Mail.XML Version 23.1

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 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 23.1?

With this release, the Mail.XML Messaging Protocol moves to Version 23.1. This release supports structure changes required by mailing industry and Postal Service.

Changes supported by Mail.XML 23.1 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 ZoneICType 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**.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://idealliance.org/Specs/mailxml23.1/mailxml targetNamespace=http://idealliance.org/Specs/mailxml23.1/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://idealliance.org/Specs/mailxml23.1A/mailxml" then at least one of the XSDs is at same version such as filename ='Mail.XML_23.1A.xsd' <- Errata A
- If the wrapper version is labeled as xmlns:mailxml="http://idealliance.org/Specs/mailxml23.1B/mailxml" then at least one of the XSDs is at same version such as filename ='Mail.XML_23.1B.xsd' <- Errata B
- If the wrapper version is labeled as xmlns:mailxml="http://idealliance.org/Specs/mailxml23.1/mailxml" then at least one of the XSDs is at same version such as filename ='Mail.XML_23.1.xsd' <- Major Version

Mail.XML 23.1 XSD Modules:

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

Note: Actual xsd filenames include the version number (e.g. *mailxml_base_**23.1**.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™ 23.1 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™ 23.1: Transportation Messaging Specification documents all transportation messages
- Mail.XML™ 23.1: Mailing Messaging Specification documents all mailing messages

- Mail.XML™ 23.1: Informed Visibility Specification documents all informed visibility messages
- Mail.XML™ 23.1: Data Distribution Messaging Specification documents all data distribution messages
- Mail.XML™ 23.1: Identification Messaging Specification documents all identification messages
- Mail.XML™ 23.1: Supply Chain Messaging Specification documents all supply chain messages
- Mail.XML™ 23.1: System Messaging Specification documents all systems and fault messages
- Mail.XML™ 23.1: Simple Types Specification documents all simple types used across Mail.XML messages
- Mail.XML™ 23.1: Common Definitions Specification documents all shared elements and complex types.
- Mail.XML™ 23.1: Schemas contains the .XSDs that make up the Mail.XML Messaging Specification

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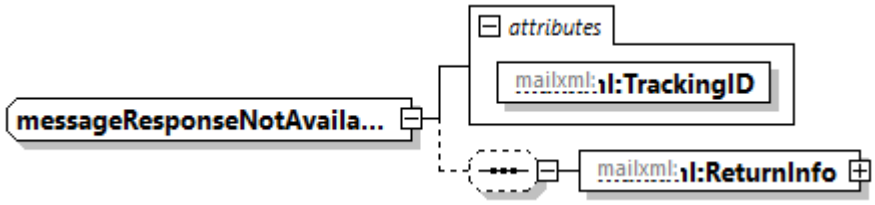
schema name: **mailxml_23.1.xsd**
attributeFormDefault: **qualified**
elementFormDefault: **qualified**
targetNamespace: **http://idealliance.org/Specs/mailxml23.1/mailxml**

Complex types

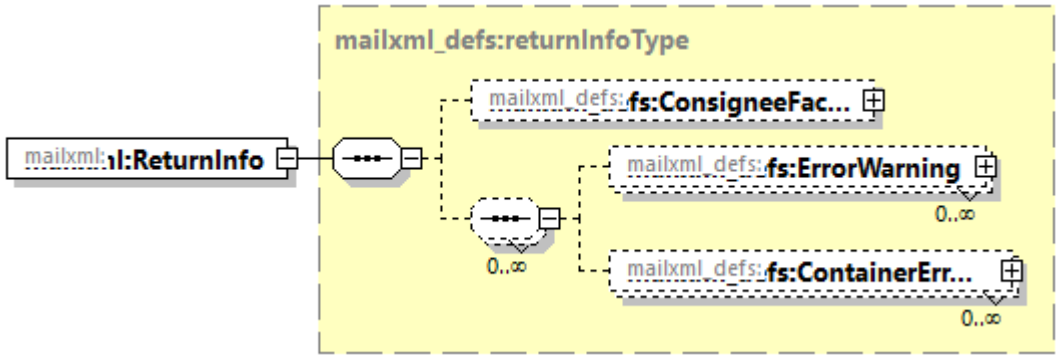
messageResponseNotAvailableResponseType
messageResponseRetrievalRequestType
messageResponseRetrievalResponseType

2 Elements

complexType **messageResponseNotAvailableResponseType**

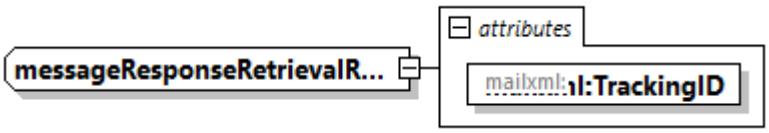
diagram	
namespace	http://idealliance.org/Specs/mailxml23.1/mailxml
children	**mailxml:ReturnInfo**
used by	element **MessageResponseRetrievalResponse/MessageResponseRetrievalReject**
attributes	Name: mailxml:TrackingID; Type: **mailxml_base:s20**; Use: required; Default; Fixed; Annotation

element **messageResponseNotAvailableResponseType/ReturnInfo**

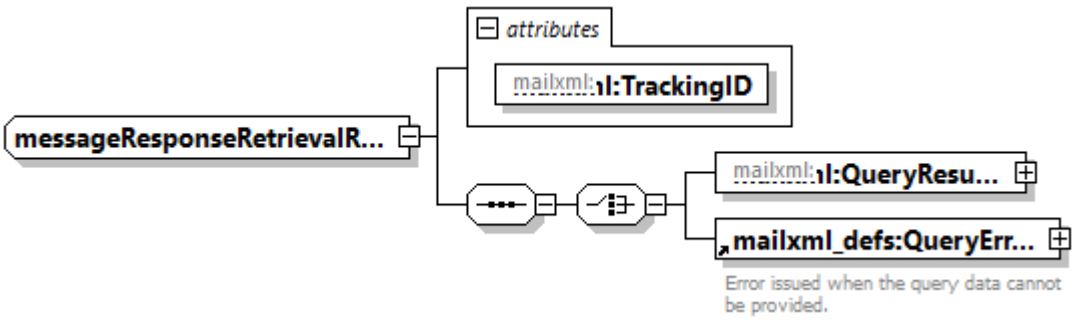
diagram	
namespace	http://idealliance.org/Specs/mailxml23.1/mailxml
type	**mailxml_defs:returnInfoType**
children	**mailxml_defs:ConsigneeFacility mailxml_defs:ErrorWarning**

	mailxml_defs:ContainerErrorWarningBlock

complexType **messageResponseRetrievalRequestType**

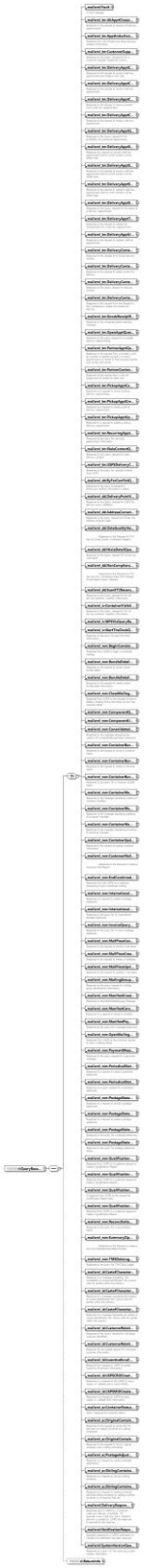
diagram						
namespace	http://idealliance.org/Specs/mailxml23.1/mailxml					
used by	element **MessageResponseRetrievalRequest/MessageResponse**					
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	**mailxml_base:s20**	required			

complexType **messageResponseRetrievalResponseType**

diagram						
namespace	http://idealliance.org/Specs/mailxml23.1/mailxml					
children	**mailxml:QueryResults mailxml_defs:QueryError**					
used by	element **MessageResponseRetrievalResponse/MessageResponseRetrievalAccept**					
attributes	Name	Type	Use	Default	Fixed	Annotation
	mailxml:TrackingID	**mailxml_base:s20**	required			

element **messageResponseRetrievalResponseType/QueryResults**

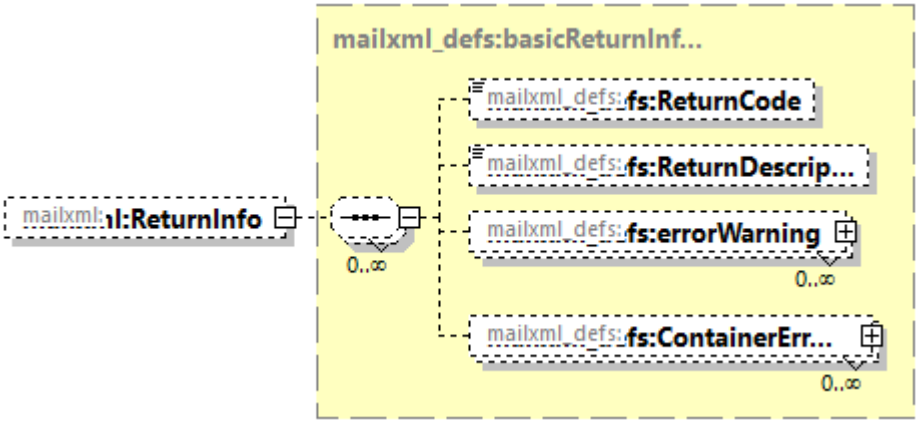
diagram



namespace	http://idealliance.org/Specs/mailxml23.1/mailxml
children	**mailxml:Fault mailxml_tm:AllApptCloseoutResponse** **mailxml_tm:ApptInductionCloseoutResponse** **mailxml_tm:CustomerSupplierAgreementQueryResponse** **mailxml_tm:DeliveryApptCancelCreateResponse mailxml_tm:DeliveryApptCancelResponse** **mailxml_tm:DeliveryApptContentRemoveResponse mailxml_tm:DeliveryApptCreateResponse** **mailxml_tm:DeliveryApptQueryResponse mailxml_tm:DeliveryApptShellCancelResponse** **mailxml_tm:DeliveryApptShellCreateResponse mailxml_tm:DeliveryApptShellUpdateResponse** **mailxml_tm:DeliveryApptStatusQueryResponse** **mailxml_tm:DeliveryApptTransportationUpdateResponse** **mailxml_tm:DeliveryApptUpdateResponse mailxml_tm:DeliveryContentCancelResponse** **mailxml_tm:DeliveryContentCreateResponse mailxml_tm:DeliveryContentQueryResponse** **mailxml_tm:DeliveryContentUpdateResponse mailxml_tm:GoodsReceiptResponse** **mailxml_tm:OpenApptQueryResponse mailxml_tm:PartnerApptQueryResponse** **mailxml_tm:PartnerContentAssignmentResponse mailxml_tm:PickupApptCancelResponse** **mailxml_tm:PickupApptCreateResponse mailxml_tm:PickupApptUpdateResponse** **mailxml_tm:RecurringApptQueryResponse mailxml_tm:StaleContentQueryResponse** **mailxml_tm:USPSDeliveryContentUpdatedQueryResponse** **mailxml_dd:ByForConflictQueryResponse mailxml_dd:DeliveryPointValidationQueryResponse** **mailxml_dd:AddressCorrectionQueryResponse** **mailxml_dd:DataQualityVerificationReportQueryResponse** **mailxml_dd:NixieDetailQueryResponse** **mailxml_dd:NonComplianceDataWithPostageOwedReportQueryResponse** **mailxml_dd:ScanSTCReconciliationQueryResponse** **mailxml_iv:ContainerVisibilityQueryResponse mailxml_iv:MPSVisQueryResponse** **mailxml_iv:StartTheClockQueryResponse mailxml_mm:BeginCombinedMailingResponse** **mailxml_mm:BundleDetailCancelResponse mailxml_mm:BundleDetailCreateResponse** **mailxml_mm:CloseMailingGroupResponse mailxml_mm:ComponentQueryResponse** **mailxml_mm:ComponentUpdateResponse** **mailxml_mm:ConsolidatedPeriodicalStatementCreateResponse** **mailxml_mm:ContainerBundleReportCancelResponse** **mailxml_mm:ContainerBundleReportCreateResponse** **mailxml_mm:ContainerBundleReportQueryResponse** **mailxml_mm:ContainerManifestCreateResponse** **mailxml_mm:ContainerManifestUpdateResponse** **mailxml_mm:ContainerManifestCancelResponse mailxml_mm:ContainerUpdateResponse** **mailxml_mm:CustomerMailReportCreateResponse** **mailxml_mm:EndCombinedMailingResponse** **mailxml_mm:InternationalPostageStatementCreateResponse** **mailxml_mm:InternationalPostageStatementQueryResponse** **mailxml_mm:InvoiceQueryResponse mailxml_mm:MailPieceCancelResponse** **mailxml_mm:MailPieceCreateResponse mailxml_mm:MailPieceUpdateResponse** **mailxml_mm:MailingGroupQueryResponse mailxml_mm:ManifestCreateResponse** **mailxml_mm:ManifestCancelResponse mailxml_mm:ManifestPaymentExtractQueryResponse** **mailxml_mm:OpenMailingGroupResponse mailxml_mm:PaymentMessageQueryResponse** **mailxml_mm:PeriodicalStatementCreateResponse** **mailxml_mm:PeriodicalStatementQueryResponse**

	mailxml_mm:PostageStatementCancelResponse mailxml_mm:PostageStatementCreateResponse mailxml_mm:PostageStatementQueryResponse mailxml_mm:PostageStatementStatusQueryResponse mailxml_mm:QualificationReportCreateResponse mailxml_mm:QualificationReportDetailCreateResponse mailxml_mm:QualificationReportQueryResponse mailxml_mm:QualificationReportSummaryCreateResponse mailxml_mm:ReconciliationReportQueryResponse mailxml_mm:SummaryZipDestinationReportCreateResponse mailxml_mm:TMSDataLoggerQueryResponse mailxml_id:CastofCharactersCancelResponse mailxml_id:CastofCharactersCreateResponse mailxml_id:CastofCharactersUpdateResponse mailxml_id:CustomerRelationIdentifyQueryResponse mailxml_id:CustomerRelationIdentifyUpdateResponse mailxml_id:IncentiveEnrollmentCreateResponse mailxml_id:USPSCRIDCreateValidateResponse mailxml_id:USPSMIDCreateValidateResponse mailxml_sc:ContainerStatusQueryResponse mailxml_sc:OriginalContainerLinkageCancelResponse mailxml_sc:OriginalContainerLinkageCreateResponse mailxml_sc:PostageAdjustmentCreateResponse mailxml_sc:SiblingContainerCancelResponse mailxml_sc:SiblingContainerCreateResponse mailxml:DeliveryResponse mailxml:NotificationResponse mailxml:SystemVersionQueryResponse mailxml:ReturnInfo

element **messageResponseRetrievalResponseType/QueryResults/ReturnInfo**

diagram	
namespace	http://idealliance.org/Specs/mailxml23.1/mailxml
type	**mailxml_defs:basicReturnInfoType**
children	**mailxml_defs:ReturnCode mailxml_defs:ReturnDescription mailxml_defs:errorWarning mailxml_defs:ContainerErrorWarningBlock**