



# XML Introduction

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# 1 XML Introduction

## 1.1 XML over Soap

Qwest will be utilizing Standard SOAP protocol (XML over SOAP). The use of digital certificates will be used for secure transport to and from Qwest. Qwest will issue one digital certificate per Trading Partner.

The Qwest WSDL(s) for the current production release can be found at:

Order: <https://ixgprod.ordering.qwest.com/imaOrder/order?WSDL>

Pre-order: <https://ixgprod.ordering.qwest.com/imaPreOrder/preOrder?WSDL>

Post Order: <https://ixgprod.notices.qwest.com/imaPostOrder/postOrder?WSDL>

## 1.2 XML Information

Unique schemas have been created for each pre-order transaction, each order form, and each post order notification.

A Work Order schema has been created to incorporate the individual order forms required for an LSR. It will be utilized by all products. Qwest will determine the product received based on information and forms contained in the work order. In order to optimize interactive performance, the CLEC and Qwest agree to include only one LSR/Pre-Order request per submittal to the Qwest XML Gateway.

When submitting transactions to Qwest it is not necessary to send empty XML elements (tags). If empty elements are sent they will not cause an error unless the field is required (or conditional with conditions met) per the business rules found in the Developer Worksheets (Appendices A – D).

### 1.2.1 Synchronous & Asynchronous Processing

The Qwest IMA XML Interface utilizes both synchronous and asynchronous processing. Synchronous responses from Qwest include all pre-order responses as well as acknowledgments for orders received. Qwest requires synchronous acknowledgments for Pushed notices, which are sent individually.

Asynchronous transactions include all Post-Order Notices as well as the acknowledgements for Pulled Notices and.

NOTE: Multiple notices may be requested/returned for a single Pull Notice Request. Multiple Acknowledgments for Pulled Notices can be sent to Qwest in a single file. More information on the Push and Pull Notice process can be found in Chapter 16.

Qwest will wait 30 seconds for the synchronous response and transaction processing before timing out and closing the connection.

### 1.2.2 Trading Partner Access Information

Qwest will expect the CLEC to include the following items on all transactions: (1) a Trading Partner ID (TPID); (2) the IMA Release number; and, (3) the CCNA. This information will be used to authenticate the transactions. If this information is not included or does not match what Qwest has configured, the transaction will result in a SOAP fault.

Developer Worksheets Usage Definitions

Usage	Definition
N	Not Required – This field is not required for the indicated product/activity. If the indicator is (N) for all activities, The field will be marked as "Not Used by Qwest". This field is an OBF field that Qwest does not utilize and will receive a soap fault if sent in on the Purchase Order, due to a schema validation failure.
R	Required – This field is required for the indicated product/activity. The system shall enforce business rules and only allow a Valid entry.
O	Optional - This field is optional for the indicated product/activity. The system shall not enforce any business rules and should allow a valid entry.
C	Conditional - This field is required for the indicated product/activity based upon a condition. The system shall enforce the business rule and require a valid entry when the condition is true. A field may also be considered Conditional if <a href="#">Qwest applies an edit to the field when the field is populated.</a>
P	Prohibited - If this field is populated for the indicated product/activity it will result in a fatal reject.  In addition, if a field is removed from a release it will be marked as Prohibited for that release until the previous release has sunset. This is to support multi-release WSDL compatibility. The subsequent release will remove the field from the DWS and the WSDL.
<b>Note:</b> If a field contains a usage value of 'R', 'C', or 'O', the field is included in an XML schema	

### 1.2.3 Qwest Specific Fields

Order fields that are specific to the Qwest implementation were added to selected OBF forms and are indicated by an alpha following the field number i.e., EU-25a (AHN). These fields are not defined in the OBF form for the corresponding LSOG issue.

### 1.2.4 Date/Time Reference

#### Time Code

The Developer Worksheet time code fields of every transaction (i.e., D/T SENT) are assumed as follows:

- Transactions originating from the CLEC - time code should be consistent with your time zone.
- Transactions originating at Qwest - time codes are Mountain Time.

## 1.2.5 XML Schema/WSDL Element Names

In the majority of cases, Qwest XML Schema element names are consistent with the Developer Worksheet field names. Exceptions are indicated on the Developer Worksheets i.e., PN-30 LHFID - XML: LFID.

## 2 Miscellaneous IMA Information

### Thoroughfare Values

For IMA, Qwest adheres to the following table for street types. IMA follows postal standards and are not region specific.

Qwest Street Type (Abbreviation)	Postal Standard Equivalent (Abbreviation)	English Equivalent
ALLEY	ALY	Alley
ALLY	ALY	Alley
ALY	ALY	Alley
ANEX	ANX	Annex
ANNEX	ANX	Annex
ANNX	ANX	Annex
ANX	ANX	Annex
AV	AVE	Avenue
AVE	AVE	Avenue
AVEN	AVE	Avenue
AVENU	AVE	Avenue
AVENUE	AVE	Avenue
AVN	AVE	Avenue
AVNUE	AVE	Avenue
BAYOO	BYU	Bayou
BAYOU	BYU	Bayou
BEND	BND	Bend
BG	BURG	Burg
BGS	BURGS	Burg
BLF	BLF	Bluff
BLFS	BLFS	Bluffs
BLUF	BLF	Bluff
BLUFF	BLF	Bluff
BLUFFS	BLFS	Bluffs
BLVD	BLVD	Boulevard
BND	BND	Bend

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
BOT	BOTTOM	Bottom
BOTTM	BOTTOM	Bottom
BOTTOM	BOTTOM	Bottom
BOUL	BLVD	Boulevard
BOULEVARD	BLVD	Boulevard
BOULV	BLVD	Boulevard
BR	BRANCH	Branch
BRANCH	BRANCH	Branch
BRDGE	BRIDGE	Bridge
BRG	BRIDGE	Bridge
BRIDGE	BRIDGE	Bridge
BRK	BRK	Brook
BRKS	BRKS	Brooks
BRNCH	BRANCH	Branch
BROOK	BRK	Brook
BROOKS	BRKS	Brooks
BTM	BOTTOM	Bottom
BURG	BURG	Burg
BURGS	BURGS	Burgs
BV	BLVD	Boulevard
BYP	BYP	Bypass
BYPA	BYP	Bypass
BYPAS	BYP	Bypass
BYPASS	BYP	Bypass
BYPS	BYP	Bypass
BYU	BYU	Bayou
CAMP	CAMP	Camp
CAUSEWAY	CSWY	Causeway

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
CAUSWAY	CSWY	Causeway
CEN	CENTER	Center
CENT	CENTER	Center
CENTER	CENTER	Center
CENTERS	CENTERS	Centers
CENTR	CENTER	Center
CENTRE	CENTRE	Centre
CIR	CIRCLE	Circle
CIRC	CIRCLE	Circle
CIRCL	CIRCLE	Circle
CIRCLE	CIRCLE	Circle
CIRCLES	CIRCLES	Circles
CIRS	CIRCLES	Circles
CK	CRK	Creek
CMP	CAMP	Camp
CNTER	CENTER	Center
CNTR	CENTER	Center
COR	CORNER	Corner
CORNER	CORNER	Corner
CORNERS	CORNERS	Corners
CORS	CORNERS	Corners
COURSE	CRSE	Course
COURT	CT	Court
COURTS	CTS	Courts
COVE	CV	Cove

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
COVES	CVS	Coves
CP	CAMP	Camp
CR	CRK	Creek
CRCL	CIRCLE	Circle
CRCLE	CIRCLE	Circle
CREEK	CRK	Creek
CREST	CRST	Crest
CRK	CRK	Creek
CROSSING	CROSSING	Crossing
CROSSROAD	CROSSROAD	Crossroad
CRSE	CRSE	Course
CRSSING	CROSSING	Crossing
CRSSNG	CROSSING	Crossing
CRST	CRST	Crest
CRT	CT	Court
CSWY	CSWY	Causeway
CT	CT	Court
CTR	CENTER	Center
CTRS	CENTERS	Centers
CTS	CTS	Courts
CURV	CURV	Curve
CURVE	CURV	Curve
CV	CV	Cove
CVS	CVS	Coves
DIV	DV	Divide
DIVIDE	DV	Divide
DR	DR	Drive
DRIV	DR	Drive
DRIVE	DR	Drive

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
DRIVES	DRS	Drives
DRV	DR	Drive
DV	DV	Divide
DVD	DV	Divide
EST	EST	Estate
ESTATE	EST	Estate
ESTATES	ESTS	Estates
ESTS	ESTS	Estates
EXN	EXT	Extension
EXP	EXPY	Expressway
EXPR	EXPY	Expressway
EXPRESS	EXPY	Expressway
EXPRESSWAY	EXPY	Expressway
EXPW	EXPY	Expressway
EXPY	EXPY	Expressway
EXT	EXT	Extension
EXTENSION	EXT	Extension
EXTENSIONS	EXTS	Extensions
EXTN	EXT	Extension
EXTNSN	EXT	Extension
EXTS	EXTS	Extensions
FALL	FALL	Fall
FERRY	FERRY	Ferry
FORD	FRD	Ford
FORDS	FRDS	Fords
FORG	FRG	Forge
FORGE	FRG	Forge

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
FORGES	FRGS	Forges
FORK	FRK	Fork
FORKS	FRKS	Forks
FRD	FRD	Ford
FRDS	FRDS	Fords
FREEWAY	FWY	Freeway
FREEWY	FWY	Freeway
FRG	FRG	Forge
FRGS	FRGS	Forges
FRK	FRK	Fork
FRKS	FRKS	Forks
FRRY	FERRY	Ferry
FRWAY	FWY	Freeway
FRWY	FWY	Freeway
FRY	FERRY	Ferry
FWY	FWY	Freeway
GATEWAY	GTWY	Gateway
GATEWY	GTWY	Gateway
GATWAY	GTWY	Gateway
GROV	GRV	Grove
GROVE	GRV	Grove
GROVES	GRVS	Groves
GRV	GRV	Grove
GRVS	GRVS	Groves
GTWAY	GTWY	Gateway
GTWY	GTWY	Gateway
HAVEN	HVN	Haven

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
HAVN	HVN	Haven
HEIGHT	HTS	Heights
HEIGHTS	HTS	Heights
HGTS	HTS	Heights
HIGHWAY	HWY	Highway
HIGHWY	HWY	Highway
HIWAY	HWY	Highway
HIWY	HWY	Highway
HT	HTS	Heights
HTS	HTS	Heights
HVN	HVN	Haven
HWAY	HWY	Highway
HWY	HWY	Highway
HY	HWY	Highway
INLET	INLT	Inlet
INLT	INLT	Inlet
ISLE	ISLE	Isle
ISLES	ISLES	Isles
JCT	JCT	Junction
JCTION	JCT	Junction
JCTN	JCT	Junction
JCTNS	JCTS	Junctions
JCTS	JCTS	Junctions
JUNCTION	JCT	Junction
JUNCTIONS	JCTS	Junctions
JUNCTN	JCT	Junction
JUNCTON	JCT	Junction

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
KEY	KY	Key
KEYS	KYS	Keys
KNL	KNL	Knoll
KNLS	KNLS	Knolls
KNOL	KNL	Knoll
KNOLL	KNL	Knoll
KNOLLS	KNLS	Knolls
KY	KY	Key
KYS	KYS	Keys
LA	LN	Lane
LAND	LAND	Land
LANDING	LNDG	Landing
LANE	LN	Lane
LANES	LN	Lane
LGT	LGT	Light
LGTS	LGTS	Lights
LIGHT	LGT	Light
LIGHTS	LGTS	Lights
LLEE	ALY	Alley
LN	LN	Lane
LNDG	LNDG	Landing
LNDNG	LNDG	Landing
LOOP	LOOP	Loop
LOOPS	LOOP	Loop
MALL	MALL	Mall
MANOR	MNR	Manor
MANORS	MNRS	Manors
MDW	MDW	Meadow
MDWS	MDWS	Meadows

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
MEADOW	MDW	Meadow
MEADOWS	MDWS	Meadows
MEDOWS	MDWS	Meadows
MEWS	MEWS	Mews
MISSION	MSN	Mission
MISSN	MSN	Mission
MNR	MNR	Manor
MNRS	MNRS	Manors
MNT	MT	Mount
MNTAIN	MTN	Mountain
MNTN	MTN	Mountain
MNTNS	MTNS	Mountains
MOTORWAY	MTWY	Motorway
MOUNT	MT	Mount
MOUNTAIN	MTN	Mountain
MOUNTAINS	MTNS	Mountains
MOUNTIN	MTN	Mountain
MSN	MSN	Mission
MSSN	MSN	Mission
MT	MT	Mount
MTIN	MTN	Mountain
MTN	MTN	Mountain
MTWY	MTWY	Motorway
NCK	NCK	Neck
NECK	NCK	Neck

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
OPAS	OPAS	Overpass
ORCH	ORCH	Orchard
ORCHARD	ORCH	Orchard
ORCHRD	ORCH	Orchard
OVAL	OVAL	Oval
OVERPASS	OPAS	Overpass
OVL	OVAL	Oval
PARK	PARK	Park
PARKS	PARK	Park
PARKWAY	PKWY	Parkway
PARKWAYS	PKWYS	Parkways
PARKWY	PKWY	Parkway
PASS	PASS	Pass
PASSAGE	PSGE	Passage
PATH	PATH	Path
PATHS	PATH	Path
PIKE	PIKE	Pike
PIKES	PIKES	Pikes
PK	PARK	Park
PKWAY	PKWY	Parkway
PKWY	PKWY	Parkway
PKWYS	PKWYS	Parkways
PKY	PKWY	Parkway
PL	PL	Place
PLACE	PL	Place
PLAIN	PLN	Plain

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
PLAINES	PLNS	Plaines
PLAINS	PLNS	Plaines
PLAZA	PLZ	Plaza
PLN	PLN	Plain
PLNS	PLNS	Plaines
PLZ	PLZ	Plaza
PLZA	PLZ	Plaza
POINT	PT	Point
POINTS	PTS	Points
PORT	PRT	Port
PORTS	PRTS	Ports
PRK	PARK	Park
PRT	PRT	Port
PRTS	PRTS	Ports
PSGE	PSGE	Passage
PT	PT	Point
PTS	PTS	Points
RAMP	RAMP	Ramp
RANCH	RNCH	Ranch
RANCHES	RNCHS	Ranches
RAPID	RPD	Rapid
RAPIDS	RPDS	Rapids
RD	RD	Road
RDG	RDG	Ridge
RDGE	RDG	Ridge
RDGS	RDGS	Ridges
RDS	RDS	Roads
REST	RST	Rest
RIDGE	RDG	Ridge
RIDGES	RDGS	Ridges
RNCH	RNCH	Ranch

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
RNCHS	RNCHS	Ranches
ROAD	RD	Road
ROADS	RDS	Roads
ROUTE	RTE	Route
ROW	ROW	Row
RPD	RPD	Rapid
RPDS	RPDS	Rapids
RST	RST	Rest
RTE	RTE	Route
RUE	RUE	Rue
RUN	RUN	Run
SHL	SHOAL	Shoal
SHLS	SHOALS	Shoals
SHOAL	SHOAL	Shoal
SHOALS	SHOALS	Shoals
SHOAR	SHR	Shore
SHOARS	SHRS	Shores
SHORE	SHR	Shore
SHORES	SHRS	Shores
SHR	SHR	Shore
SHRS	SHRS	Shores
SKWY	SKWY	Skyway
SKYWAY	SKWY	Skyway
SPUR	SPUR	Spur
SPURS	SPURS	Spurs
SQ	SQ	Square
SQR	SQ	Square
SQRE	SQ	Square
SQRS	SQS	Squares

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
SQU	SQ	Square
SQUARE	SQ	Square
SQUARES	SQS	Squares
ST	ST	Street
STA	STATN	Station
STATION	STATN	Station
STATN	STATN	Station
STN	STATN	Station
STR	ST	Street
STRA	STATN	Station
STREAM	STRM	Stream
STREET	ST	Street
STREETS	STS	Streets
STREME	STRM	Stream
STRM	STRM	Stream
STRT	ST	Street
STS	STS	Streets
TER	TER	Terrace
TERR	TER	Terrace
TERRACE	TER	Terrace
THROUGHWAY	TRWY	Throughway
TPK	TPKE	Turnpike
TPKE	TPKE	Turnpike
TR	TRL	Trail
TRACE	TRCE	Trace

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
TRACES	TRCES	Traces
TRACK	TRAK	Track
TRACKS	TRAKS	Tracks
TRAFFICWAY	TRFCWY	Trafficway
TRAIL	TRL	Trail
TRAILS	TRLS	Trails
TRAK	TRAK	Track
TRCE	TRCE	Trace
TRFCWY	TRFCWY	Trafficway
TRK	TRAK	Track
TRKS	TRAKS	Tracks
TRL	TRL	Trail
TRLS	TRLS	Trails
TRNPK	TPKE	Turnpike
TRPK	TPKE	Turnpike
TRWY	TRWY	Throughway
TUNEL	TUNL	Tunnel
TUNL	TUNL	Tunnel
TUNLS	TUNLS	Tunnels
TUNNEL	TUNL	Tunnel
TUNNELS	TUNLS	Tunnels
TUNNL	TUNL	Tunnel
TURNPIKE	TPKE	Turnpike
TURNPK	TPKE	Turnpike
UNDERPASS	UPAS	Underpass

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
UPAS	UPAS	Underpass
VDCT	VIADCT	Viaduct
VIA	VIADCT	Viaduct
VIADCT	VIADCT	Viaduct
VIADUCT	VIADCT	Viaduct
VIEW	VW	View
VIEWS	VWS	Views
VILL	VLG	Village
VILLAG	VLG	Village
VILLAGE	VLG	Village
VILLAGES	VLGS	Villages
VILLE	VL	Ville
VILLG	VLG	Village
VILLIAGE	VLG	Village
VIS	VISTA	Vista
VIST	VISTA	Vista
VISTA	VISTA	Vista
VL	VL	Ville
VLG	VLG	Village
VLGS	VLGS	Villages
VST	VISTA	Vista
VSTA	VISTA	Vista
VW	VW	View
VWS	VWS	Views
WALK	WALK	Walk
WALKS	WALKS	Walks
WALL	WALL	Wall
WAY	WAY	Way
WAYS	WAYS	Ways

<b>Qwest Street Type (Abbreviation)</b>	<b>Postal Standard Equivalent (Abbreviation)</b>	<b>English Equivalent</b>
WY	WAY	Way
WYS	WAYS	Ways
XING	CROSSING	Crossing
XRD	CROSSROAD	Crossroad