content.

import map. A map that defines how to move data from an application file (flat file definition), which may contain multiple documents, to the EDI standard-formatted documents that partners expect to receive. An import map is necessary for outbound processing.

import translation object.

inbound mapping. A mapping process in which the system translates a trading partner's EDI standard formatted business document to an application file format. To translate inbound data, an export map in Gentran Server for Windows Application Integration is required.

inbox. A Gentran Server for Windows message queue that stores messages waiting to be processed by a gateway.

In Document. A list of documents in the Gentran Server for Windows browser that the system received but that have not yet been processed by the user. Once the documents are processed (printed or exported) the documents are transferred to the In Drawer.

In Drawer. A list of documents in the Gentran Server for Windows browser that were received and processed.

integer. A positive or negative whole number, or zero.

integration component. An optional component that provides the user interface to the Gentran Server for Windows Application Integration and Forms Integration subsystems.

interchange. A container for all the functional groups of documents (transaction sets) sent from one sender to one receiver in the same transmission.

Κ

key field. A field in a data file that contains the values that Gentran Server for Windows uses to determine the trading partnership code.

L

label. A description of information that can be almost anything on a translation object that is not an element, a keyword title, or an information indicator. A label can also be used as information dividers, such as a line of dashes.

literal constant. A repository for storing information that is to be used at a later point in the map. Typically, constants are used in an outbound map to generate a qualifier.

location table. A table that is used to contain address-related information about the partner.

lookup table. A database table used to map one or more input values to one or more output values.

Μ

mailbox. A folder or set of folders used to store messages that are being transferred between mail recipients. There are two types of Gentran Server for Windows mailboxes: non-gateway and gateway.

manifest. A component of the service header that provides information (in the form of a structured listing) about the payload. It describes certain characteristics of the service content and also lists the number of attachments included in the payload.

map. A set of instructions that are defined in the Gentran Server for Windows Application Integration subsystem and that indicate the corresponding relationship between an application file and the EDI standards (including the Japanese Center for the Information of Industry (CII) standard), and defines how the system should translate data.

MAPI. See Message Application Programming Interface.

MAPI gateway. An optional gateway that links the Mailbox Server mailboxes with predefined MAPI message stores.

MAPI profile. A profile that is used to store configuration information about a particular user of the MAPI service. These profiles keep track of the proper message storage areas, address book, and transport protocols for the user.

message. In EDIFACT and TRADOCOM, a business document, such as a purchase order or invoice, that can be represented in any supported format. For example, an XML purchase order and an EDI purchase order are both documents, but each uses a different format. See also document.

Message Application Programming Interface (MAPI). A layered messaging subsystem that is built into Microsoft Windows. This subsystem acts as a broker between a client (such as Mailbox Server) requesting services, and the messaging system (such as Microsoft Exchange Server) providing those services.

message choreography. The exchange of business actions and business signals required to complete a business activity specified by a particular standard process.

message guideline. A part of a published RosettaNet specification that provides information that supports, but cannot be specified in, a particular declarative schema. Both the message guideline and the declarative schema (presently an XML DTD) are used to validate that a particular message or service content is properly formatted and uses expected values.

message ID. See message identifier.

message identifier (message ID). A number ranging between 1-65535 that indicates a specific error for a component.

message store. A hierarchical structure in which the storage area is divided into a collection of folders and the messages are subdivided into a set of properties which the client software can access. These folders are created and controlled by the MAPI messaging software.

Ν

nonrepudiation. In business-to-business communication the ability of the recipient to prove who sent a message based on the contents of the message. This can derive from the use of a digital signature on the message, which links the sender to the message.

notification. A user-configured e-mail, page, alert message, or Notification Type Process Control event that is initiated by the Audit Notification System when a specified error message is generated.

notification log entry. An item displayed on the notification log that summarizes information about a notification made by the audit notification system.

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notification subsystem. A system that enables users to be proactively notified when an error occurs by setting up notification parameters.

0

Odette. An organization, formed by the automotive industry, that sets standards for e-business communications, engineering data exchange and logistics management.

Odette FTP. A packet-oriented file transfer protocol that facilitates electronic data interchange between trading partners. The protocol supports both direct peer-to-peer communication and indirect communication using a VAN.

one-action activity. A business activity that requires the successful exchange of a business action and a receipt acknowledgment signal between trading partners to be deemed complete.

open database connectivity. A standard application programming interface (API) for accessing data in both relational and nonrelational database management systems. Using this API, database applications can access data stored in database management systems on a variety of computers even if each database management system uses a different data storage format and programming interface.

operator. A user defined in the system to receive notifications when specified audit messages are generated.

outbound mapping. A mapping process in which the system translates an application file format to EDI standard formats, so that documents can be sent to the partners. To translate outbound data, an import map and a system import map in the Gentran Server for Windows Application Integration subsystem are required.

outbox. A Gentran Server for Windows message queue that stores messages waiting to be processed by the Mailbox Server Manager.

Ρ

Partner Interface Process. In RosettaNet, a specification that defines business processes between trading partners.

payload. In a RosettaNet business message, the service content plus any file attachements. The payload is packaged together with the headers to form a complete RosettaNet Business Message.

pool. A collection of communications devices.

POP3. See Post Office Protocol Version 3.

positional file. See application file.

positional segment. A segment that contains fixed-length fields.

Post Office Protocol Version 3 (POP3). An application protocol that runs over TCP/IP and is used to retrieve electronic mail from a mail server.

preamble header. In a RosettaNet business message, an XML document that identifies the name and version of the standard with which the business message is compliant.

primary system controller. A system that controls the management and dispatching of processing requests within the Gentran Server for Windows system, manages the audit functionality, maintains status information for the system and controls all other system components.

print translation object. A translation object that organizes and formats the printout of EDI documents that are received from or sent to trading partners. The print translation object enables users to view the EDI document in an easily readable format.

process controller. A system that regulates the management and dispatching of processing requests within the system. It allows the system translation load to be distributed for fast and efficient throughput. Systems In a single workstation system, all three controllers (communications controller, process controller, and the primary system controller) reside on the same machine.

process control PIP. For RosettaNet, a Partner Interface Process (PIP) that is used to communicate process states outside the context of the process instance with which it is associated. For example, PIP 0A1 (Notification of Failure or NoF) is a process control PIP that is used to communicate an exception condition that occurs outside the normal message choreography of the subject PIP.

protocol. A set of rules controlling the communication and transfer of data between two or more devices or systems in a communication network.

Q

qualifier. A simple element that gives another generic compound or simple element a specific meaning. Qualifiers are used in mapping single or multiple occurrences. A qualifier can also be used to denote the namespace used to interpret the second part of the name, typically referred to as the ID.

R

real number. A number that contains a decimal point and is stored in fixed-point or floating-point format.

receipt acknowledgment. A positive business signal that acknowledges receipt of a message. The receipt acknowledgment is sent from the receiver of a valid business action message back to the sender. Validity of the message is determined by RNIF base-level validation or by additional validation requirements negotiated between trading partners.

record. A group of related data, words, or fields treated as a unit, such as one name, address, and telephone number.

relational condition. A condition that relates two fields such that one is invalid unless the other is present.

relational database. A database that can be perceived as a set of tables and manipulated in accordance with the relational model of data.

RosettaNet Business Message. The logical grouping of the preamble header, delivery header, service header, and payload (only for business action messages).

S

schema. A specification for the structure and semantics of some related data. The schema is used to validate or otherwise understand a group of data.

screen entry translation object. A translation object that provides a standardized format for entering an EDI document into the Document Editor for translation and transmission to trading partners. The screen entry translation object ensures that users enter all the data necessary to create the required EDI document.

secondary controller. A system used in non-clustered environments that can be used as a process controller, a communications controller, or both.

segment. An EDI logical unit of information. EDI segments are made up of data elements and composites. Segments are delimited; their components are separated by a delimiter.

separator character. A character that is used to distinguish groups, segments, and fields, and are fixed in the NCPDP Standard.

service. A networked application that is capable of participating in a RosettaNet conversation.

service content. The primary component of the payload of a RosettaNet Business Message, which is an XML document that represents the business content specified by a particular PIP. The Service Content plus any file attachments comprises the payload component of the RosettaNet Business Message.

service header. An XML document that identifies the PIP, the business activity, and action with which the business message is associated: the sending and receiving services, partners, and roles. It is packaged together with other headers and the payload to form a complete RosettaNet Business Message.

service message. A message exchanged between services.

simple data element. A single piece of information defined by the standards.

Simple Mail Transfer Protocol (SMTP). An Internet application protocol for transferring mail among users of the Internet.

single action activity.

SMTP. See Simple Mail Transfer Protocol.

solution partner. For RosettaNet, an organization or company that produces RNIF 2.0-compliant products.

spec. See specification.

specification (spec). A detailed document that provides a definitive description of a system for the purpose of developing or validating the system.

standard. A set of clearly defined and agreed-upon conventions for specific programming interfaces which have been approved by a formally constituted standards-setting body.

standard rule. A rule that allows access to functions necessary for mapping operations more complex than simple linking but less complex than extended rules. Standard rules are mutually exclusive (only one can be used on a particular field).

static text. Text that is always included in the screen entry or print translation object. Examples of static text include legends and column headings.

status. The processing stage of a document or interchange, indicated in the status box.

status bar. A section of an application window that defines information about a selection, command, or process. It also defines menu bar items as the user highlights each item, and indicates any current keyboard-initiated modes for typing (for example, CAP for the Caps Lock key or NUM for the Num Lock key).

string. A field or element that contains one or more printable characters.

synchronous. Pertaining to a mode of coordination of communication among distributed processes that requires request-reply pairs to occur within the bounds of a specified time interval in which the communication session is live.

syntax. The rules for the construction of a command or statement.

syntax token. A token that defines ranges of characters and/or numbers that are allowed to be used for a string-type element or field.

system browser. A browser that displays all mailbox messages matching predetermined criteria.

system data store.

- 1. In a single workstation system, a repository for all shared Gentran Server for Windows Data that reside on a single workstation.
- 2. In a distributed system, a repository of all shared Gentran Server for Windows data that might reside on any machine that is a file server to the machines in the Gentran Server for Windows system.

system import map. A map used by a translator to determine which trading relationship (established in Partner Editor) corresponds to each document in the application file, so the system knows which import map to use to process the document.

system import translation object. See system import map.

system translation object. A translation object that controls the creation and separation of interchanges, functional groups, and transaction sets. It is also used to generate and reconcile functional acknowledgements.

Т

TDF. See transaction data file.

third-party network. See value-added network.

TRADACOMS. The U.K. standards for EDI that are published by GS1 UK.

trading partner. A company, such as a manufacturer or a supplier, that agrees to exchange information using electronic data interchange, or an entity in an organization that sends and receives documents that are translated.

trading partner agreement. Information exchanged between trading partners that describes certain mutually agreed upon execution parameters and service level expectations that will be used when conducting business.

transaction. A group of data segments that have related data elements or fields. The group makes up a business document, such as a claim for services. The type of transaction is identified by a transaction code, such as B1 for Billing and N3 for Information Reporting Rebill.

transaction data file (TDF). A file that serves as a filter between document files and the Gentran Server for Windows translator. For outbound processing, data is imported from a TDF file and translated to EDI format using a TDF Import translation object. The data is then ready to be posted and sent to a trading partner. For inbound processing, EDI documents that are received by Gentran Server for Windows can be exported to a TDF-formatted file using a TDF Export translation object. This data file is then ready to be processed or converted to internal application files.

transaction set. The basic business document in EDI data. Transaction sets are enclosed in an envelope that separates one transaction set from another. Groups of transaction sets that are functionally related are enclosed in a functional group envelope.

translation object. A set of rules that instruct the translator how to convert a file from one format to another. Every function performed during translation requires a translation object. Translation objects are used to control all the functions of Gentran Server for Windows EDI translation.

translator. An engine that processes data for Gentran Server for Windows, the Application Integration subsystem, and the Forms Integration subsystem.

transmission. An entire file that is submitted electronically, unless it is a batch. A transmission includes telecommunication routing information, identification, and other information that applies to the entire collection of data.

transmission chain. A path an EDI communication could follow, including one company, one trading partner, and one or more network services.

transmission-level segment. A segment that occurs once in a transmitted batch file.

turnaround document. A document into which data elements from the source document have been automatically transferred using a turnaround map.

turnaround map. A series of instructions that the system uses to create a turnaround document (a logical response document to the source) from an inbound (source) document, by transferring data from the source document to elements in the target document (translation object).

two-action activity. A business activity comprised of the following message choreography: Partner A sends a business action to Partner B, Partner B sends a Receipt Acknowledgement signal back to Partner A, then later Partner B sends a response business action to Partner A, and Partner A sends a Receipt Acknowledgement back to Partner B. When these messages have been exchanged successfully between these trading partners, the activity is deemed complete. For RosettaNet, PIP 3A4 (Manage Purchase Order) is an example of a PIP that specifies a two-action activity.

U

UCS. See Uniform Communications Standard.

Uniform Communications Standard (UCS). A standard that is used by the grocery industry.

use code. A standard rule that matches an element or field against a predefined code table, specifies whether or not a compliance error is generated if the element or field does not contain one of the values in the code table, and stores a code's description in another element or field.

user interface client. Any machine in the Gentran Server for Windows system other than the primary system controller or secondary controller(s). The user interface clients provide the functions that are necessary to monitor and control the system.

user translation object. A translation object that controls data entry, importing, exporting, document turnaround, and creating printed reports.

V

validation. The process of comparing an entity against the specified requirements to determine if it meets each and every requirement.

value-added network (VAN). A network that provides services and capabilities to its subscribers that are not readily available on public networks. For example, a value-added network might offer protocol conversion or access to a specialized database.

VAN. See value-added network.

VICS. See Voluntary Inter-industry Communication Standards.

Voluntary Inter-industry Communication Standards (VICS). A standards-setting body for the retail industry. VICS is a subset of ANSI X12.

Χ

X12. A protocol from the American National Standards Institute (ANSI) for electronic data interchange (EDI).

XML. See Extensible Markup Language.

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