

EDI Introduction

Table of Contents

2. EDI INTRODUCTION	2
2.1 SCOPE.....	2
2.2 USE	3
2.3 DEVELOPER WORKSHEETS	4
2.3.1 <i>Usage Definitions</i>	6
2.4 CONTENT.....	7
2.5 EDI TRADING PARTNER ACCESS INFORMATION	8
2.5.1 <i>Performance and Ease of Maintenance</i>	8
2.5.2 <i>Functional Group Envelope - Routing Information</i>	8
2.5.3 <i>Other EDI Envelope Information</i>	8
2.5.4 <i>"997"</i>	9
2.5.5 <i>Test Data</i>	9
2.5.6 <i>Date/Time Reference</i>	9
2.5.7 <i>Exceptions</i>	9
2.5.8 <i>Delimiters</i>	9

2. EDI Introduction

2.1 Scope

The scope of this section is to define the parameters that will be used between a Co-Provider and Qwest on the following EDI topics:

- EDI business model or processes
- Business rules
- Data mapping models and references
- Specific Trading Partner Access Information

2.2 Use

Qwest and Co-Provider EDI developers will use this document to:

- Set up translation processes
- Guide data mapping
- Define transport and OSS interfaces
- Define end to end testing parameters

This document will be used by business process owners/administrators to define the underlying business functions supported in the EDI environment.

This document will be used by Industry Forum representatives to:

- Ensure industry EDI guidelines meet the needs of this EDI Specification Guidelines where possible.
- Submit change requests/data maintenance to Standards Organizations (such as ANSI ASC X12, TCIF, and OBF) when necessary.

2.3 Developer Worksheets

The Developer Worksheets contained in this document describe the Qwest business rules for the use of Pre-order, Order, and Post-order forms. Developer Worksheets are OBF-based and include:

- Field Number
- Field Name
- Field Usage
- Business Rule Description
- Field Length
- Field Characteristics
- Valid Values

The Developer Worksheets contain Query Fields that a CLEC will populate with data using a field's valid values. Qwest will then send back data in the Response Field that will match the value in the corresponding Query Field. Format within the developer worksheets (ie. bold) is intended for readability and does not impact EDI code or business processes.

In some cases the developer worksheets will not have the fields in sequential order due to OBF guidelines.

BAN formats on CSRs vary regionally. The following are the format rules per region:

Western Region BAN Format table

State	Alpha
Oregon	Z
Washington	Z

For example, a BAN = 503 NXX-XXX XXX would have a BTN = NPA **Z**XX-XXXX XXX

Central Region BAN format table

State	Alpha
Arizona	J
Colorado	K
Idaho	L
Montana	M
New Mexico	N
Utah	O
Wyoming	P

For example, a BAN = 520 NXX-XXXX-XXX would have a **GRP = J** 520-XXXX-XXX

For Eastern Region accounts, use the Eastern BAN Format table along with the Compressed NPA table to interpret Eastern region CSR BAN's.

Eastern Region BAN Format table

State	Alpha
North Dakota	R (Resale) Or Z (UNE)
South Dakota	R (Resale) Or Z (UNE)
Minnesota	R (Resale) Or Z (UNE)
Iowa	R (Resale) Or Z (UNE)
Nebraska	R (Resale) Or Z (UNE)

Compressed NPA table

State	NPA	Compressed NPA
Iowa	319	4
	515	5
	563	Z
	641	X
	712	6
Minnesota	218	1
	320	R
	507	3
	612	2
	651	S
	763	T
	952	U
Nebraska	308	8
	402	7
North Dakota	701	N
South Dakota	605	9

For example, a BAN = 320-NXX-XXXX XXX would have a BTN = **R ZXX-XXXX XXX**

2.3.1 Usage Definitions

The Developer Worksheets identify business rules for specific fields on a per-product basis. The following table defines usage values as presented for specific activity types:

Usage	Definition
N	Not Required – This field is not required for this activity, for this product. If the indicator is (N) for all activities, Qwest does not map the field and will return a –997 if populated.
R	Required – This field is required for this activity, for this product. The system shall enforce business rules and only allow a valid entry.
O	Optional – This field is optional for this activity, for this product. The system shall not enforce any business rules and should allow a valid entry.
C	Conditional – This field is required for this activity based upon a condition. The system shall enforce the business rule and require a valid entry when the condition is true.
P	Prohibited – Currently not used by Qwest. If this field is populated it will result in a fatal reject.
Note: If a field contains a usage value of 'R', 'C', or 'O', the field is mapped to an EDI segment.	

2.4 Content

The following information is documented in the remainder of this document:

- EDI Assumptions - outlines assumptions and constraints.
- Specific Trading Partner Access Information - lists the specific EDI-related agreements between the Co-Provider and Qwest, such as the EDI envelope, functional acknowledgment, and other topics.
- Business Model/EDI Transaction Process Flow - describes the interaction of each business function in terms of EDI process flow for pre-order and order for this release.
- Developer Worksheets – Define Qwest business rules.
- Mapping Examples/Data Models - provides mapping for all types of pre-order and orders transactions defined in this release.
- Data Dictionary - defines the use of each segment and data element for the 850, 855, 860, and 865 transaction sets for pre-order, order, and post-order transactions.

2.5 EDI Trading Partner Access Information

2.5.1 Performance and Ease of Maintenance

Co-Providers and Qwest will be using their own EDI translation environments. These environments may be either commercially available or developed to meet standard EDI business, development, maintenance, and operational practices.

One of the standard practices in EDI development is “Mapping.” Mapping allows developers to build tables or maps (instead of writing code) to translate application data to or from an EDI transaction set. A common error in map design is to combine too many business functions on the same map. The complexity of a map may not be an issue in a batch processing environment. However, in an interactive environment it is prudent to limit a map to no more than one business function. This practice may facilitate faster response times and alleviate map contention; different queries should not be competing for the same map. Additionally, a complex map takes longer to execute. A separation of maps also helps to isolate the impact that mapping changes may have to specific functions. For all of these reasons, the EDI specification guidelines recommend developing an individual map for each transaction function.

2.5.2 Functional Group Envelope - Routing Information

A standard practice is to utilize EDI envelopes to initiate translation processing and to invoke the correct map. An EDI transmission between trading partners is called an “Interchange.” Each Interchange may contain Functional Groups. Each Functional Group applies to a specific business function, defined by the specific application to which it applies. The content of a Functional Group is one or more transaction sets. To optimize interactive performance, Qwest requires only one transaction set per Functional Group, and one Functional Group per Interchange and one Interchange per file.

The responsibility of the Interchange envelope is to provide Interchange Sender ID and Receiver ID information necessary for the EDI transport to deliver the transmission. 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 link from the Functional Group Envelope to the translator’s trading partner profile/relationship database in which the proper mapping and routing information are stored. Specific routing information is provided in the individual transactions sections contained in this document.

2.5.3 Other EDI Envelope Information

EDI envelope information is divided into two data segments: ISA and GS. The ISA segment identifies sender and receiver information, much like the address sections of a paper envelope. The GS segment describes the business transactions requested or performed.

ISA and GS data segments are defined as follows:

- For incoming transactions to Qwest: Co-Provider to Qwest
- For Qwest outgoing: Qwest to Co-Provider

SI segments, as represented in the mapping examples, require exact syntax for the SI segments containing one pair of a qualifier to a valid value for accurate translation. A SI segment that has multiple pairs of qualifiers and valid values does not require exact position placement.

2.5.4 “997”

Rules for functional acknowledgment for receipt of transactions are as follows:

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

2.5.5 Test Data

Qwest and each Co-Provider will mutually agree to test case definition and test data development in support of Co-Provider testing for all EDI interfaces.

2.5.6 Date/Time Reference

The D/T SENT field (DTM*097 on the Header) of every transaction set is assumed as follows:

- If the transaction set is originated from the Co-Provider, the Co-Provider will use a consistent time zone.
- If the transaction set is originated from Qwest, the time indicated is Mountain time.

2.5.7 Exceptions

Transaction sets 850, 855, 860 and 865 for order are used with the following exceptions:

- For 855 transactions, the maximum use of the SLN has been changed to > 1

Note: There are situations where a backend system will return a blank in a data field. An example is for address validation query (AVQ) exact match response with supplemental data the N1|DT|SUPPMATCH loop may be returned as "empty" if the building, room, or floor is blank in the Qwest back-end system. This is a valid response.

Qwest does not use the ANSI X12 4020 version of the envelope, therefore the ISA11 field reflects an earlier version as documented for each product.

2.5.8 Delimiters

For readability purposes, the Mapping Examples included in this document are shown using an asterisk as the element delimiter. This is illustrative only. The delimiters and separators to be used in actual trading are:

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