

GLOSSARY

This section of the Implementation Guide consists of a glossary of terms which may be encountered during a discussion of EDI. There are many terms that are unique to EDI and many terms, familiar in other fields, that have adopted a new meaning within the context of EDI. EDI jargon borrows heavily from other computer- and communications-based disciplines.

alpha character set — A character set that contains letters and may contain control and special characters *but* no numeric characters.

alphanumeric character set — A character set composed of letters and numeric characters and may contain control characters and special characters.

ANSI — American National Standards Institute: the organization set up to define, maintain, and coordinate standards in the United States. Data processing standards are supervised by committees which are named X followed by a number as an identifier; e.g., ASC X9 is the banking data encryption committee.

application program — A computer program written to process a particular function within a business; e.g., mortgage processing.

ASC X12 — Accredited Standards Committee X12, part of the ANSI organization.

ASCII — American Standard Code for Information Interchange. A standard binary notation for numbers, letters, and control characters. ASCII is the basic communication method of computing.

asynchronous — Transmission which is not related to a particular frequency; i.e., bits-per-second. A method of data transmission where each character sent is framed by a start-stop signal. Characteristically used in slow-speed devices like teleprinters. Also, generally used by microcomputers (PCs).

baud — A rate of transmission over a channel or circuit. The number of pulses which can be transmitted in a second is the baud rate. Thus, baud translates as *pulses per second* or *bits per second*. However, not every pulse measured represents data.

bisynchronous — A communication protocol that moves information in blocks of characters. It is used for high-speed continuous transmission. Sending and receiving devices are controlled by clock pulses which regulate the rate and timing of data flow. Bisync is a character-oriented means of transmission.

CCITT — Consultative Committee on International Telegraph and Telephone. A committee within the International Telecommunications Union (ITU) that concerns itself with the conventions which enable incompatible networks and computer systems to exchange data. CCITT operates within the broader standard issues established by the International Standards Organization (ISO).

character — A standard representation of a symbol, letter, number, or special character. Represented in a computer as a *byte*.

character set — A finite set of characters that is considered complete for a given purpose.

codifying — The process of detailing a new standard.

communication session — Some amount of time established and agreed upon by communicating computers, during which data is exchanged or interconnection takes place. The more complex the network, the more sophisticated this task becomes.

communications protocol — Establishes the parameters of communications between two computers. Includes baud rate, type of transmission, and parity setting.

compliance checking — In processing messages or transaction sets within an EDI system, an essential part of the software logic is to ensure that all transmissions contain the minimum mandatory information demanded by the EDI standard being used. Compliance checking does not necessarily mean that the document is complete or fully accurate but it does ensure rejection and identification of missing data elements or syntax errors. Hence compliance checking is the comparison of information sent by an EDI user against EDI standards, and the reporting back of anomalies.

conditional — In EDI standards, it indicates that the presence of a data segment/element is at the discretion of the sending party; i.e., used as required or based on mutual agreement, or is dependent on the value and/or presence of another data element in the transmission.

configuration — The specific arrangement of processor, storage devices, communication devices, and features within a computer system. It also includes the operating system type.

confirmation — A formal notice from a mailbox system or EDI server that a transmission sent to a trading partner's mailbox has successfully reached its intended mailbox or has been retrieved by the addressee.

connectivity — The ability of a particular computer or network architecture to be connected to and integrated with incompatible systems. For example, OSI and X.400 standards address connectivity.

data — A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human beings or by automatic means.

data dictionary — A table of terms within a specific application which needs to have a precise meaning for all users of the system.

data element — The smallest unit in an EDI transmission that can convey data. A unit of data for which the identification, description, and value representation have been specified. A data element is analogous to a **field** in non-EDI terms.

data element attribute — A defined characteristic of a data element.

data element separator (delimiter) — A character used to indicate that a new element of data has started. The most common separator is the *.

data element directory — A document that describes the attributes of all data elements within an EDI standard. The directory also includes a listing of identified, named, and described data element attributes, with specifications as to how the corresponding data element values shall be represented. It defines the data type, minimum and maximum length of the data, and, if appropriate, a list of acceptable values.

data element number — A unique reference number used to identify an element and make a cross-reference between elements.

data entry — The task of keying in data to a computer system from a source document.

data integrity — Condition of data in a whole, original, and uncorrupted form.

data mapping — A method by which information in one format is restructured to a different format.

data segment — A predefined and identified set of functionally related data elements that are identified by their sequential positions within the set. A segment starts with a segment tag and ends with a segment terminator. In non-EDI terms, a data segment is analogous to a **record**.

data segment directory — A document that provides the definitions and formats of

the data segments used to create a transaction set.

data segment identifier — A unique code consisting of one or more alphanumeric characters appearing as the first data element of each data segment. The code indicates the purpose of each segment.

data segment requirement designator — A character that indicates the mandatory/conditional status of a data segment.

data segment terminator — A special character inserted in a data segment immediately following the last data element of the segment. The ^N/_L is the data segment terminator.

direct link — Communication between two trading partners where the message is transmitted, usually through a modem, directly from one computer to the other computer.

DISA — Data Interchange Standards Association. The secretariat for the ANSI ASC X12 committee.

download — Transfer of information from a mainframe computer to a microcomputer.

EaDIplus — Easy access Data Interchange plus (EaDIplus). The Unisys EDI product that collects outgoing transactions from an application, performs data mapping, and delivers the files to another application. It is a mapping software application.

EBCDIC — Extended binary-coded-decimal interchange code. Used for computer storage and processing. An 8-bit code.

EDI — Electronic Data Interchange; the computer to computer exchange of standard business documentation in machine processable form.

EDIFACT — Electronic Document Interchange for Administration, Commerce, and Transportation; the ISO standards that will determine a unified international EDI standard.

EFT — Electronic funds transfer; the generic term for sending payment instructions over a computer network.

electronic envelope — A pair of data segments that designate a transaction set, a functional group, or an interchange.

electronic mailbox — A designated holding location for electronic messages. The mailbox can either be on the user's computer or, as is more common, on a third party network (VAN).

flat file — A data file in prescribed fixed-field format; e.g., ASCII or EBCDIC.

front end processor — The use of a microcomputer or minicomputer as a way to communicate with a mainframe computer. In EDI a front end processor would normally perform mapping, translation, and communication functions.

functional acknowledgment — An automatic response by the EDI server that a message, or batch of messages, has been received along with an indication of syntax errors.

functional group — A group of like transaction sets. Represents the transmission of a group of similar documents.

gateway — A point of interconnection: the open door between one electronic network and another. A gateway is the connection between two third party networks that allows messages from one to be communicated to the other.

header — Data at the front of an EDI message, inserted for initial recognition. The header contain a control number that must match the control number in the corresponding trailer.

hub — The pivotal center of a trading network.

IEA — Interchange control trailer; defines the end of an interchange of one or more functional groups and interchange-related control segments.

implementation — The activities involved in converting an idea into a working computer system. This includes everything from consultancy to hardware installation, integration, and operation.

incompatible — Applied to systems that cannot communicate with each other because of dissimilar documents, files with different formats, or differing communication protocols.

integration — The process of adapting systems and standards in order to overcome incompatibilities.

interchange — An electronic exchange between two business partners. The interchange is indicated by an interchange control header and an interchange control trailer. It is comparable to an outer envelope in paper transmissions.

interchange envelope — An envelope that contains the interchange header and trailer segments, control number, and number of functional groups in the interchange. One interchange envelope is required for each transmission.

interface — A shared boundary; a recognized and definable crossover point between two systems.

interpret — The reverse of translate; to use translation software to exactly match a system to the input requirements of a receiving computer system within an EDI community.

ISA — Interchange control header; identifies the beginning of an interchange of one or more functional groups and interchange-related control segments.

ISO — International Standards Organization; an organization with the UN to which all national and other standards-setting bodies defer. Encompasses the Open System Interconnect (OSI) seven-layer model that enables all networks and computers to communicate freely.

loop — A group of segments that are collectively repeated in a serial fashion up to a specified maximum number of times.

machine processable format — Data in designated fields so that the data can be automatically processed by a computer without interpretation or re-keying.

mailbox — a repository for messages in an electronic mail system or EDI server. Only authorized transmissions are allowed on a mailbox. The EDI server authenticates each transmission before depositing it in the appropriate "pigeonhole" of a mailbox.

mandatory — A statement that a data segment, data element, or component element must be used. Used in all translation processes.

mapping — Is the process of taking data from a company-specific format and fitting it to the EDI standard format (transaction set).

mapping software — Software that is designed to perform the mapping process. (See mapping definition.)

modem — A device that encodes information into an electronically transmittable form (Modulator) and restores it to the original analog form (DEModulator).

nested segment — A segment that directly relates to another segment in an identified and structured group of segments covering the requirements for a specific transmission.

NIST — U.S. National Institute of Standards and Technology.

node — An access point in a network.

optional data element/segment — Contains information that is not required by the standard but that could be included in the transaction at the discretion of the sender and receiver.

OSI — Open Systems Interconnection. (see ISO)

pass-through — Access of data to a network by traveling across another network via gateways.

protocol — The set of rules that define the way in which information can flow within a computer or communication system. A protocol comprises: syntax — commands and responses; semantics — the structured set of requests and actions permissible by each user; and timing — types of events and sequences.

reference designator — A unique alphanumeric indicator that specifies the position of a data element within a data segment.

security — A generic term used to describe the methods adopted to protect data from loss, corruption, and unauthorized access and retrieval. Methods used include passwords, ID numbers, authorization, verification of message/document type/mailbox address, and verification of line ID.

segment directory — A listing of identified, named, described, and specified segments in a transaction set.

SNA — Systems Network Architecture; an IBM proprietary communication protocol.

standards — The rules which are established to enable incompatible computers and communication systems to exchange information and to enable document types to be exchanged.

synchronous — A clock-controlled method of data transmission for use in high-speed circuits or networks.

table-driven program — A program in which the factors, variables, and data to be used are looked up from a table or matrix, or held on a file or in memory.

TDCC — Transportation Data Coordinating Committee; an early 1960s standards-setting committee.

telecommunication — The use of a network for the transmission of voice, data, or image.

third party network — A service provider that serves as a clearinghouse for EDI

messages. Will normally provide both mailbox and value added services such as translation of data from one format to another. Also known as a VAN.

trading partner — Any company or organization with whom another company (or organization) is doing business. EDI links trading partners electronically.

trailer — A segment that ends every envelope and provides a count of segments, transaction sets, or functional groups. The trailer contains a control number that must match the number contained in the header.

transaction set — In EDI standards, the name given to a complete trading document sent electronically. A transaction set is an EDI document.

translation software — Software used to take data from a vendor-specific flat file and into an EDI standard format.

upload — Transfer of data from a microcomputer to a mainframe.

validation — The process of checking whether a document is the correct type for a particular EDI system and whether it comes from and is going to an authorized user.

value added network (VAN) — A third party network performing services beyond the transmission of data. For example, VANs provide translation, training, and encryption services.

X.400 — An international standard for electronic messages in free format.