

Functional Acknowledgment Response Transaction Cycle
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61. Functional Acknowledgement Response

61.1 Business Description

- A 997 response is required on all transaction sets (except a 997).
- A 997 will include data element compliance checking without providing detail reporting (AK3, AK4 segments).

Per the trading partner agreement, a 997 will be returned on all transaction sets except for the 997. The purpose of the 997 is to acknowledge the receipt of a transaction set at the EDI translator/gateway. The translator will return a "+997" to the sender when an inbound transaction passes EDI edits. The translator will return a "-997" to the sender when the inbound transaction set does not meet the ANSI ASC X12 syntax rules.

The sender of the transaction set being acknowledged with a -997 is responsible for correcting any errors and resending the transaction set.

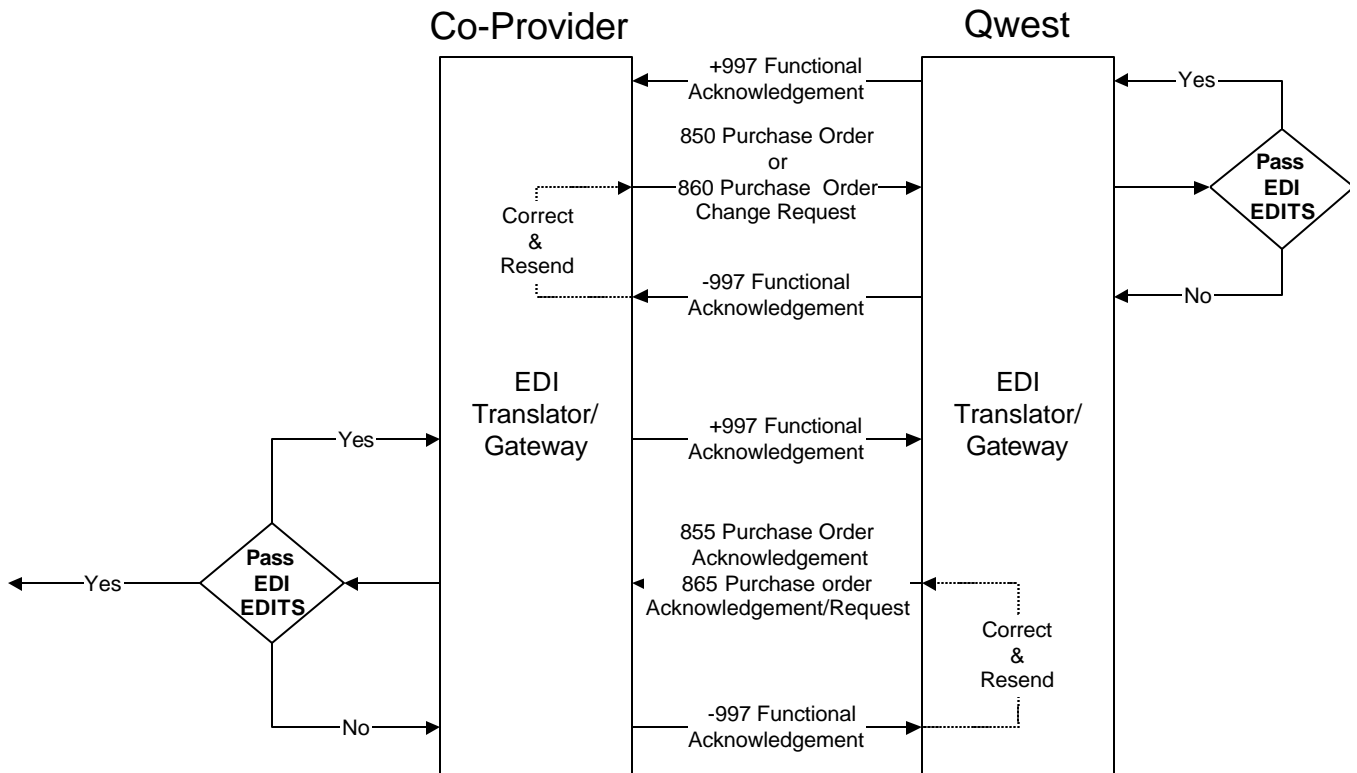
If Qwest has not received a 997 Functional Acknowledgement within 48 hours of sending a transaction from IMA EDI, the Qwest Technical Support Engineer will contact the CLEC to initiate an investigation to determine whether there is a problem on either the Qwest or CLEC side of the interface.

61.2 Business Model

A 997 Functional Acknowledgment will be returned on selected transaction sets. The purpose of the 997 is to acknowledge the receipt of a transaction set at the EDI translator/gateway. The translator will return a +997 to the sender when an inbound transaction passes EDI edits. The translator will return a -997 to the sender when the inbound transaction set does not meet the ANSI ASC X12 syntax rules.

- 997 response is required on all transaction sets.
- 997 will include data element compliance checking without providing detail reporting (AK3, AK4 segments)
- The Transactions in the following model represent all 850, 855, 860 and 865 Transaction sets.

997 Functional Acknowledgment



61.3 Developer Worksheets

See Appendix D - Developer Worksheets – PostOrder

61.4 Trading Partner Access Information

ORDERING FUNCTION	PRODUCT ID
Functional Acknowledgment	997

Order Submittal

The process begins with an EDI Trading Partner Agreement between Qwest and the Co-Provider. The order request is transmitted by the Co-Provider via the EDI 850/860 format. Qwest will translate and forward the data to the internal application system. The request may activate the following responses:

- Firm Order Confirmation (FOC) - an indicator to the Co-Provider that the order has been accepted and successfully entered into the Qwest Service Order Processor systems.
- Order Completion - notification returned to the Co-Provider when a service request is completed.
- Error/Jeopardy Notification - notification to the Co-Provider of Fatal and/or Non-Fatal errors detected manually or by the system. Fatal errors prevent the order from processing. Non-Fatal errors occur after the order has successfully processed through the IMA system. Jeopardy Notification will be issued if Qwest has a problem meeting the commitment on the local service request.

61.4.1 OVERVIEW: Qwest Specific Functional Group Envelope - Routing Information

Separate maps have been created per ordering function. EDI envelopes are used for the initiation of translation processing and to invoke the correct map. In order to optimize interactive performance, the Co-Provider and Qwest agree to include only one transaction set per Functional Group, and one Functional Group per Interchange.

The Interchange envelope provides the Interchange Sender ID and Receiver ID information for EDI transport to deliver the transmission for external routing. The Functional Group Envelope routes the enclosed transaction set's output after translation to a specific application or application interface.

The Application Sender's Code (GS02) and Receiver's Code (GS03) are the linkage from the Functional Group Envelope to the translator's trading partner profile/relationship database in which the proper mapping and routing information are stored. Also, the Functional Identifier Code (GS01) is the code identifying a group application related transaction sets.

61.4.2 ISA TABLE INFORMATION

ANSI X12 ISA and IEA definitions:

- The ISA segment is the Interchange Control Header.
Purpose: To start and identify an interchange of zero or more functional groups and interchange related control segments.
- The IEA segment is the Interchange Control Trailer.
Purpose: To define the end of an interchange of zero or more functional groups and interchange related control segments.
- The ISA12 is defined by the X-12 Standard used per transaction set. It will be '00402' for version 4020.

The Co-Provider and Qwest agree to the following routing information:

	SENT TO Qwest	RECEIVED FROM Qwest
ISA01	'00' (No Authorization information present)	'00' (No Authorization information present)
ISA02	Spaces (Authorization information)	Spaces (Authorization information)
ISA03	'00' (No Security information is present)	'00' (No Security information is present)
ISA04	Spaces (Security Information)	Spaces (Security information)
ISA05	Co-Provider TP qualifier	'ZZ' (Mutually Defined)
ISA06	Co-Provider TP ID	<u>Qwest TP ID</u>
ISA07	'ZZ' (Mutually Defined)	Co-Provider TP qualifier
ISA08	<u>Qwest TP ID</u>	Co-Provider TP ID
ISA09	Date of the interchange. YYMMDD	Date of the interchange. YYMMDD
ISA10	Time of the interchange. HHMM (24 Hour Clock)	Time of the interchange. HHMM (24 Hour Clock)
ISA11	'U' (U.S. EDI Community of ASC X-12, TDCC, and UCS)	'U' (U.S. EDI Community of ASC X-12, TDCC, and UCS)
ISA12	'00402' (Interchange Version ID)	'00402' (Interchange Version ID)
ISA13	Sender's translator assigned sequential control number	Sender's translator assigned sequential control number
ISA14	'0' (No acknowledgment requested)	'0' (No acknowledgment requested)
ISA15	'P' (Production data)	'P' (Production data)
ISA16	'0x1f' (Subelement Separator)	'0x1f' (Subelement Separator)

61.4.3 GS TABLE INFORMATION

ANSI X12 GS and GE segment definitions:

- The GS segment is the Functional Group Header.
Purpose: To indicate the beginning of a functional group and provide control information.
- The GE segment is the Functional Group Trailer.
Purpose: To indicate the end of a functional group and provide control information.

The Co-Provider and Qwest agree to the following routing information:

	SENT TO Qwest	RECEIVED FROM Qwest
GS01	SEE GS TABLE BELOW	SEE GS TABLE BELOW
GS02	<i>Co-Provider TP ID</i>	SEE GS TABLE BELOW
GS03	SEE GS TABLE BELOW	<i>Co-Provider TP ID</i>
GS04	<i>Date of the functional group. CCYYMMDD</i>	<i>Date of the functional group. CCYYMMDD</i>
GS05	<i>Time of the functional group. HHMM (24 hour clock)</i>	<i>Time of the functional group. HHMM (24 hour clock)</i>
GS06	<i>Sender's translator assigned sequential control number</i>	<i>Sender's translator assigned sequential control number</i>
GS07	'X' (Accredited Standards Committee X-12)	'X' (Accredited Standards Committee X-12)
GS08	'004020' (Version)	'004020' (Version)

GS Table

The Co-Provider and Qwest agree to the following routing information:

ORDERING FUNCTION	QWEST SEND/ RECEIVE	DOCUMENT	GS01 VALUE	GS02 VALUE	GS03 VALUE
Functional Acknowledgment	Send	997FA	FA	<i>NOTE 1 see below</i>	<i>Co-provider TP ID</i>
Functional Acknowledgment	Receive	997FA	FA	<i>Co-provider TP ID</i>	<i>NOTE 1 see below</i>

NOTE 1: This field will contain the appropriate application receivers' code.

61.4.4 MAPPING EXAMPLE AND DATA DICTIONARY ITEMS

Purchase Order (PO) Date

The Purchase Order (PO) Date is an ANSI ASC X12 mandatory field. The sender is expected to populate this field, Qwest however, will not map this date into the application file. For outbound transactions Qwest will populate this field with a date. This date is only used to satisfy ANSI ASC X12 standards and should not be used by the Co-Provider.

Time Code

The I-Chart time code fields of every transaction (D/T SENT, C/TSENT and CD/D/TSENT) is assumed as follows:

- Transaction set(s) originating from the Co-Provider - time code is Mountain Time.
- Transaction set(s) originating at Qwest – time code is Mountain Time.

Delimiters

The following delimiters will be used:

- Element Separator: HEX 7C = | (vertical bar or pipe)
- Sub-Element Separator: HEX 1F = (non-printable characters of "0x1f")
- Segment Separator: HEX 0A = linefeed

61.5 Mapping Examples

61.5.1 997 - 4020 FUNCTIONAL ACKNOWLEDGMENT

ST*997*TRAN SET CONTROL #

AK1*Functional Group Identifier Code*Group Control Number

AK2*TRAN Set Identifier Code*TRAN SET CONTROL #

AK5*TRAN Set Acknowledgment Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code

AK9*Functional Group Acknowledgment Code*Number of TRAN Sets Included*Number of Received TRAN Sets*Number of Accepted TRAN Sets*Functional Group Syntax Error Code*Functional Group Syntax Error Code*Functional Group Syntax Error Code*Functional Group Syntax Error Code

SE*Number of Included Segments*TRAN SET CONTROL #

61.6 Data Dictionary

61.6.1 997 Functional Acknowledgment

Functional Group ID=**FA**

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgments to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
M	0100	ST	Transaction Set Header	M	1		n1
M	0200	AK1	Functional Group Response Header	M	1		n2
			LOOP ID - AK2			999999	
	0300	AK2	Transaction Set Response Header	O	1		n3
M	0600	AK5	Transaction Set Response Trailer	M	1		
M	0700	AK9	Functional Group Response Trailer	M	1		
M	0800	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. These acknowledgments shall not be acknowledged, thereby preventing an endless cycle of acknowledgments of acknowledgments. Nor shall a Functional Acknowledgment be sent to report errors in a previous Functional Acknowledgment.
The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgment Transaction Sets. In preparing the functional group of acknowledgments, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgment functional group responds to only those functional groups from one application receiver's code to one application sender's code.
There is only one Functional Acknowledgment Transaction Set per acknowledged functional group.
2. AK1 is used to respond to the functional group header and to start the acknowledgment for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.
3. AK2 is used to start the acknowledgment of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

Segment: **ST** Transaction Set Header

Position: 0100

Loop:

Level:

Usage: Mandatory

Max Use: 1

Purpose: To indicate the start of a transaction set and to assign a control number

Syntax Notes:

Semantic Notes:

- 1 The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
- 2 The implementation convention reference (ST03) is used by the translation routines of the interchange partners to select the appropriate implementation convention to match the transaction set definition.

Comments:

Notes: ST*997*TRAN SET CONTROL #

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>		
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 997 Functional Acknowledgment	M	ID 3/3
M	ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Use to transmit a unique number assigned by the originator of the transaction set. This number may be system generated.	M	AN 4/9

Segment: **AK1** Functional Group Response Header
Position: 0200
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To start acknowledgment of a functional group
Syntax Notes:
Semantic Notes:

- 1 AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged.
- 2 AK102 is the functional group control number found in the GS segment in the functional group being acknowledged.

Comments:
Notes: AK1*Functional Group Identifier Code*Group Control Number

Data Element Summary

	Ref. Des.	Data Element	Name		
M	<u>Attributes</u> AK101	479	Functional Identifier Code	M	ID 2/2
			Code identifying a group of application related transaction sets		
			CA Purchase Order Change Acknowledgment/Request - Seller Initiated (865)		
			PC Purchase Order Change Request - Buyer Initiated (860)		
			PO Purchase Order (850)		
			PR Purchase Order Acknowledgment (855)		
M	AK102	28	Group Control Number	M	NO 1/9
			Assigned number originated and maintained by the sender		
			Use to identify the number cited in the GS06 of the functional group being acknowledged.		

Segment: **AK2** Transaction Set Response Header
Position: 0300
Loop: AK2 Optional
Level:
Usage: Optional
Max Use: 1
Purpose: To start acknowledgment of a single transaction set
Syntax Notes:
Semantic Notes:

- 1 AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged.
- 2 AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.

Comments:
Notes: AK2*TRAN Set Identifier Code*TRAN SET CONTROL #

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	
M	AK201	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 850 Purchase Order 855 Purchase Order Acknowledgment 860 Purchase Order Change Request - Buyer Initiated 865 Purchase Order Change Acknowledgment/Request - Seller Initiated	M ID 3/3
M	AK202	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Use to identify the number cited in the ST02 of the functional group being acknowledged.	M AN 4/9

Segment: **AK5** Transaction Set Response Trailer
Position: 0600
Loop: AK2 Optional
Level:
Usage: Mandatory
Max Use: 1
Purpose: To acknowledge acceptance or rejection and report errors in a transaction set

Syntax Notes:
Semantic Notes:
Comments:

Notes: AK5*TRAN Set Acknowledgment Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code*TRAN Set Syntax Error Code

Data Element Summary

Ref. Des.	Data Element	Name	
M	AK501	Transaction Set Acknowledgment Code	M ID 1/1
		Code indicating accept or reject condition based on the syntax editing of the transaction set	
		A Accepted	
		R Rejected	
	AK502	Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set	
		Use only when a transaction set is being rejected to identify the basis for rejection.	
		Use any code. Codes may also be used in the AK503-06 , but no individual code may be used more than once.	
		1 Transaction Set Not Supported	
		2 Transaction Set Trailer Missing	
		3 Transaction Set Control Number in Header and Trailer Do Not Match	
		4 Number of Included Segments Does Not Match Actual Count	
		5 One or More Segments in Error	
	AK503	Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set	
		See AK502 for values	
	AK504	Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set	
		See AK502 for values	
	AK505	Transaction Set Syntax Error Code	O ID 1/3
		Code indicating error found based on the syntax editing of a transaction set	
		See AK502 for values	
	AK506	Transaction Set Syntax Error Code	O ID 1/3

Code indicating error found based on the syntax editing of a transaction set
See AK502 for values

Segment: **AK9** Functional Group Response Trailer

Position: 0700

Loop:

Level:

Usage: Mandatory

Max Use: 1

Purpose: To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group

Syntax Notes:

Semantic Notes:

Comments: 1 If AK901 contains the value "A" or "E", then the transmitted functional group is accepted.

Notes: AK9*Functional Group Acknowledgment Code*Number of TRAN Sets Included*Number of Received TRANS Sets*Number of Accepted TRANS Sets*Functional Group Syntax Error Code*Functional Group Syntax Error Code*Functional Group Syntax Error Code*Functional Group Syntax Error Code*

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>		
M	AK901	715	Functional Group Acknowledge Code	M	ID 1/1
			Code indicating accept or reject condition based on the syntax editing of the functional group		
			A Accepted		
			R Rejected		
M	AK902	97	Number of Transaction Sets Included	M	NO 1/6
			Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element		
M	AK903	123	Number of Received Transaction Sets	M	NO 1/6
			Number of Transaction Sets received		
M	AK904	2	Number of Accepted Transaction Sets	M	NO 1/6
			Number of accepted Transaction Sets in a Functional Group		
	AK905	716	Functional Group Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of the functional group header and/or trailer		
			Use only when a functional group is being rejected to identify the basis for rejection.		
			Use any code. Codes may also be used in AK906-09, but no individual code may be used more than once.		
			3 Functional Group Trailer Missing		
			4 Group Control Number in the Functional Group Header and Trailer Do Not Agree		
			5 Number of Included Transaction Sets Does Not Match Actual Count		
			6 Group Control Number Violates Syntax		
	AK906	716	Functional Group Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of the functional		

		group header and/or trailer See AK905 for values		
AK907	716	Functional Group Syntax Error Code	O	ID 1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer See AK905 for values		
AK908	716	Functional Group Syntax Error Code	O	ID 1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer See AK905 for values		
AK909	716	Functional Group Syntax Error Code	O	ID 1/3
		Code indicating error found based on the syntax editing of the functional group header and/or trailer See AK905 for values		

Segment: **SE** Transaction Set Trailer
Position: 0800
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Syntax Notes:

Semantic Notes:

Comments:

1 SE is the last segment of each transaction set.

Notes:

SE*Number of Included Segments*TRAN SET CONTROL #

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>		
M	SE01	96	Number of Included Segments	M	NO 1/10
			Total number of segments included in a transaction set including ST and SE segments		
M	SE02	329	Transaction Set Control Number	M	AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set		