

# **C.H. Robinson Worldwide**

## **MESSAGE IMPLEMENTATION GUIDE**

### **TECHNICAL SPECIFICATION FOR XML STATUS UPDATE MESSAGE**

## Document Information

Document Name: MESSAGE IMPLEMENTATION GUIDE  
 TECHNICAL SPECIFICATION FOR XML STATUS UPDATE MESSAGE

Owned By: C.H. Robinson  
 14900 Charlson Rd.  
 Eden Prairie, MN 55347  
 United States of America

Document Version No: 1.0

Prepared By: C.H. Robinson Carrier Team N.A.

Document Version Date: May 1, 2017

Preparation Date: May 1, 2017

## Revision History

Version	Date	Author	Changes
1.0	05-01-2017	Jacob Oliver	Create Document

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# 1. Introduction

This document is intended for business and technical personnel engaged in establishing an electronic connection with C.H. Robinson for the purpose of transmitting a XML EDI **Status Update message** to a received Load Booking. Separate Implementation Guides have been created for the Booking and Response EDI messages.

The documents describes the XML schema’s from which **three** types of standard messages can be created and communicated between C.H. Robinson and a Carrier

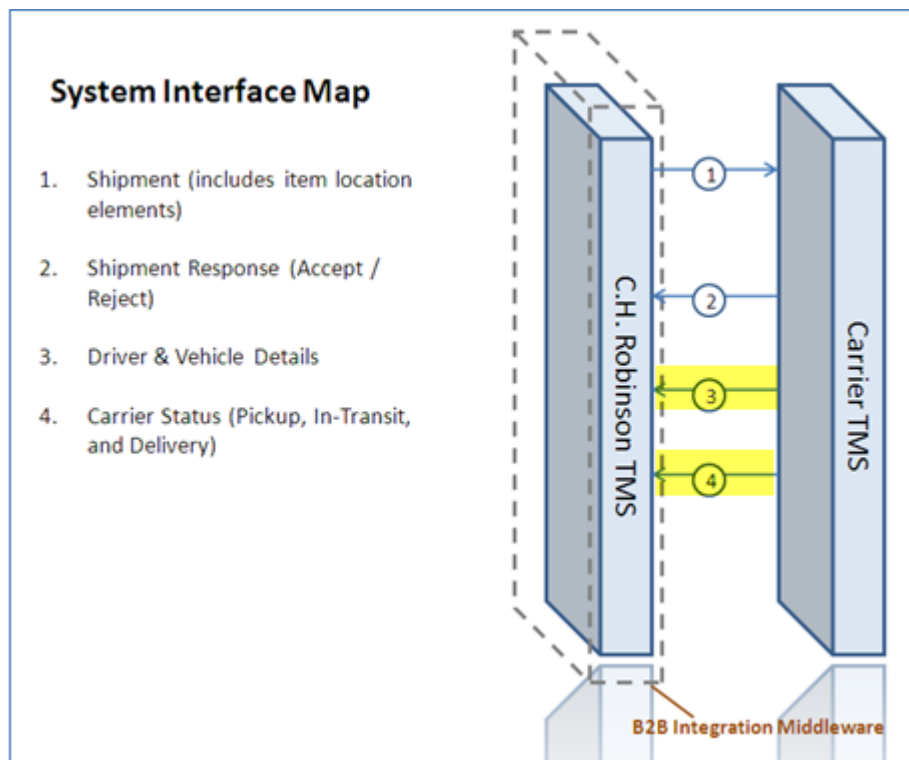
## 1. Outbound Message (C.H. Robinson to Carrier):

- **Load Booking (Call-Off)** – C.H. Robinson sends a load booking to a carrier. This booking will include all information as to the pick-up and delivery of the load, required dates, rates, and item details.

## 2. Inbound Message (Carrier to C.H. Robinson):

- **Response to Load Booking** – The carrier sends C.H. Robinson a response to the received load booking (accept or decline).
- **Shipment Status Updates** – The carrier sends C.H. Robinson updates to provide up-to-date status and reference information on in-transit shipments.

These messages can be visualized in the below diagram. The diagram below outlines a typical EDI transmission scenario between C.H. Robinson and a carrier.



1. C.H. Robinson will send a Load booking to a carrier
2. A carrier will either accept or reject the booking
3. After acceptance a carrier will send driver and vehicle details (e.g. license plate information)
4. During transit up to the final delivery a carrier will send multiple status updates related to the location and status of the shipment.

## 2. XML Structure

- The message specification is broken down into sections for ease of explanation. In practice the entire message will be transmitted as one.
- In the below diagrams anything with a min of zero is considered optional, and anything with a min of one or more is considered mandatory.
- Min (Use) and Max (Use) refers to the minimum and maximum occurrence of the field it describes
- Min Children and Max Children refers to the minimum and maximum sub-elements linked to the field it describes
- Required describes if the element is mandatory (M), Optional (O) or Conditional (C)
- Length refers to the maximum length of the field it describes
- Type describes what kind of data a certain element holds (Alpha Numeric (AN) or Numeric (N) and its subtype (String, Integer, Decimal or Boolean)).

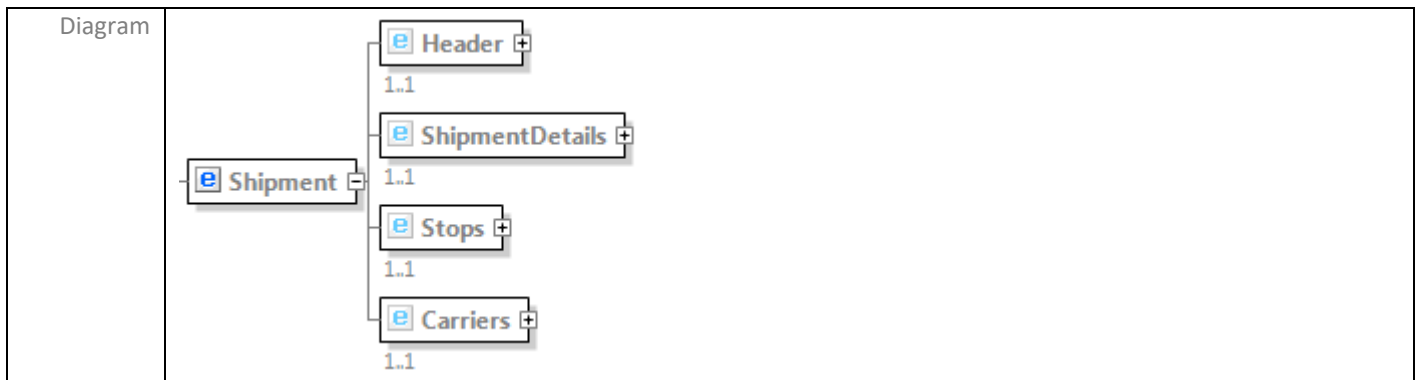
### 3. Status Update Message

The response and status update messages share the same basic XML schema. The type of message determines which elements are mandatory or optional. Any differences in application of these elements will be highlighted.

#### 3.1 Shipment

The **Shipment** Element is the root element for the XML message

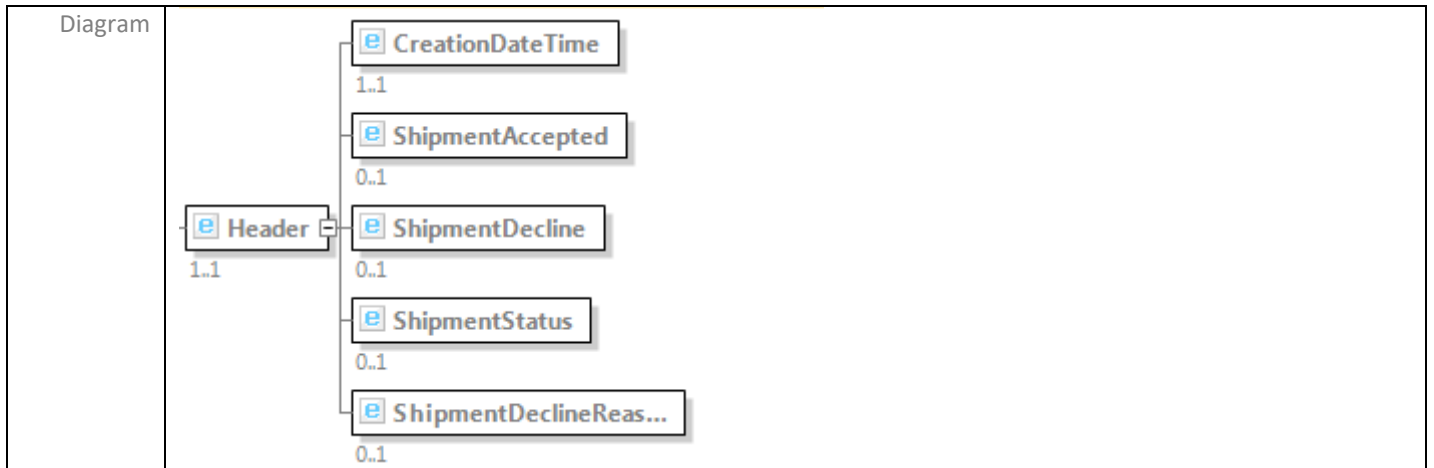
Element	Header									
Properties	Min Use	1	Max Use	1	Min Children	3	Max Children	4	Required	M



### 3.2 Header

The **Header** part of the message indicates the type of message and the date and time of creation. There are three message action types. Only one of the three types should be set to “1”, if shown then the others should show “0”.

Element	Header									
Properties	Min Use	1	Max Use	1	Min Children	1	Max Children	5	Required	M



Sample	<pre> &lt;Header&gt;   &lt;CreationDateTime&gt;20170424070521&lt;/CreationDateTime&gt;   &lt;ShipmentAccepted&gt;0&lt;/ShipmentAccepted&gt;   &lt;ShipmentDecline&gt;0&lt;/ShipmentDecline&gt;   &lt;ShipmentStatus&gt;1&lt;/ShipmentStatus&gt; &lt;/Header&gt;                 </pre>
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Sub Element	Min	Max	Required	Type	Length	Description	Example
CreationDateTime	1	1	M	AN (String)	14	Document Creation Date & Time (Format: YYYYMMDDHHMMSS)	20170424070521
ShipmentAccepted	1	1	C	N (String)	1	If Value is "1" Flag indicates Shipment Accepted. If value is 0 then data element is not mandatory (Valid values: 1 or 0)	0
ShipmentDecline	1	1	C	N (String)	1	If Value is "1" Flag indicates Shipment Declined. If value is 0 then data element is not mandatory (Valid values: 1 or 0)	0
ShipmentStatus	1	1	C	N (String)	1	If Value is "1" Flag indicates Shipment Status Update. If value is 0 then data element is not mandatory (Valid values: 1 or 0)	1
ShipmentDeclineReason	0	1	O	AN (String)	10	Reason codes when ShipmentDecline is "1"	N/A

Notes	
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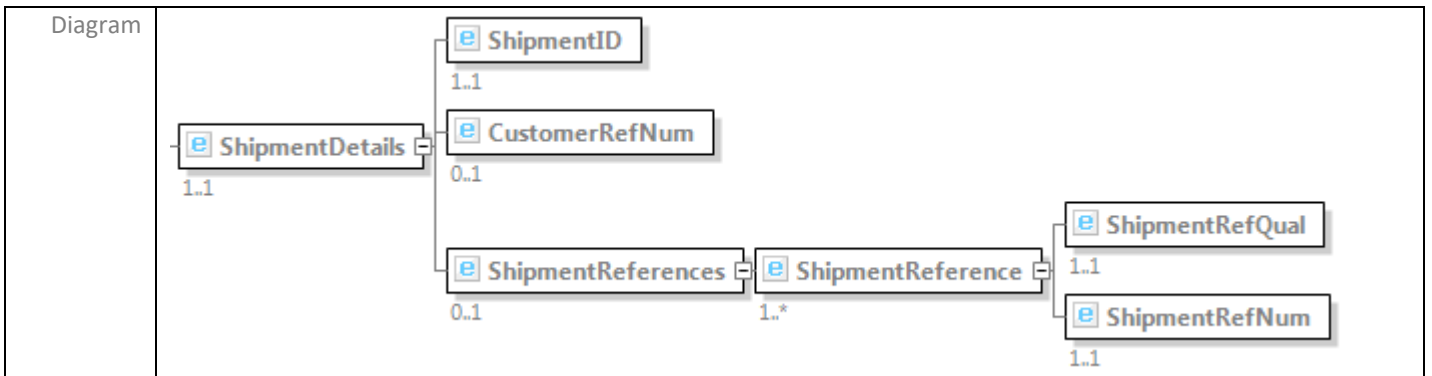
### 3.3 Shipment Details

The **Shipment Details** Element of the message contains basic information about the shipment.

Element	ShipmentDetails									
Properties	Min Use	1	Max Use	1	Min Children	1	Max Children	3	Required	M

Element	ShipmentReferences									
Properties	Min Use	0	Max Use	1	Min Children	0	Max Children	∞	Required	O

Element	ShipmentReference									
Properties	Min Use	0	Max Use	∞	Min Children	2	Max Children	2	Required	O



Sample	XML
	<pre> &lt;ShipmentDetails&gt;   &lt;ShipmentID&gt;230690022&lt;/ShipmentID&gt;   &lt;CustomerRefNum&gt;B12324567&lt;/CustomerRefNum&gt;   &lt;ShipmentReferences&gt;     &lt;ShipmentReference&gt;       &lt;ShipmentRefQual&gt;BOL&lt;/ShipmentRefQual&gt;       &lt;ShipmentRefNum&gt;12324567&lt;/ShipmentRefNum&gt;     &lt;/ShipmentReference&gt;   &lt;/ShipmentReferences&gt; &lt;/ShipmentDetails&gt;           </pre>

Sub Element	Min	Max	Required	Type	Length	Description	Example
ShipmentID	1	1	M	N (String)	9	C.H. Robinson Load Number	230690022
CustomerRefNum	0	1	O	AN (String)	256	Customer reference number	B1234567
ShipmentRefQual	1	1	M	AN (String)	256	Qualifier explaining what the ShipmentRefNum is pertaining to.	BOL
ShipmentRefNum	1	1	M	AN (String)	256	Specific reference number carrier wants to communicate	12324567

**\*\*The ShipmentID MUST be sent, and must match the ShipmentID that was sent in the Tender to ensure we can match the update to the correct load\*\***

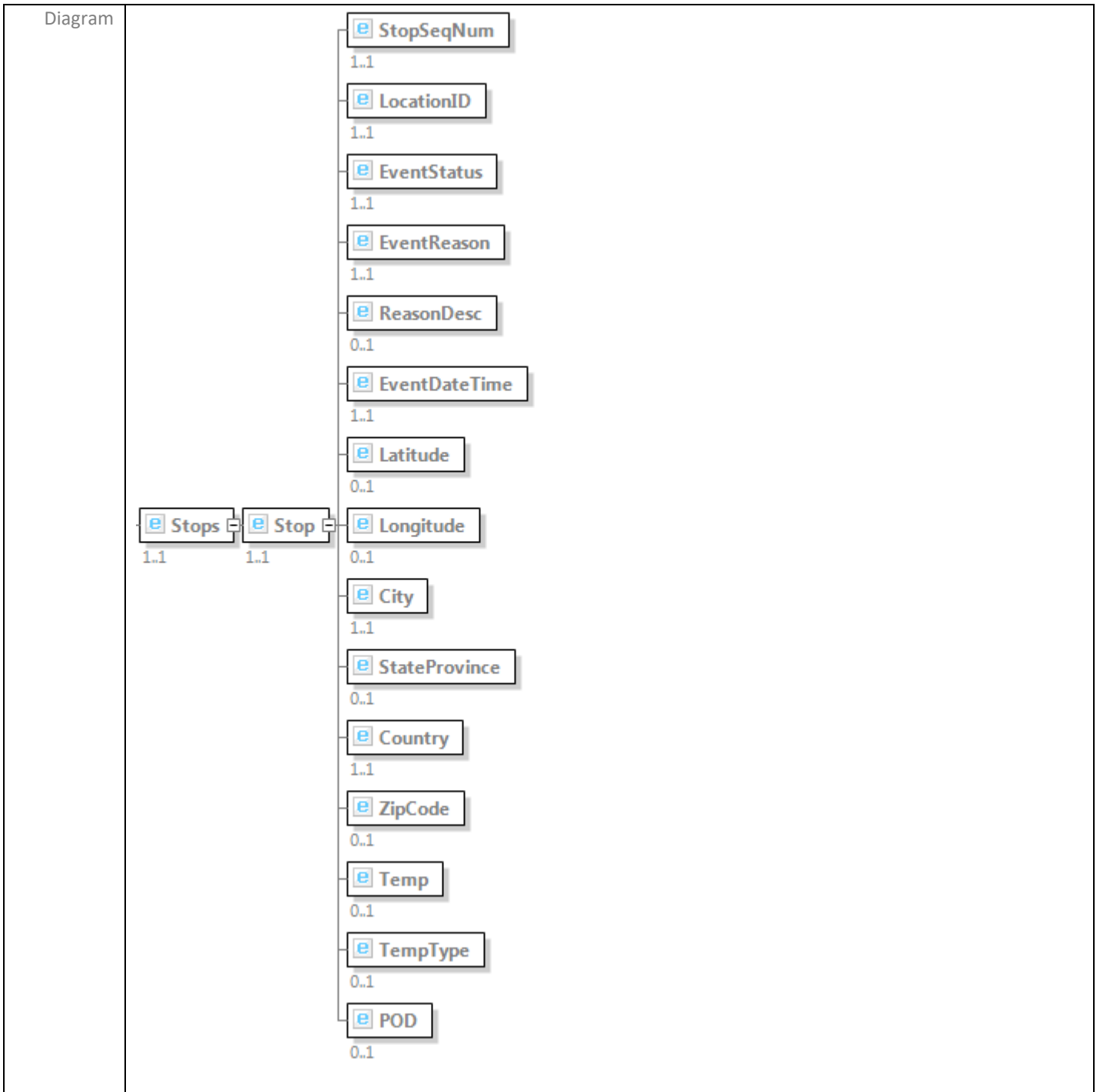


### 3.4 Stops

The **Stops** segment is present only in status update messages, it is not required in response (accept or reject) messages.

Element	Stops										
Properties	Min Use	1	Max Use	1	Min Children	0	Max Children	1	Required	M	

Element	Stop										
Properties	Min Use	1	Max Use	∞	Min Children	8	Max Children	15	Required	M	



Sample	<pre> &lt;Stops&gt;   &lt;Stop&gt;     &lt;StopSeqNum&gt;0&lt;/StopSeqNum&gt;     &lt;LocationID&gt;W14156948&lt;/LocationID&gt;     &lt;EventStatus&gt;AP&lt;/EventStatus&gt;     &lt;EventReason&gt;NS&lt;/EventReason&gt;     &lt;ReasonDesc&gt;bad weather&lt;/ReasonDesc&gt;     &lt;EventDateTime&gt;20170421120000&lt;/EventDateTime&gt;     &lt;Latitude&gt;32.30642&lt;/Latitude&gt;     &lt;Longitude&gt;-122.61458&lt;/Longitude&gt;     &lt;City&gt;Edina&lt;/City&gt;     &lt;StateProvince&gt;MN&lt;/StateProvince&gt;     &lt;Country&gt;US&lt;/Country&gt;     &lt;ZipCode&gt;55345&lt;/ZipCode&gt;     &lt;Temp&gt;0&lt;/Temp&gt;     &lt;TempType&gt;C&lt;/TempType&gt;     &lt;POD&gt;John Smith&lt;/POD&gt;   &lt;/Stop&gt; &lt;/Stops&gt;         </pre>
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Item	Min	Max	Required	Type	Length	Description	Example
StopSeqNum	1	1	M	N (Integer)	2	Stop unique ID (this is the stop number send on the OB Booking XML)	0
LocationID	1	1	M	AN (String)	50	CHR Location ID	W90222948
EventStatus	1	1	M	AN (String)	2	Event Status Codes	AP
EventReason	1	1	C	AN (String)	2	Event Reason Codes. Used to expand on Event Status if needed. (NS = nothing to report)	NS
ReasonDesc	0	1	O	AN (String)	256	Allow carrier to add extra information relevant to the stop	Bad weather
EventDateTime	1	1	C	AN (String)	14	Date Time of Event (Format: YYYYMMDDHHMMSS)	20170421120000
Latitude	0	1	C	N (Decimal)	30	Latitude sent in decimal format. Include if known.	32.30642
Longitude	0	1	C	N (Decimal)	30	Longitude sent in decimal format. Include if known.	-122.61458
City	1	1	M	AN (String)	60	Location City	Edina
StateProvince	0	1	C	AN (String)	60	State or Province Code the City is located (if applicable)	MN
Country	1	1	M	AN (String)	2	Location Country	UK
ZipCode	0	1	C	AN (String)	10	Zip or Postal Code	SL3 0QR
Temp	0	1	C	N (String)	6	If temperature controlled load provide temperature reading	0
TempType	0	1	C	AN (String)	1	Standard that the temperature reading is in (F vs. C)	C
POD	0	1	C	AN (String)	256	Name of person who signed the proof of delivery (would only be on delivery 214)	John Smith

Notes	<ul style="list-style-type: none"><li>• <b>EventStatus</b> Codes are listed in spreadsheet in Appendix C</li><li>• <b>EventReason</b> Codes are listed in spreadsheet in Appendix C</li></ul>
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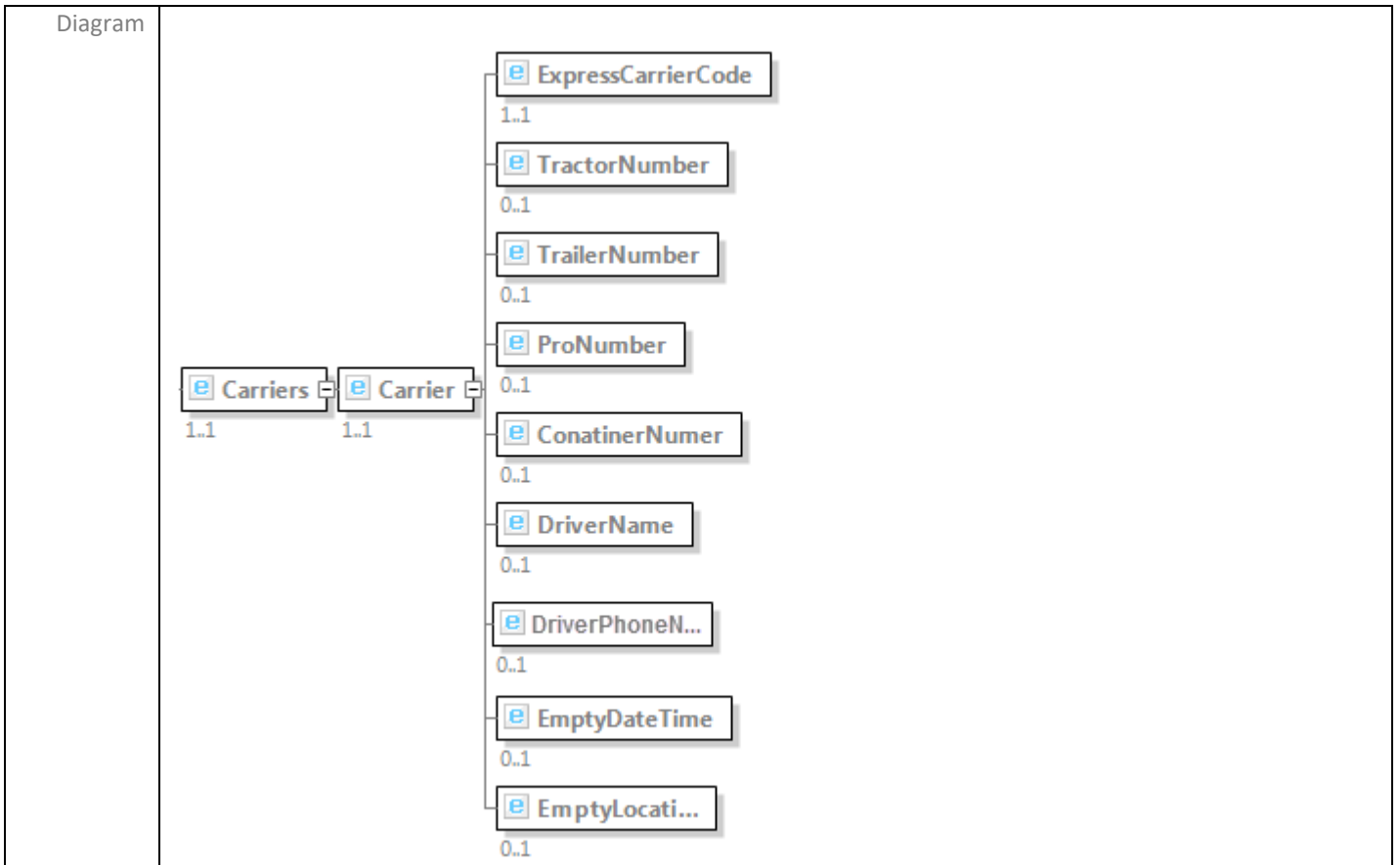
**\*\*The StopSegnum MUST be sent to ensure we can match the update to the correct load\*\***

### 3.4 Carriers

This Element contains **carrier** specific information. Optionally the carrier can transmit Driver, Vehicle and shipment reference (PRO Number) information. If provided, the PRO Number will be printed on the self-bill (if applicable).

Element	Carriers									
Properties	Min Use	1	Max Use	1	Min Children	1	Max Children	1	Required	Yes

Element	Carrier									
Properties	Min Use	1	Max Use	1	Min Children	1	Max Children	8	Required	Yes



Sample	XML
	<pre>           &lt;Carriers&gt;             &lt;Carrier&gt;               &lt;ExpressCarrierCode&gt;T9370971&lt;/ExpressCarrierCode&gt;               &lt;TractorNumber&gt;4AN1451&lt;/TractorNumber&gt;               &lt;TrailerNumber&gt;6P15205&lt;/TrailerNumber&gt;               &lt;ProNumber&gt;0378/704/0132/001&lt;/ProNumber&gt;               &lt;ConatinerNumer&gt;HBSU12345678&lt;/ConatinerNumer&gt;               &lt;DriverName&gt;Jane Smith&lt;/DriverName&gt;               &lt;DriverPhoneNumber&gt;5128675309&lt;/ DriverPhoneNumber &gt;               &lt;EmptyDateTime&gt;20170424070521&lt;/EmptyDateTime&gt;               &lt;EmptyLocation&gt;Edina&lt;/EmptyLocation&gt;             &lt;/Carrier&gt;           &lt;/Carriers&gt;         </pre>

Sub Element	Min	Max	Required	Type	Length	Description	Example
ExpressCarrierCode	1	1	M	AN (String)	20	C.H. Robinson Carrier ID	T9014293

TractorNumber	0	1	O	AN (String)	25	Tractor Registration Number	4AN1451
TrailerNumber	0	1	O	AN (String)	25	Trailer Registration Number	6P15205
ProNumber	0	1	O	AN (String)	50	Carrier Shipment Reference Number	0378/704/0132/001
ContainerNumber	0	1	O	AN (String)	50	Container number	HBSU12345678
DriverName	0	1	O	AN (String)	50	Driver Name	Jane Smith
DriverPhoneNumber	0	1	O	AN (String)	20	Driver Phone Number	5128675309
EmptyDateTime	0	1	O	AN (String)	14	Actual Date & Time of Vehicle now available (Format: YYYYMMDDHHMMSS)	20170424070521
EmptyLocation	0	1	O	AN (String)	60	Actual Location of Vehicle now available	Edina

**\*\*The ExpressCarrierCode MUST be sent to ensure we can match the update to the correct load\*\***

## 4. Useful Contacts

For questions send an email to [CIT\\_Carrier\\_BA@chrobinson.com](mailto:CIT_Carrier_BA@chrobinson.com)

There will be a separate and more specific contact when a project is created to implement the XML trading between partners and CH Robinson.

## 5. Appendices

### Appendix A: Inbound XML EDI Schema



GlobalXML\_StatusUpdate.xsd

### Appendix B: Example Messages

#### Outbound Messages

- 1A: Booking for a simple shipment (1 Pickup and 1 Delivery)



1A\_Booking\_Request\_Simple.xml

- 1B: Booking for a complex shipment (1 Pickup and 3 Deliveries)



1B\_Booking\_Request\_MultiStop.xml

#### Inbound Messages

- 2A: A Response (Accept) message to the above mentioned 1A



2A\_IB\_Response\_Accept.xml

- 2B: A Response (Decline) message to the above mentioned 1B



2B\_IB\_Response\_Decline.xml

- 3A: A Status Update (Vehicle Information) to the above mentioned 1A



3A\_IB\_Status\_Vehicle\_Information.xml

- 3B: A Status Update (Arrived and Departed Pickup Location) to the above mentioned 1A



3B\_IB\_Status\_Arrived-at-Pickup.xml



3B\_IB\_Status\_Departed-Pickup.xml

- 3C: A Status Update (Arrived and Departed Destination) to the above mentioned 1A



3C\_IB\_Status\_Arrived-at-Destination.xml



3C\_IB\_Status\_Departed-Destination.xml

- 4A: A Status Update (Shipment Delayed) to the above mentioned 1A



4A\_IB\_Status\_ShipmentDelay.xml

## Appendix C: Code Lists

- Event Status



EventCodes.xlsx

- Event Reason



ReasonCodes.xlsx