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# Your Guide to Embedding Aramex's Tracking API

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|---|---|---|
| **Version** | **Change** | **Effective Date** |
| **1** | **Document Creation** | **June 2011** |
| **2** | **New Sections**<br>- Add the security certificate **(page 4)**<br>- Add testing credentials **(page 14)** | **1st of January 2013** |

# Getting Started: Shipping API

The Aramex Shipping API (Application Programming Interface) allows your system to communicate directly with our shipping and tracking systems over the internet. Aramex Shipping API provides you with a wide range of functionalities which enables your systems and applications to integrate directly with Aramex's systems in an easy and automated way. The APIs are built based on SOAP (Simple Object Access Protocol) providing a secure channel of communication, as all web calls are made through secured HTTPS.

A SOAP message is an ordinary XML document containing the following elements:

- An Envelope element that identifies the XML document as a SOAP message (required)
- A Header element containing header information (optional)
- A Body element containing call and response information (required)
- A Fault element containing errors and status information (optional)

# Security Certificate:

To connect securely through HTTPs to our testing website the certificate in the following link will need to be downloaded, a manual is also present through the below link to guide the user through the download and installation of the certificate:

http://www.aramex.com/PKI/trust.aspx

This certificate should be imported and trusted on the machine or user account used to connect to our testing website.

**Testing URL:**

http://ws.dev.aramex.net/shippingapi/tracking/service_1_0.svc

**Live URL:**

http://ws.aramex.net/shippingapi/tracking/service_1_0.svc

# Tracking API

## Introduction

This document contains a complete guide on how to use the Tracking API, which could be a helpful after-service tool that we offer to complete the Shipment creation service in the Shipping Services API. The Tracking API is part of Aramex Shipping APIs, which allows you to track existing shipments and obtain their updates and latest status.

## Features:

The Tracking API provides these features:

**Security:**

Two levels of security are provided for each method:

a) Each submitted request should contain a valid email address and password which are obtained by registering your email address on aramex.com. This is used for authorizing the request.
b) Each submitted request should contain a valid account number and a valid PIN code. This is used to authenticate and verify the identity of the customer.

**Encryption:**

By using HTTPS all transmissions are insured to be encrypted.

**Simple and easy to use:**

Shipment Updates are easily obtained by simply adding the AWB (Airway bill) numbers to be retrieved.

**Flexibility:**

Users can choose to only obtain the latest update for any shipment.

## Main Functionalities:

**Tracking API**

Allows users to track the status and obtain updates of existing shipments.

- The Ability to add several AWB (Airway bill) numbers to the list and to retrieve their data.

# Using Shipment Tracking API: How does it Work?

- The Tracking API uses a Web Service Definition Language (WSDL) that can be downloaded at http://www.aramex.com/developers/aramex-apis/41882/Tracking-API, enabling developers to add reference to the web service in their code.
- The user must be registered at http://www.aramex.com with a valid user name and password.
- Sample Codes are available in VB.NET, C# and PHP, downloadable at http://www.aramex.com/developers/aramex-apis/41882/Tracking-API.

Users are free to use any development tool provided these tools support the WSDL and messages conform to the standards and structure required. However the preferred programming languages for client implementations are:

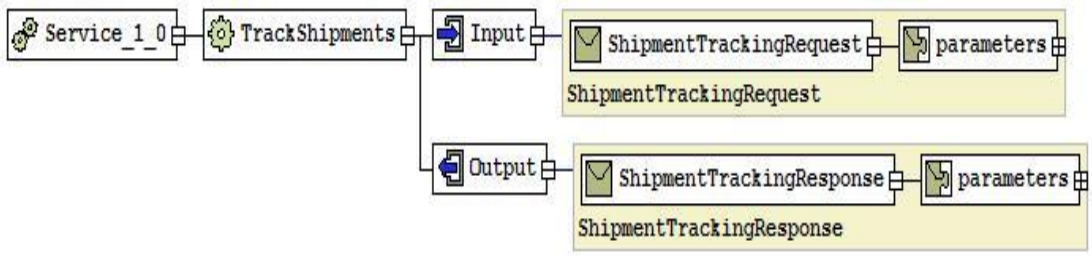
- Visual Basic 2005 (with VB.NET framework 2) or later
- C#
- PHP

# Xml Structure Diagrams:

XML requests or reply messages have to be constructed. The Tables below show the structure, element, child element, semantics as well as the validation conditions in the Tracking API XML.

## Tracking Service

**Table 1: Tracking service**

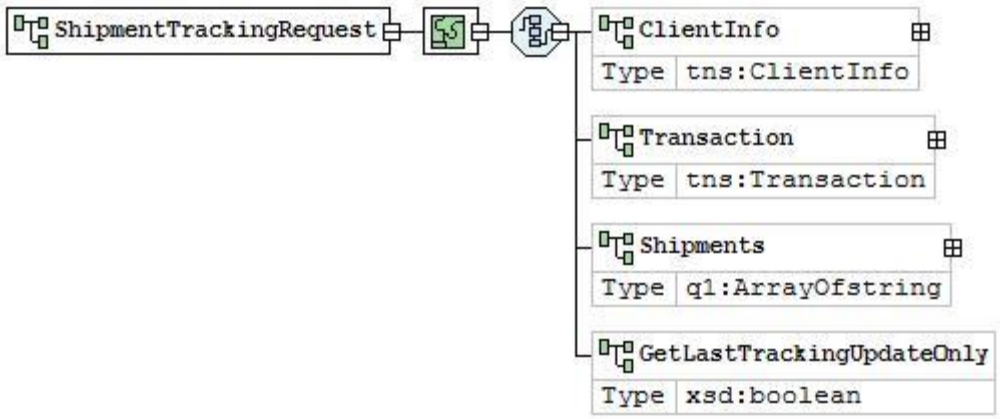
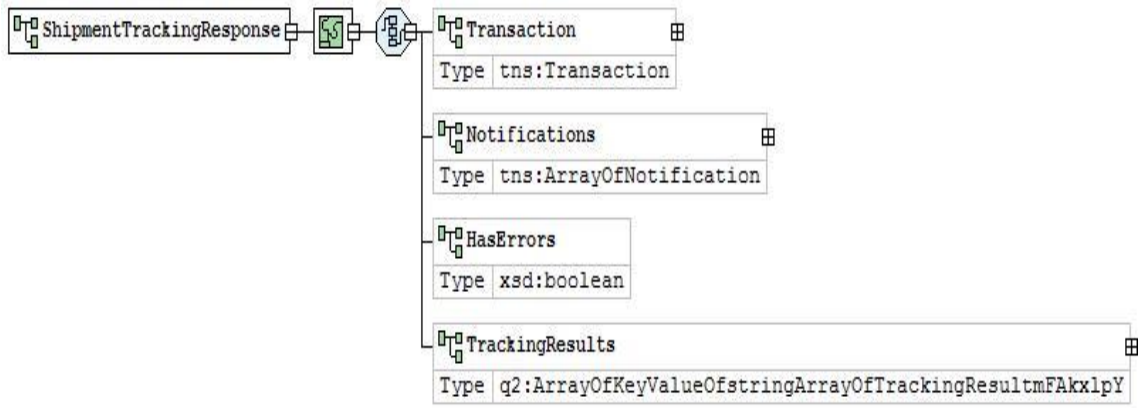
| Diagram | Description |
|---|---|
|  **Fig.1. Tracking WSDL Service** | This WSDL Service includes the Shipment tracking service method.<br><br>Shipment Tracking method involves an Input (request) and Output (response), along with their designed parameters. |

# 1 Methods:

This is a general outlook on the method diagrams, their overall description and requirements.

## 1.1 Shipment tracking method:

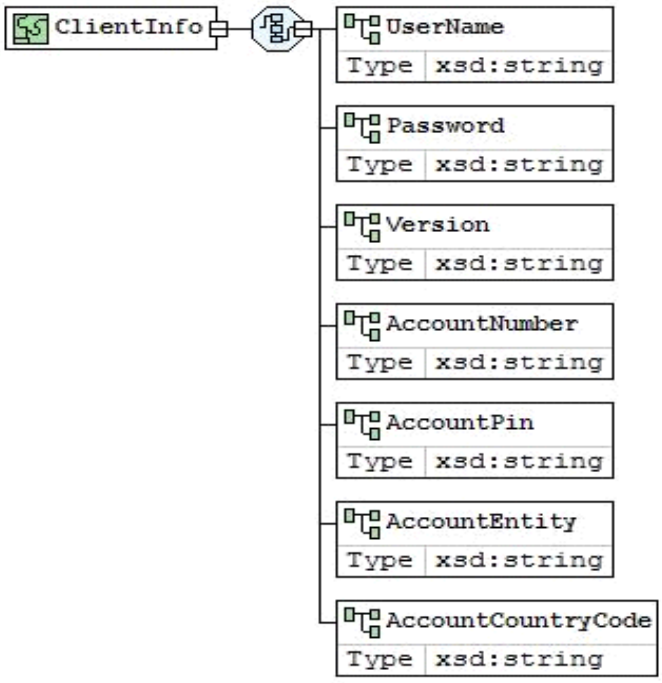
**Table 2: Shipment Tracking Request & Response**

| Diagram | Description |
|---|---|
|  | **Shipment Tracking Request:** This method allows the user to track an existing shipment's updates and latest status.<br><br>The **required** nodes to be filled are: ClientInfo and Shipments. |
| **Fig.2. Shipment Tracking Structure Request** | |
|  | **Shipment Tracking Response:** Obtains tracking updates for specified AWBs.<br><br>The Transaction Parameter is sent as filled in the request for identification purposes. |
| **Fig.3. Shipment Tracking Structure Response** | |

## 1.2 Request Elements

These elements present the request structure of the Tracking API (Shipment Tracking).

**Table 3: Shipment Tracking Request Elements**

| Diagram | Description |
|---|---|
|  **Fig.4. Client Info Structure Diagram** | **Client Info:**<br><br>All the child elements are mandatory and need to be filled.<br><br>**The user name and password are validated to allow access to the service.**<br><br>Version element, is the Version of the API the customer is using, which needs to be specified in the request.<br><br>Account Number, Pin, Entity and Country Code are all needed to verify the user's account.<br><br>For a more detailed description of the elements refer to Table 5. |

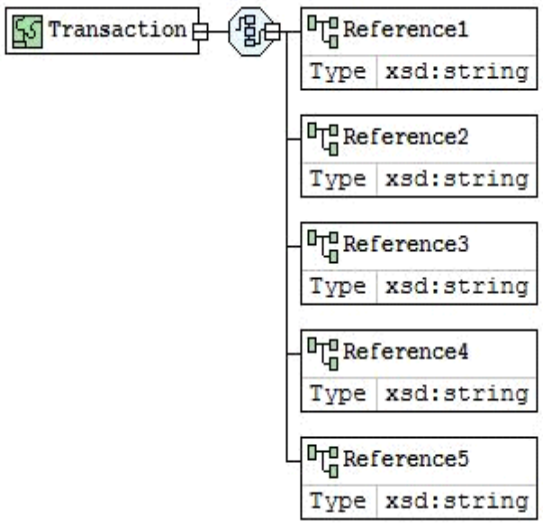



**Fig.5. Transaction Structure Diagram**

**Transaction:**

Please note that the Transaction element is not validated, and is also present in the method requests and returned in the responses for identification purposes.

Any type of data can be included by the user.

For a more detailed description of the elements, refer to Table 6.

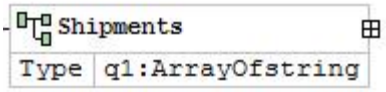



**Fig.6. Shipments Structure Diagram**

**Shipments:**

The Shipments element accepts several AWB numbers to be added to the list for their data retrieval.

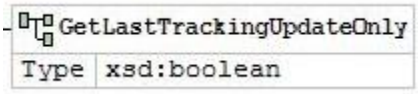



**Fig.7. Get Last Tracking Update Only Structure Diagram**

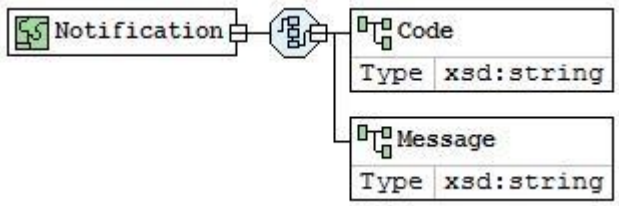
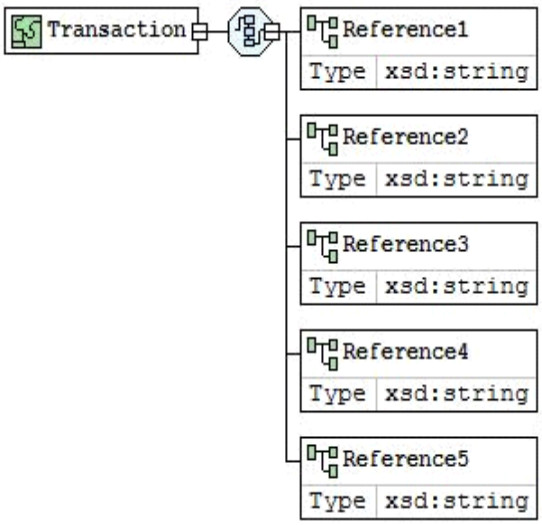
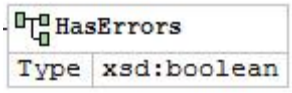
**Get Last Tracking Update Only:**

A Boolean value which determines whether the user requires all the updates associated with the shipment or only the latest one.

## 1.3 Response Elements

The Response has four elements (notification, transaction, has errors, tracking results)

**Table 4: Shipment Tracking Response Elements**

| Diagram | Description |
|---|---|
|  **Fig.8. Notification Structure Diagram** | **Notification:**<br><br>Contains details describing the errors or success.<br><br>**Code** = To Identify the notification category.<br>**Message** = Deeper description of the Notification. |
|  **Fig.9. Transaction Structure Diagram** | **Transaction:**<br><br>Contains the data sent in the request by the user, used mainly for identification purposes. |
|  **Fig.10. Has Errors Structure Diagram** | **HasErrors:**<br><br>Returns True if there are errors and False if there aren't. |

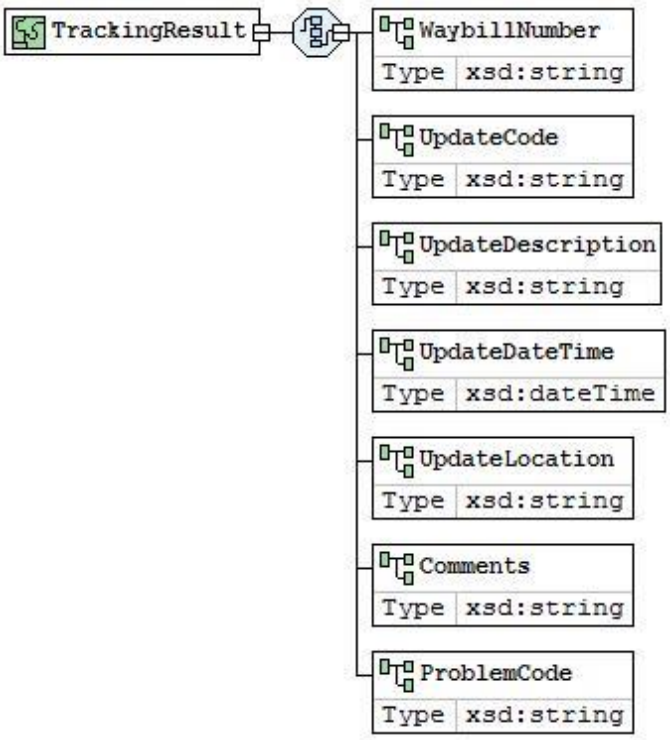



**Fig.11. Tracking Result Structure Diagram**

**Tracking Result:**

Returns the shipment's updates in the form of unique records, with the tracking result elements as fields.

# 2 Data Type Element Description

Further details on complex child elements of the Tracking API and their attributes are shown below.

**Element**: Element Name

**Data Type**: The type of data that can be inserted into this field.

**Required**: Specifies three categories

- **M** = Mandatory, This field must be filled in all cases.
- **O** = Optional, This field may or may not be filled.
- **C** = Conditional, This field may or may not be filled depending on another field being filled.

**Length**: The maximum number of characters allowed in this field.

**Allowed Values**: Specifies the accepted data of each field.

## 2.1 Client Info

**Table 5: List of Elements present in the Client Structure**

| Element | Data Type | Required | Length | Allowed Values | Description |
|---|---|---|---|---|---|
| User Name | String | M | 50 | | A unique user name sent to the user upon registration with http://www.aramex.com |
| Password | String | M | 50 | | A unique password to verify the user name, sent to the user upon registration with http://www.aramex.com |
| Version | String | M | 4 | | Based on the WSDL version the user is using to invoke the web service |
| Account Entity | String | M | 3 | | Identification Code for Transmitting Party. This code should be provided to you by Aramex. |
| Account Number | String | M | 50 | | The Customer's Account number provided by Aramex when the contract is signed. |
| Account PIN | String | M | 50 | | A key that is associated with the account number, so as to validate customer identity. |
| Account Country Code | String | M | 2 | | Two Letter Code Identifying the Country. Refer to Appendix D |

### 2.1.1 Testing credentials

To be able to test the Tracking API on our testing website, the user credentials below can be used:

**AccountCountryCode** =JO

**AccountEntity** = AMM

**AccountNumber**= 20016

**AccountPin** = 331421

**UserName** = testingapi@aramex.com

**Password** = R123456789$r

**Version** = v1.0

## 2.2 Transaction

**Table 6: List of Elements present in the Transaction Structure**

| Element | Data Type | Required | Length | Allowed Values | Description |
|---|---|---|---|---|---|
| Reference 1 | String | O | 50 | | Any details the user would like to add that will be sent back in the response. |
| Reference 2 | String | O | 50 | | Any details the user would like to add that will be sent back in the response. |
| Reference 3 | String | O | 50 | | Any details the user would like to add that will be sent back in the response. |
| Reference 4 | String | O | 50 | | Any details the user would like to add that will be sent back in the response. |
| Reference 5 | String | O | 50 | | Any details the user would like to add that will be sent back in the response. |