

# ***Mail.XML Version 24.1***

## **System Messages Specification**

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## Abstract

This document describes the messaging protocol for use by mailers and their consignees. The Mail.XML™ Transaction Protocol defines the roles and responsibilities of Shippers and Consignees and defines the format and method for message exchange. This messaging protocol is designed to be XML and Web-Services compliant.

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## About Mail.XML™

Mail.XML™ is bringing a paradigm change to the industry by increasing business function specific B2B (Business to Business) communication within the industry that supports automation and in the end enables cost avoidance and higher profits through improved competence and effectiveness of communication. Mail.XML is designed to increase efficiency and lower costs by removing many manual data entry processes and enabling quick near real time communication between business partners. Mail.XML currently supports container based scheduling, pick up and drop off business processes, as well as identifying different business entities responsible for performing different services such as quality of mailing, address correction, and delivery confirmation on a mailing. The core focus of Mail.XML is communication between industry members and from industry to the final mail processing and delivery organization that delivers the mail to the end consumer, e.g., USPS. In the next few versions of Mail.XML the focus moves across mailing supply chain channels, and includes advanced functions such as payment; automated verification; enabling first, second, and third-party communication and incorporating presort planning, printing, and distribution processes.

## What's New in Mail.XML Version 24.1?

With this release, the Mail.XML Messaging Protocol moves to Version 24.1. This release supports structure changes required by mailing industry and Postal Service.

Changes supported by Mail.XML 24.1 include:

- CR 2411 – Modification to RateCategoryType, to include a value of B2 to represent High Density Flats Carrier Route Bundles on Pallets
- CR 2412 – Updates to CharacteristicIncentiveType to include enumerations from 0X to 9X to make values consistent with list of Content values and with Mail.dat
- CR 2410 – Updates to ZoneIType to support Zone 10 (represented as value A) for USPS competitive products

## About Mail.XML Schema Modularization

Today Mail.XML messages are grouped into 8 message types.

- Transportation Messages (TM)
- Mailing Messages (MM)
- Data Distribution Messages (DD)
- Dynamic Payment Template Messages
- Identification Messages (ID)
- Supply Chain Messages (SC)

- Informed Visibility (IV)
- System Messages
- Base: Shared simple types
- Definitions: Shared complex types and elements

The simple types shared across 2 or more modules are found in the Base schema. Likewise, the shared definitions module contains complex type definitions and elements that are shared across 2 or more modules.

## Mail.XML Module Versioning Rules

The following versioning rules will be followed:

The Mail.XML wrapper schema<sup>2</sup>.xsd) will always be given the next higher version number (or Errata designation) when any update is made to base, defs or any module. The name of the .xsd file will indicate the new version and the new version number will be used in the namespace and target declarations: xmlns:mailxml=<http://delivery-tech.org/Specs/mailxml24.1/mailxml> targetNamespace=<http://delivery-tech.org/Specs/mailxml24.1/mailxml>

- When updates are made, only those modules that are updated will be given the next higher version number (or Errata letter designation).
- If updates are made to the base or defs, then the base and defs xsds will be given the next higher version number (or Errata designation) and all modules that call to them will also be given the next higher version number (or Errata designation).

For example:

- If the wrapper version is labeled as xmlns:mailxml="http://deliverytech.org/Specs/mailxml24.1A/mailxml" then at least one of the XSDs is at same version such as filename = 'Mail.XML\_24.1A.xsd' <- Errata A
- If the wrapper version is labeled as xmlns:mailxml="http://deliverytech.org/Specs/mailxml24.1B/mailxml" then at least one of the XSDs is at same version such as filename = 'Mail.XML\_24.1B.xsd' <- Errata B
- If the wrapper version is labeled as xmlns:mailxml="http://deliverytech.org/Specs/mailxml24.1/mailxml" then at least one of the XSDs is at same version such as filename = 'Mail.XML\_24.1.xsd' <- Major Version

## Mail.XML 24.1 XSD Modules:

The following Mail.XML XSD modules/namespaces are used:

Note: Actual xsd filenames include the version number (e.g. *mailxml\_base\_24.1.xsd*).

- mailxml\_tm.xsd: This module contains all the transportation (or FAST) messages and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_tm:
- mailxml\_mm.xsd: This module contains all the mailing messages (eDoc) and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_mm:

- mailxml\_iv.xsd: This module contains informed visibility messages and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_iv:
- mailxml\_dd.xsd: This module contains all the data distribution messages and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_dd:
- mailxml\_id.xsd: This module contains all the identification messages and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_id:
- mailxml\_sc.xsd: This module contains all the supply chain messages and the attributes, elements and complex types that are unique to these messages. Namespace=mailxml\_sc:
- mailxml\_defs.xsd: This module contains all the common definitions of attributes, elements and mailxml\_base.xsd: This module contains simple types that are shared across two or more modules that make up Mail.XML. These can be considered a building block for any message group. Namespace=mailxml\_base:
- mailxml.xsd: This module contains the system messages of Mail.XML and is used to build custom profiles for Mail.XML. Namespace=mailxml:

## The Mail.XML™ 24 Messaging Documentation Set

The Mail.XML Messaging Specification has been organized into a set of documents. This *Schemas Specification* is one document in a set of documents that make up the Mail.XML Specification 23.0. Updates in this Specification are NOT backwardly compatible with previous versions. Other documents in the specification set include:

- Mail.XML™ 24.1: Transportation Messaging Specification documents all transportation messages
- Mail.XML™ 24.1: Mailing Messaging Specification documents all mailing messages
- Mail.XML™ 24.1: Informed Visibility Specification documents all informed visibility messages
- Mail.XML™ 24.1: Data Distribution Messaging Specification documents all data distribution messages
- Mail.XML™ 24.1: Identification Messaging Specification documents all identification messages
- Mail.XML™ 24.1: Supply Chain Messaging Specification documents all supply chain messages
- Mail.XML™ 24.1: System Messaging Specification documents all systems and fault messages
- Mail.XML™ 24.1: Simple Types Specification documents all simple types used across Mail.XML messages
- Mail.XML™ 24.1: Common Definitions Specification documents all shared elements and complex types.
- Mail.XML™ 24.1: Schemas contains the .XSDs that make up the Mail.XML Messaging Specification

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schema location: **mailxml\_24.1.xsd**  
attributeFormDefault: **qualified**  
elementFormDefault: **qualified**  
targetNamespace: **http://delivery-tech.org/Specs/mailxml24.1/mailxml**

## Elements

**DeliveryResponse**  
**Fault**  
**MessageResponseRetrievalRequest**  
**MessageResponseRetrievalResponse**  
**NotificationResponse**  
**SystemVersionQueryRequest**  
**SystemVersionQueryResponse**

## Complex types

**messageResponseNotAvailableResponseType**  
**messageResponseRetrievalRequestType**  
**messageResponseRetrievalResponseType**

# 2 Elements

## element **DeliveryResponse**

diagram	
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml
children	<b>mailxml:UserLicenseCode</b> <b>mailxml:MaildatJobID</b> <b>mailxml:CustomerGroupID</b> <b>mailxml:MailingGroupID</b> <b>mailxml:PushMessageID</b> <b>mailxml:DeliveryType</b> <b>mailxml:ReturnInfo</b>
used by	element <b>messageResponseRetrievalResponseType/QueryResults</b>
annotation	documentation Response sent to USPS by a customer when any delivery is pushed. For example when a delivery point validation delivery is pushed by USPS this response is returned by the receiver.

## element **Fault**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					
children	<b>mailxml:ErrorWarning</b>					
used by	element <b>messageResponseRetrievalResponseType/QueryResults</b>					
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	<b>mailxml_base:s20</b>				
annotation	documentation A fault message.					

## element **MessageResponseRetrievalRequest**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					
children	<b>mailxml:SubmittingParty mailxml:SubmittingSoftware mailxml:MessageResponse</b>					
annotation	documentation Request to send responses once more when the response was interrupted by a system fault.					

## element **MessageResponseRetrievalResponse**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					
children	<b>mailxml:MessageResponseRetrievalAccept mailxml:MessageResponseRetrievalReject</b>					
annotation	documentation Response to the Message Response Retrieval Request that resends interrupted responses.					



## element **NotificationResponse**

diagram	<p><b>NotificationResponse</b></p> <p>Standard response to a USPS notification to indicate the notification has been received.</p>
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml
children	<b>mailxml:UserLicenseCode mailxml:MaildatJobID mailxml:CustomerGroupID mailxml:MailingGroupID mailxml:PushMessageID mailxml:NotificationDate mailxml:ReturnInfo</b>
used by	element <b>messageResponseRetrievalResponseType/QueryResults</b>
annotation	documentation Standard response to a USPS notification to indicate the notification has been received.

## element **SystemVersionQueryRequest**

diagram	<p><b>SystemVersionQueryRequest</b></p> <p>Query request for the receiving system version information.</p>
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml
children	<b>mailxml:TrackingID mailxml:SubmittingParty mailxml:SubmittingSoftware</b>
annotation	documentation Query request for the receiving system version information.

## element **SystemVersionQueryResponse**

diagram	<p><b>SystemVersionQueryRespo...</b></p> <p>Response to a query for the receiving system version information.</p> <p>Error issued when the query data cannot be provided.</p>
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml

children	<b>mailxml:QueryResults mailxml_defs:QueryError</b>
used by	element <b>messageResponseRetrievalResponseType/QueryResults</b>
annotation	documentation Response to a query for the receiving system version information.

complexType **messageResponseNotAvailableResponseType**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					
children	<b>mailxml:ReturnInfo</b>					
used by	element <b>MessageResponseRetrievalResponse/MessageResponseRetrievalReject</b>					
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	<b>mailxml_base:s20</b>	required			

complexType **messageResponseRetrievalRequestType**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					
used by	element <b>MessageResponseRetrievalRequest/MessageResponse</b>					
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	<b>mailxml_base:s20</b>	required			

complexType **messageResponseRetrievalResponseType**

diagram						
namespace	http://delivery-tech.org/Specs/mailxml24.1/mailxml					

children	<b>mailxml:QueryResults mailxml_defs:QueryError</b>					
used by	element	<b>MessageResponseRetrievalResponse/MessageResponseRetrievalAccept</b>				
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	<b>mailxml_base:s20</b>	required			