

Mail.XML Version 25.4

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 25.4?

With this release, the Mail.XML Messaging Protocol moves to Version 25.4. This release supports structure changes required by mailing industry and Postal Service.

Changes supported by Mail.XML 25.4 include:

- CR 2525 - Update characteristicIncentiveType, add FG for First-Class Growth Incentive Credit Redemption
- CR 2526 - Update characteristicIncentiveType, add MG for USPS Marketing Mail Growth Incentive Credit Redemption
- CR 2527 - Update containerLevelType, add AU for Protected Mixed ADC and AV for Protected Mixed NDC

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://delivery-tech.org/Specs/mailxml25.4/mailxml"`
`targetNamespace="http://delivery-tech.org/Specs/mailxml25.4/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/mailxml25.4A/mailxml"` then at least one of the XSDs is at same version such as `filename='Mail.XML_25.4A.xsd'` <- Errata A
- If the wrapper version is labeled as `xmlns:mailxml="http://deliverytech.org/Specs/mailxml25.4B/mailxml"` then at least one of the XSDs is at same version such as `filename='Mail.XML_25.4B.xsd'` <- Errata B
- If the wrapper version is labeled as `xmlns:mailxml="http://deliverytech.`

org/Specs/mailxml25.4/mailxml" then at least one of the XSDs is at same version such as
filename ='Mail.XML_25.4.xsd' <- Major Version

Mail.XML 25.4 XSD Modules

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

- Mail.XML_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=Mail.XML_tm:
- Mail.XML_mm.xsd: This module contains all the mailing messages (eDoc) and the attributes, elements and complex types that are unique to these messages. Namespace=Mail.XML_mm:
- Mail.XML_iv.xsd: This module contains informed visibility messages and the attributes, elements and complex types that are unique to these messages. Namespace=Mail.XML_iv:
- Mail.XML_dd.xsd: This module contains all the data distribution messages and the attributes, elements and complex types that are unique to these messages. Namespace=Mail.XML_dd:
- Mail.XML_id.xsd: This module contains all the identification messages and the attributes, elements and complex types that are unique to these messages. Namespace=Mail.XML_id:
- Mail.XML_sc.xsd: This module contains all the supply chain messages and the attributes, elements and complex types that are unique to these messages. Namespace=Mail.XML_sc:
- Mail.XML_defs.xsd: This module contains all the common definitions of attributes, elements and complex types that are used across two or more message types. Namespace=Mail.XML_defs:
- Mail.XML_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=Mail.XML_base:
- Mail.XML.xsd: This module contains the system messages of Mail.XML and is used to build custom profiles for Mail.XML. Namespace=Mail.XML:

The Mail.XML™ 25.4 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 25.4. Updates in this Specification are NOT backwardly compatible with previous versions. Other documents in the specification set include:

- Mail.XML™ 25.4: Transportation Messaging Specification documents all transportation messages
- Mail.XML™ 25.4: Mailing Messaging Specification documents all mailing messages
- Mail.XML™ 25.4: Informed Visibility Specification documents all informed visibility messages
- Mail.XML™ 25.4: Data Distribution Messaging Specification documents all data distribution messages
- Mail.XML™ 25.4: Identification Messaging Specification documents all identification messages
- Mail.XML™ 25.4: Supply Chain Messaging Specification documents all supply chain messages
- Mail.XML™ 25.4: System Messaging Specification documents all systems and fault messages
- Mail.XML™ 25.4: Simple Types Specification documents all simple types used across Mail.XML messages
- Mail.XML™ 25.4: Common Definitions Specification documents all shared elements and complex

- types.
- Mail.XML™ 25.4: Schemas contains the .XSDs that make up the Mail.XML Messaging Specification

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Schema mailxml_iv_25.4.xsd	8

Schema mailxml_iv_25.4.xsd

schema location: [..\\XSDs\\mailxml_iv_25.4.xsd](http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv_25.4.xsd)
attribute form default: **qualified**
element form default: **qualified**
targetNamespace: **http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv**

Elements

[ContainerVisibilityDelivery](#)
[ContainerVisibilityEntry](#)
[ContainerVisibilityNotification](#)
[ContainerVisibilityQueryRequest](#)
[ContainerVisibilityQueryResponse](#)
[IMbMailpieceScanData](#)
[MPSVisDelivery](#)
[MPSVisNotification](#)
[MPSVisQueryRequest](#)
[MPSVisQueryResponse](#)
[StartTheClockBMEUBlock](#)
[StartTheClockDelivery](#)
[StartTheClockDropShipOrOrigin](#)
[StartTheClockNotification](#)
[StartTheClockPlantLoadBlock](#)
[StartTheClockQueryRequest](#)
[StartTheClockQueryResponse](#)

Complex types

[clockStartedType](#)
[manifestScanEventDetailType](#)
[manifestScanNotificationDataType](#)
[manifestScanQueryType](#)
[MPSNotificationDataType](#)
[MPSRequestTypeType](#)
[MPSVisScanQueryType](#)
[PSRBlockType](#)
[scanEventQueryTypeType](#)
[ScanEventResultOptionsType](#)

Simple types

[eDocTypeType](#)
[handlingEventTypeType](#)
[mailObjectTypeType](#)
[recipientRoleType](#)
[scanEventCodeType](#)

element **ContainerVisibilityDelivery**

diagram	<pre> graph LR CVD[ContainerVisibilityDelivery] --- Attr[attributes] Attr --- G1[grp mailxml_defs:LargeTrans...] G1 --- MGID[mailxml_defs:MessageGroupID] G1 --- TMC[mailxml_defs:TotalMessageCou...] G1 --- MSN[mailxml_defs:MessageSerialNu...] G1 --- TR[mailxml_defs:TransmittedRecor...] G1 --- TRA[mailxml_defs:TotalRecordsAcro...] G1 --- LM[mailxml_defs:LastMessage] CVD --- S1(()) S1 --- SP[mailxml_iv:SubmittingParty] S1 --- SS[mailxml_iv:SubmittingSoftware] S1 --- DR[mailxml_defs:DataRecipient] S1 --- PMID[mailxml_iv:PushMessageID] S1 --- CVE[mailxml_iv:ContainerVisibilityE...] CVE --- CVD style S1 fill:none,stroke:none style CVD fill:none,stroke:none </pre> <p>ContainerVisibilityDelivery Delivery of full service container visibility information by uSPS.</p> <p>attributes</p> <ul style="list-style-type: none"> grp mailxml_defs:LargeTrans... <ul style="list-style-type: none"> mailxml_defs:MessageGroupID mailxml_defs:TotalMessageCou... mailxml_defs:MessageSerialNu... mailxml_defs:TransmittedRecor... mailxml_defs:TotalRecordsAcro... mailxml_defs:LastMessage <p>Sequence of child elements:</p> <ul style="list-style-type: none"> mailxml_iv:SubmittingParty mailxml_iv:SubmittingSoftware mailxml_defs:DataRecipient mailxml_iv:PushMessageID mailxml_iv:ContainerVisibilityE... (1..∞)
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
annotation	documentation Delivery of full service container visibility information by uSPS.

element **ContainerVisibilityEntry**

diagram



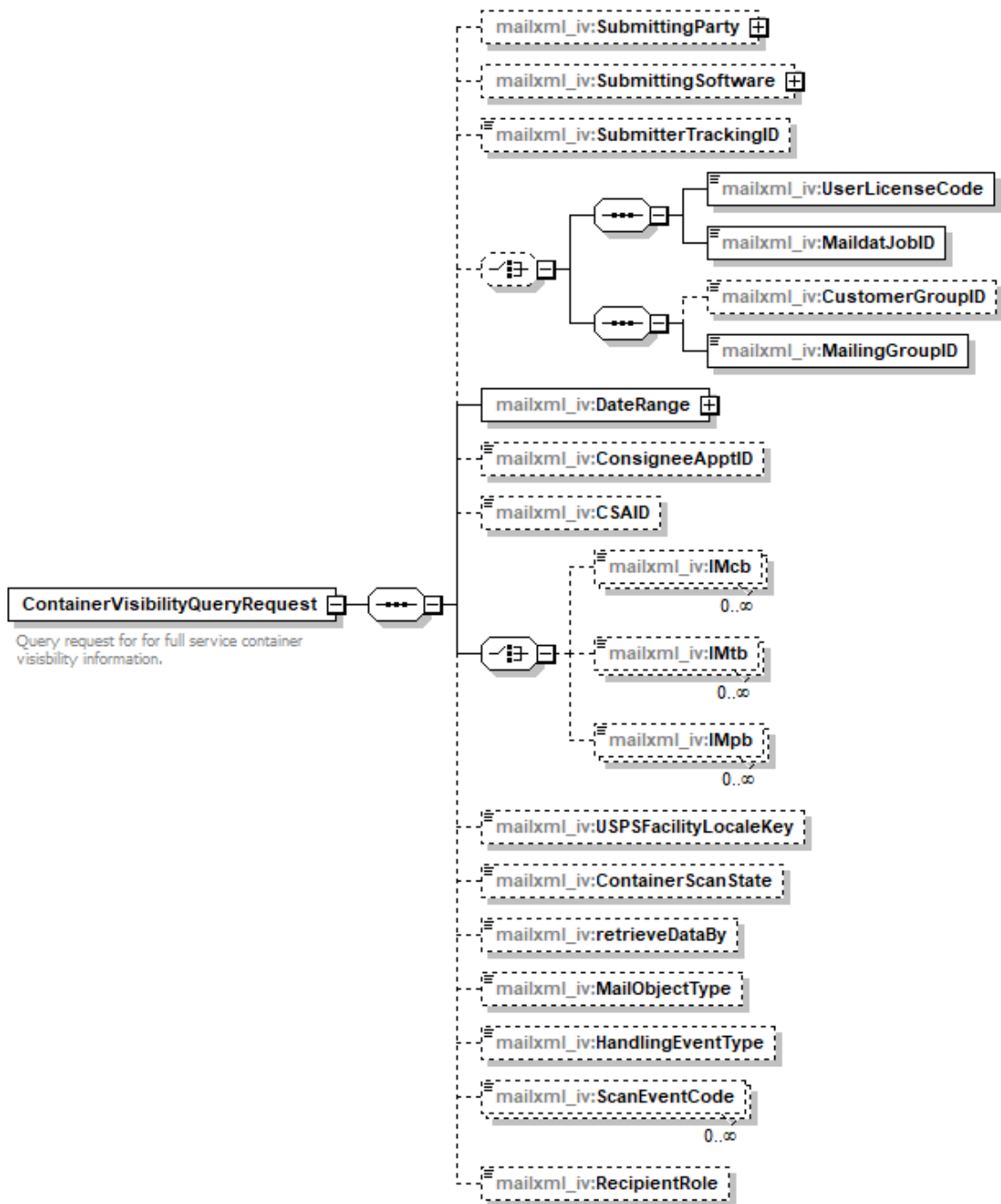
namespace http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

element **ContainerVisibilityNotification**

<p>diagram</p>	<p>ContainerVisibilityNotification</p> <p>Notification sent by USPS that full service container visibility information is ready for pickup.</p> <p>mailxml_iv:SubmittingParty</p> <p>mailxml_iv:SubmittingSoftware</p> <p>mailxml_iv:PushMessageID</p> <p>mailxml_iv:UserLicenseCode</p> <p>mailxml_iv:MaildatJobID</p> <p>mailxml_iv:CustomerGroupID</p> <p>mailxml_iv:MailingGroupID</p> <p>mailxml_iv:FSNonFSAvailabilityD...</p> <p>mailxml_iv:AvailableRecordCount</p> <p>mailxml_iv:CountType</p> <p>mailxml_iv:NotificationDate</p> <p>0..∞</p>
namespace	<p>http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv</p>
annotation	<p>documentation</p> <p>Notification sent by USPS that full service container visibility information is ready for pickup.</p>

element **ContainerVisibilityQueryRequest**

diagram



namespace http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

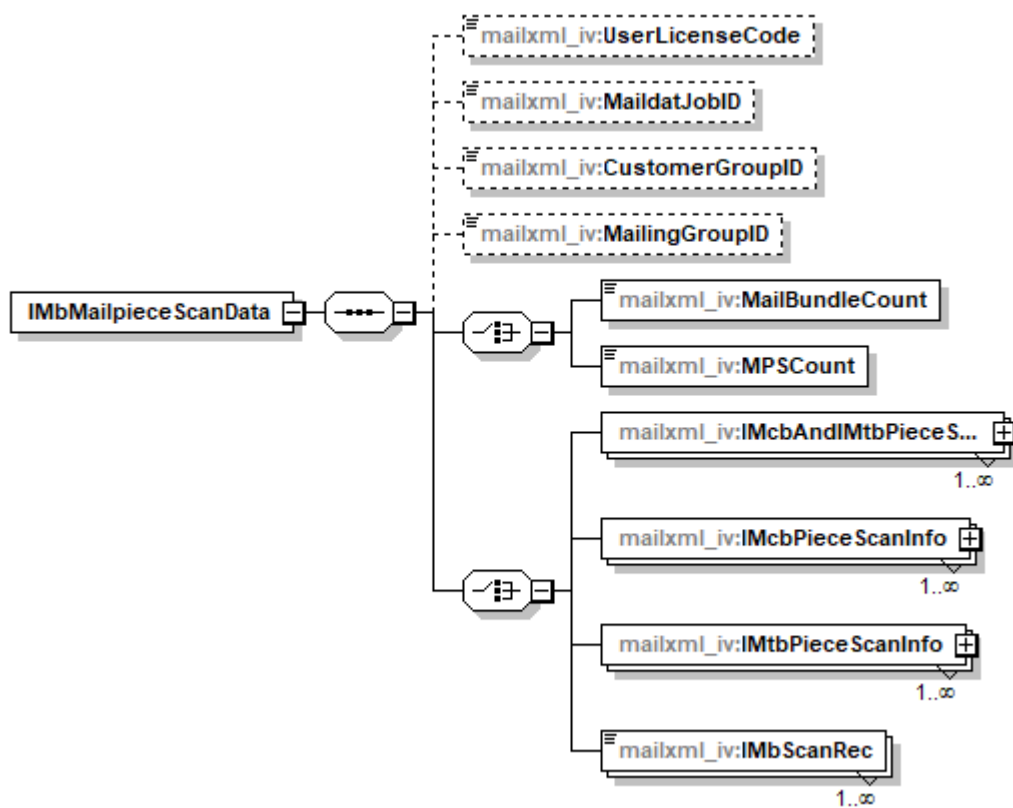
annotation documentation
Query request for for full service container visibility information.

element **ContainerVisibilityQueryResponse**

diagram	<p>ContainerVisibilityQueryRespo... Response to the Query request for for full service container visisbility information.</p> <p>attributes</p> <p>grp mailxml_defs:LargeTrans...</p> <ul style="list-style-type: none"> mailxml_defs:MessageGroupID mailxml_defs:TotalMessageCou... mailxml_defs:Message SerialNu... mailxml_defs:TransmittedRecor... mailxml_defs:TotalRecordsAcro... mailxml_defs:LastMessage <p>mailxml_iv:TrackingID</p> <p>mailxml_iv:SubmitterTrackingID</p> <p>mailxml_iv:QueryResults</p> <p>mailxml_defs:QueryError Error issued when the query data cannot be provided.</p>
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
annotation	<p>documentation</p> <p>Response to the Query request for for full service container visibility information.</p>

element **IMbMailpieceScanData**

diagram

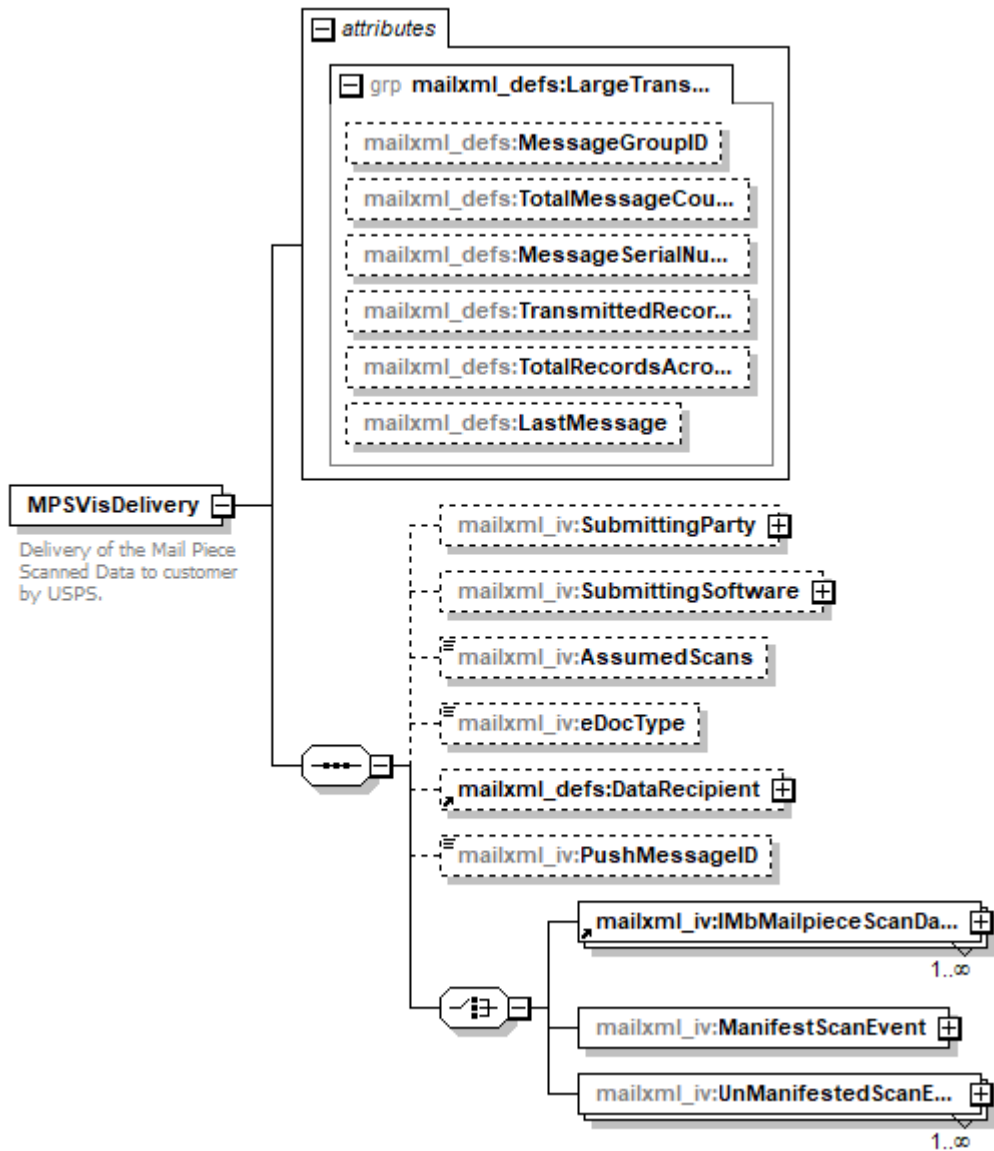


namespace

http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

element **MPSVisDelivery**


diagram



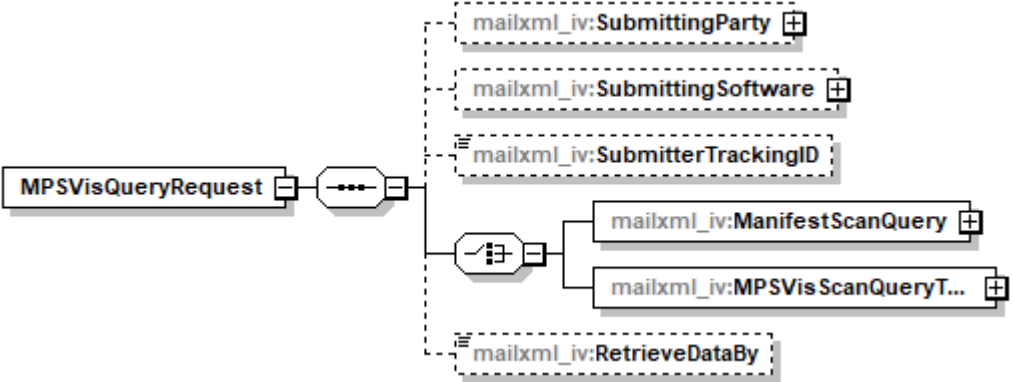
namespace http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

documentation
Delivery of the Mail Piece Scanned Data to customer by USPS.

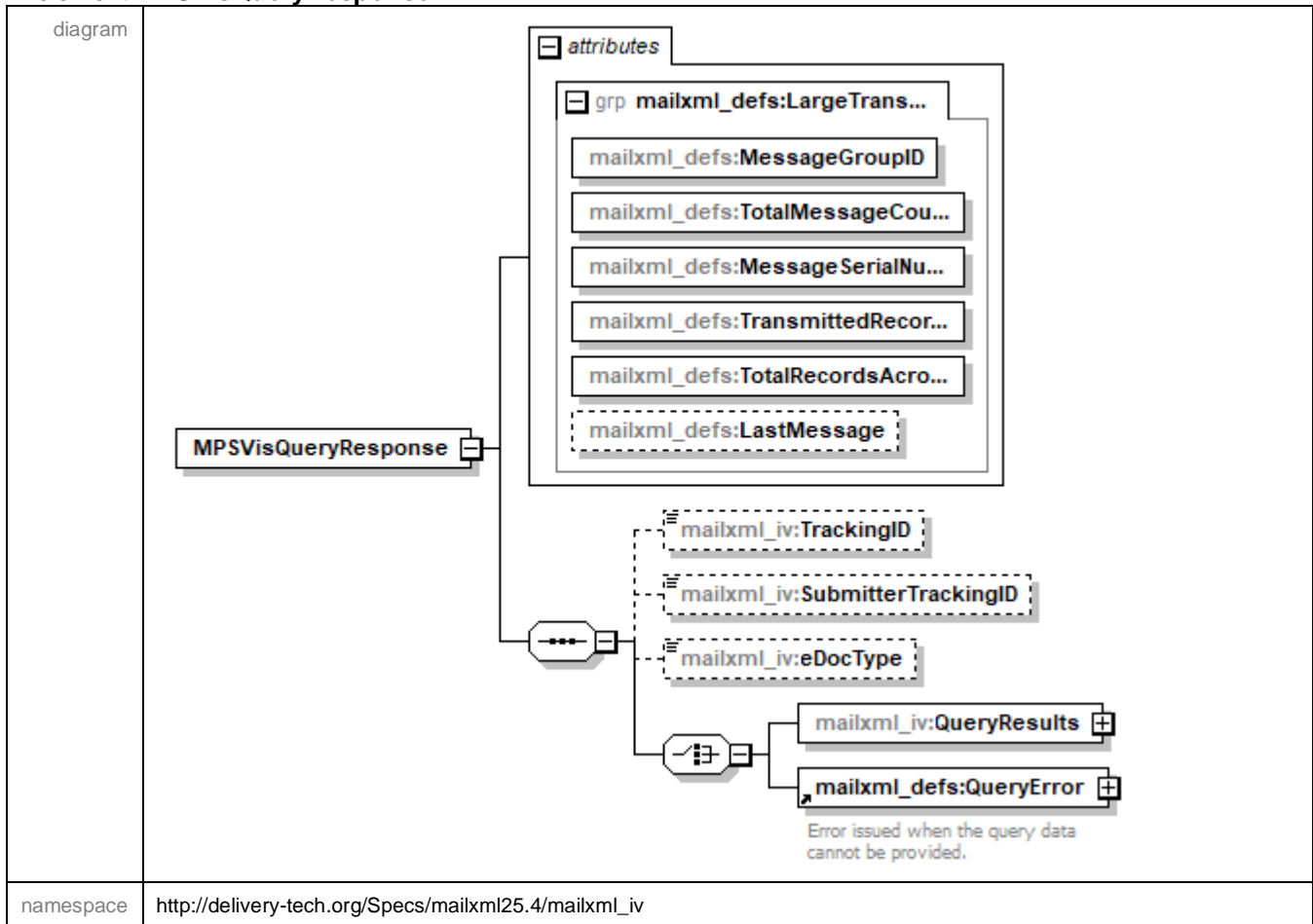
element MPSVisNotification

diagram	 <p>MPSVisNotification</p> <p>Notification from USPS that the Mail Piece Scanned Data is ready.</p> <ul style="list-style-type: none"> mailxml_iv:SubmittingParty mailxml_iv:SubmittingSoftware mailxml_iv:AssumedScans mailxml_iv:eDocType mailxml_defs:DataRecipient mailxml_iv:PushMessageID mailxml_iv:UserLicenseCode mailxml_iv:MaildatJobID mailxml_iv:CustomerGroupID mailxml_iv:MailingGroupID mailxml_iv:AvailableRecordCount mailxml_iv:NotificationDate Choice: <ul style="list-style-type: none"> mailxml_iv:MPSNotificationData mailxml_iv:ManifestScanNotific...
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
annotation	documentation Notification from USPS that the Mail Piece Scanned Data is ready.

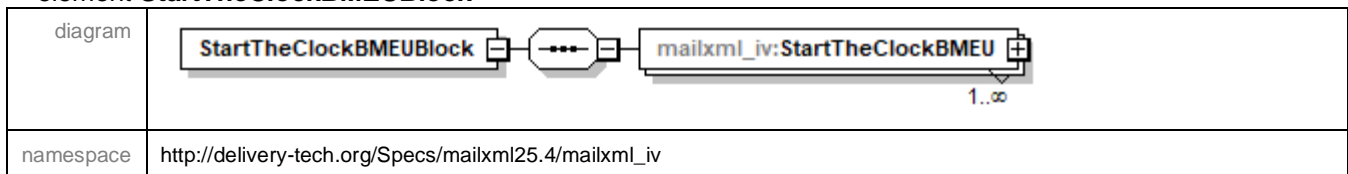
element MPSVisQueryRequest

diagram	 <p>MPSVisQueryRequest</p> <ul style="list-style-type: none"> mailxml_iv:SubmittingParty mailxml_iv:SubmittingSoftware mailxml_iv:SubmitterTrackingID Choice: <ul style="list-style-type: none"> mailxml_iv:ManifestScanQuery mailxml_iv:MPSVis ScanQueryT... mailxml_iv:RetrieveDataBy
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

element **MPSVisQueryResponse**



element **StartTheClockBMEUBlock**

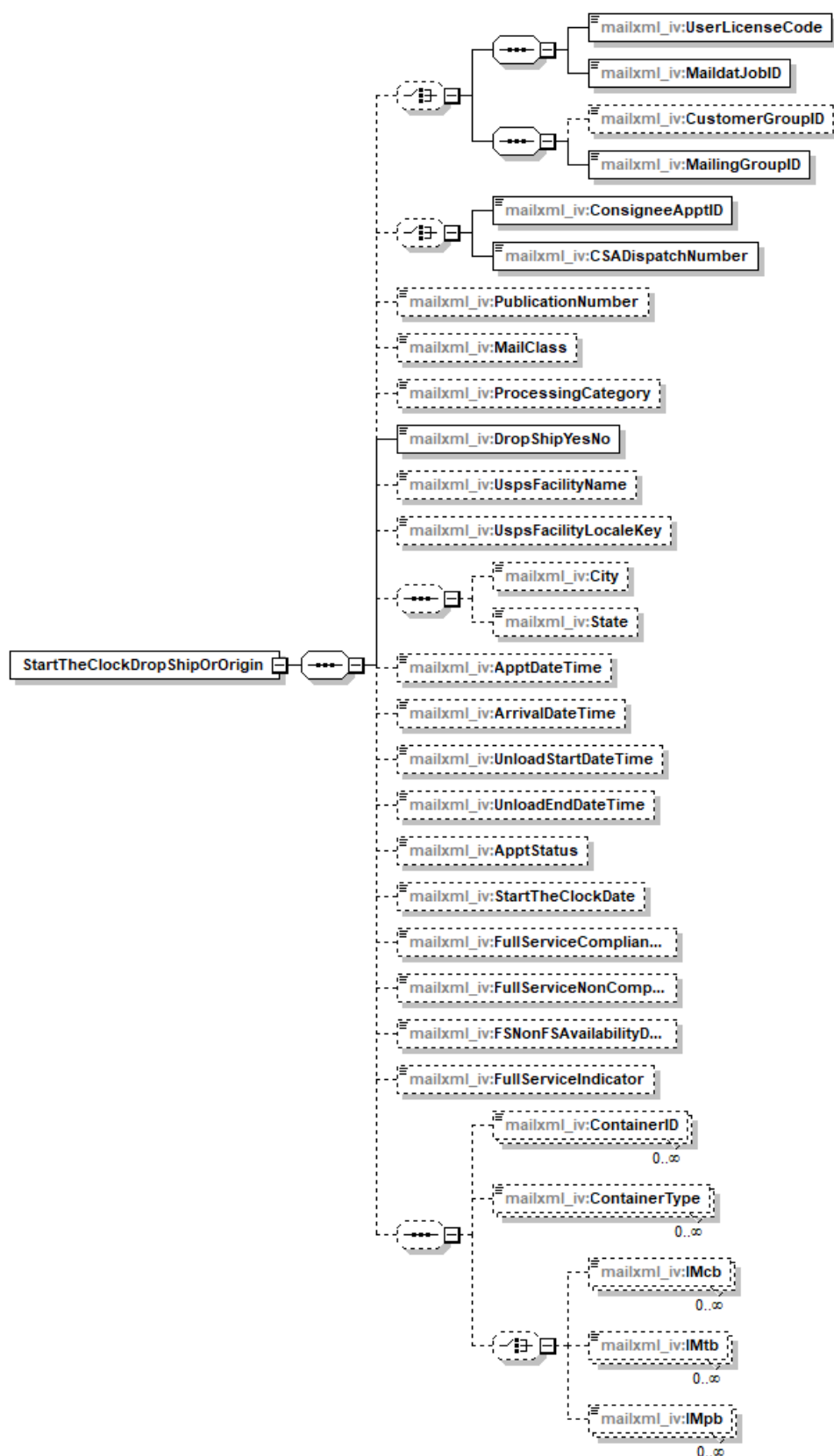


element **StartTheClockDelivery**

<p>diagram</p>	<pre> sequenceDiagram participant StartTheClockDelivery as StartTheClockDelivery participant Seq1 as participant Seq2 as participant SubmittingParty as mailxml_iv:SubmittingParty participant SubmittingSoftware as mailxml_iv:SubmittingSoftware participant DataRecipient as mailxml_defs:DataRecipient participant PushMessageID as mailxml_iv:PushMessageID participant ClockStarted as mailxml_iv:ClockStarted StartTheClockDelivery --> Seq1 Seq1 --> Seq2 Seq2 --> SubmittingParty Seq2 --> SubmittingSoftware Seq2 --> DataRecipient Seq2 --> PushMessageID Seq2 --> Seq3 Seq3 --> ClockStarted </pre> <p>1..∞</p>
<p>namespace</p>	<p>http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv</p>
<p>annotation</p>	<p>documentation Delivery of start the clock information to customer by USPS.</p>

element **StartTheClockDropShipOrOrigin**

diagram



namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
-----------	---

element StartTheClockNotification

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
annotation	documentation Notification from USPS that start the clock information is ready to be picked up.

element StartTheClockPlantLoadBlock

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

element **StartTheClockQueryRequest**

<p>diagram</p>	<pre> xsd:element name="StartTheClockQueryRequest"> <p>Query request for start the clock information.</p> <p>Sequence:</p> <ul style="list-style-type: none"> mailxml_iv:SubmittingParty (optional) mailxml_iv:SubmittingSoftware (optional) mailxml_iv:SubmitterTrackingID (optional) Choice: <ul style="list-style-type: none"> mailxml_iv:ConsigneeApptID mailxml_iv:CSADispatchNumber Choice: <ul style="list-style-type: none"> Choice: <ul style="list-style-type: none"> mailxml_iv:UserLicenseCode mailxml_iv:MaildatJobID Choice: <ul style="list-style-type: none"> mailxml_iv:CustomerGroupID mailxml_iv:MailingGroupID mailxml_iv:CustomerAccount (optional) mailxml_iv:LowerDateRange mailxml_iv:UpperDateRange mailxml_iv:retrieveDataBy </pre>
<p>namespace</p>	<p>http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv</p>
<p>annotation</p>	<p>documentation Query request for start the clock information.</p>

element StartTheClockQueryResponse

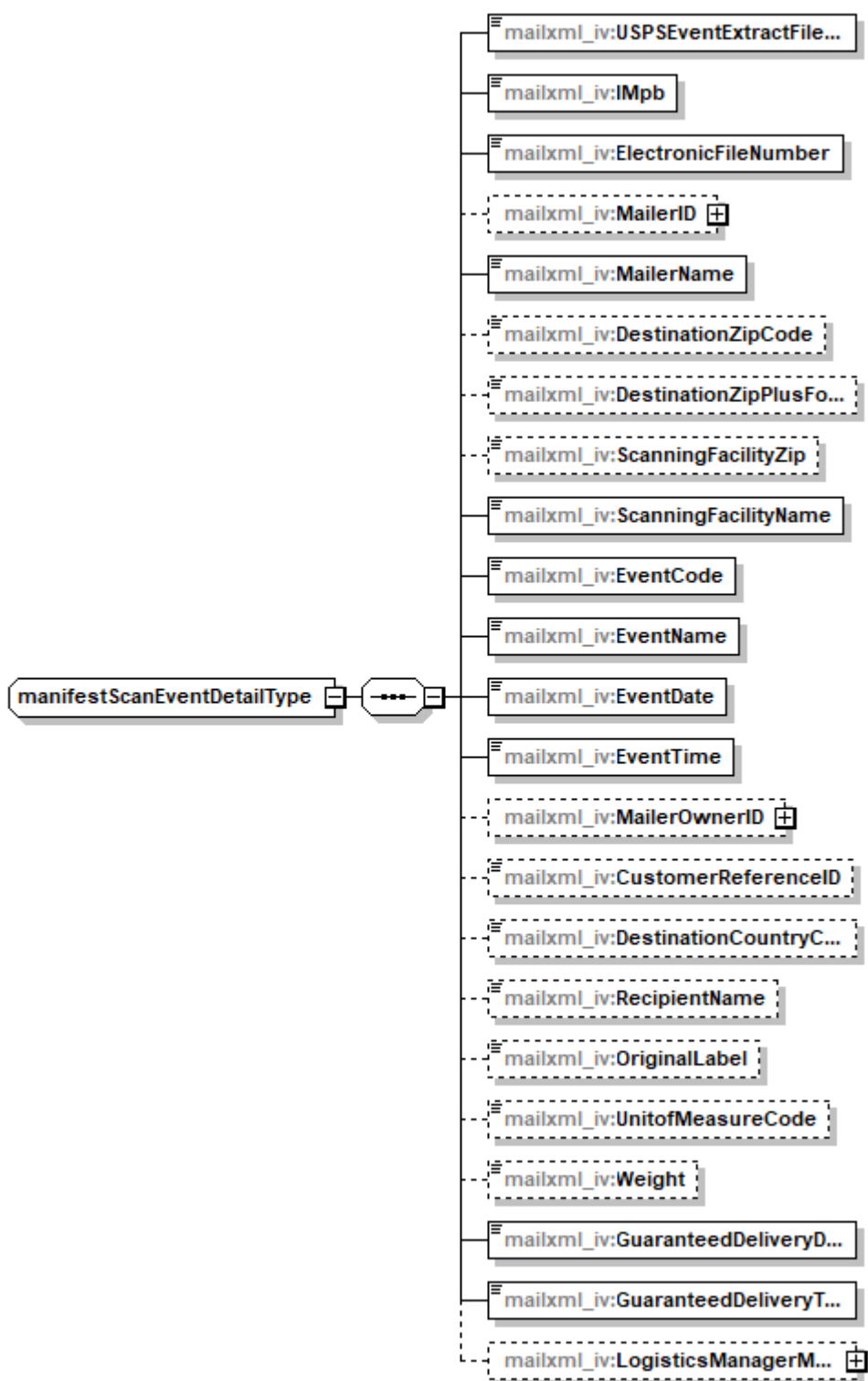
diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
annotation	documentation Response to the query for start the clock information.

complexType clockStartedType

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType manifestScanEventDetailType

diagram



namespace

http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType manifestScanNotificationDataType

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType manifestScanQueryType

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType MPSNotificationDataType

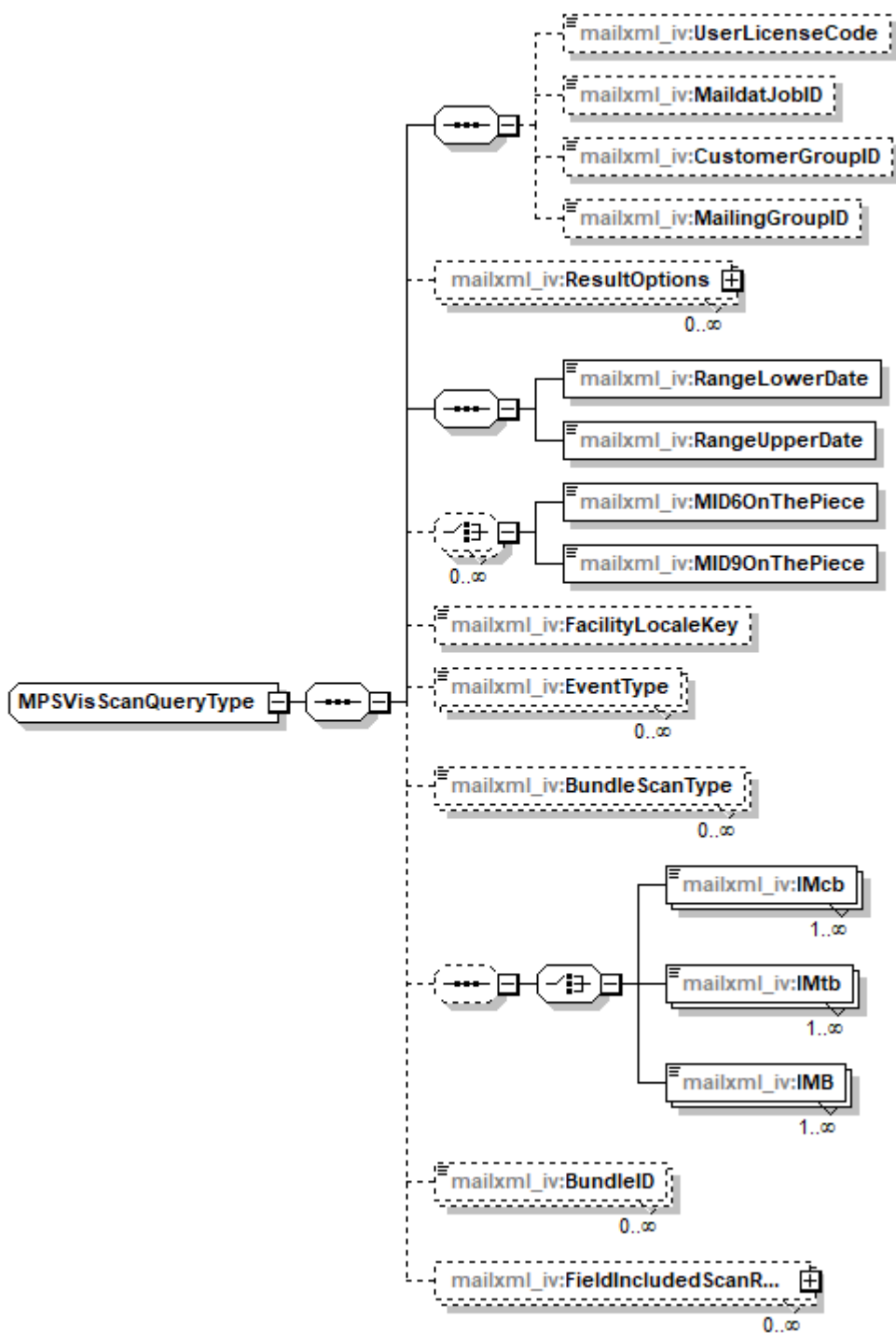
diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType MPSRequestTypeType

diagram	
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType **MPSVisScanQueryType**

diagram

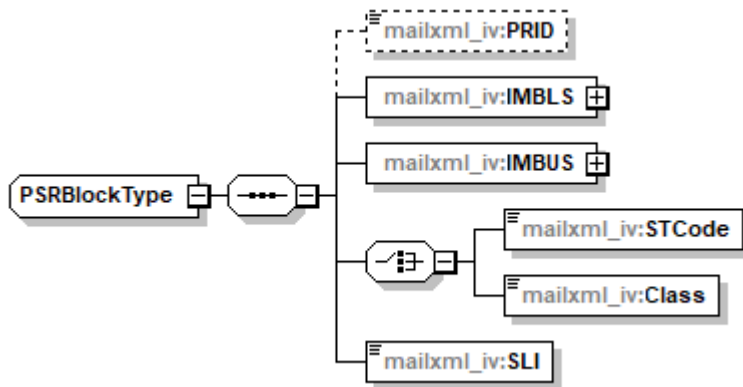


namespace

http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType **PSRBlockType**

diagram

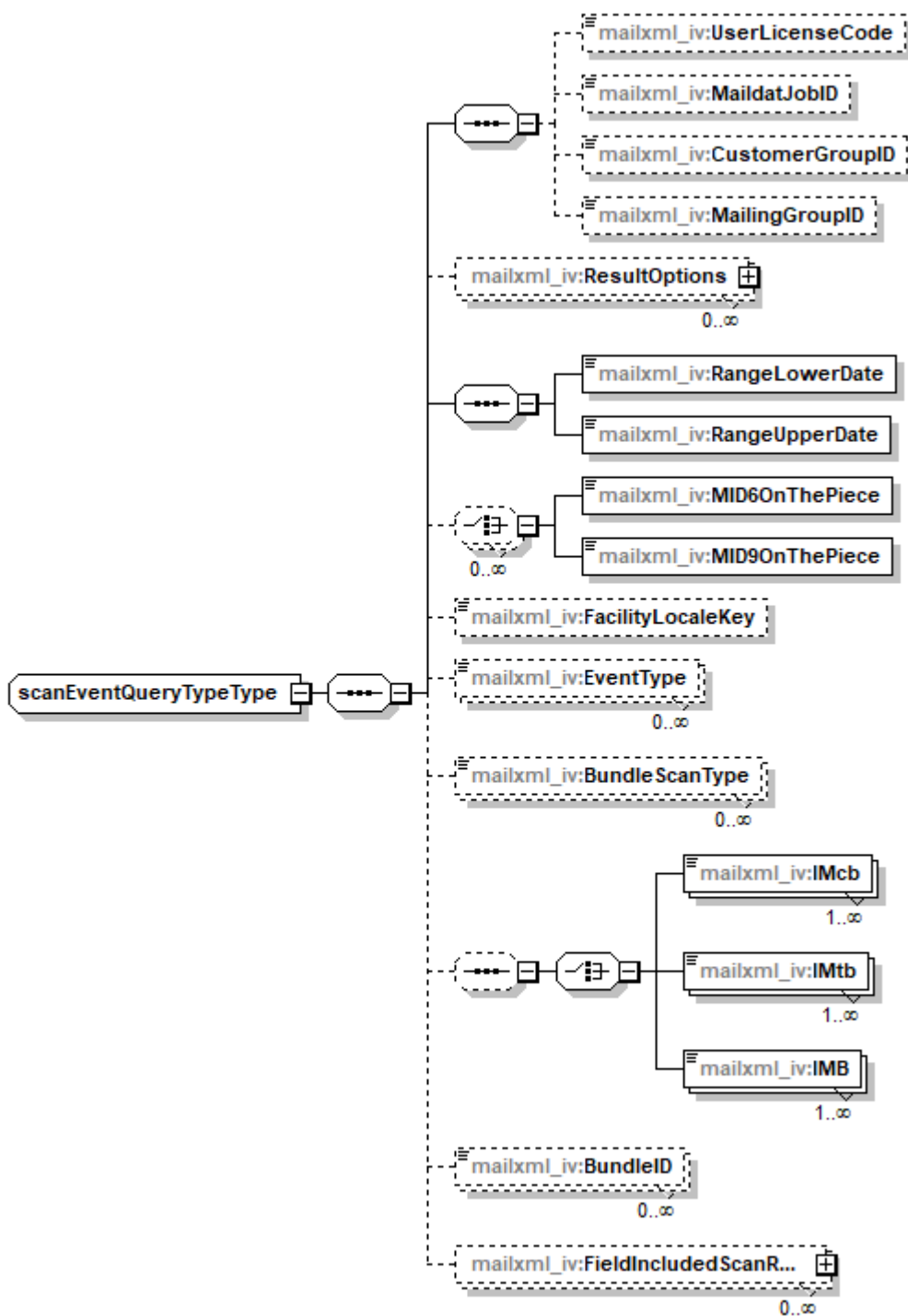


namespace

http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType **scanEventQueryType**

diagram



namespace

http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

complexType **ScanEventResultOptionsType**

diagram	<pre> sequenceDiagram participant A as ScanEventResultOptionsType participant B as mailxml_iv:IMcb participant C as mailxml_iv:IMtb participant D as mailxml_iv:IMB participant E as mailxml_iv:IMpb A --> B A --> C A --> D A --> E </pre>
namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv

simpleType **eDocTypeType**

namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
type	restriction of xs:string

simpleType **handlingEventTypeType**

namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
type	restriction of xs:string

simpleType **mailObjectTypeType**

namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
type	restriction of xs:string

simpleType **recipientRoleType**

namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
type	restriction of xs:string

simpleType **scanEventCodeType**

namespace	http://delivery-tech.org/Specs/mailxml25.4/mailxml_iv
type	restriction of xs:string