

ONE Record Data Model

Ontology v1.1 changelog

June 2021



Data properties specifications in the ontology

Ontology allows to:

- Specify the data type (e.g. Integer, Double, etc.)
- Add length requirements for strings – min and max
- Add maximum value for numerals data properties that can be the equivalent of length requirements (e.g. Max = 999 is the same as max number of digits = 3)
- Add regex constraints – e.g. alphanumeric is [a-zA-Z0-9]

Limits:

- As of today, these specifications are in the ontology but the “direct” implementation from the ontology needs to be looked at

Changes on the Data model

Current changes on the DM

Added on the
ontology v1.1

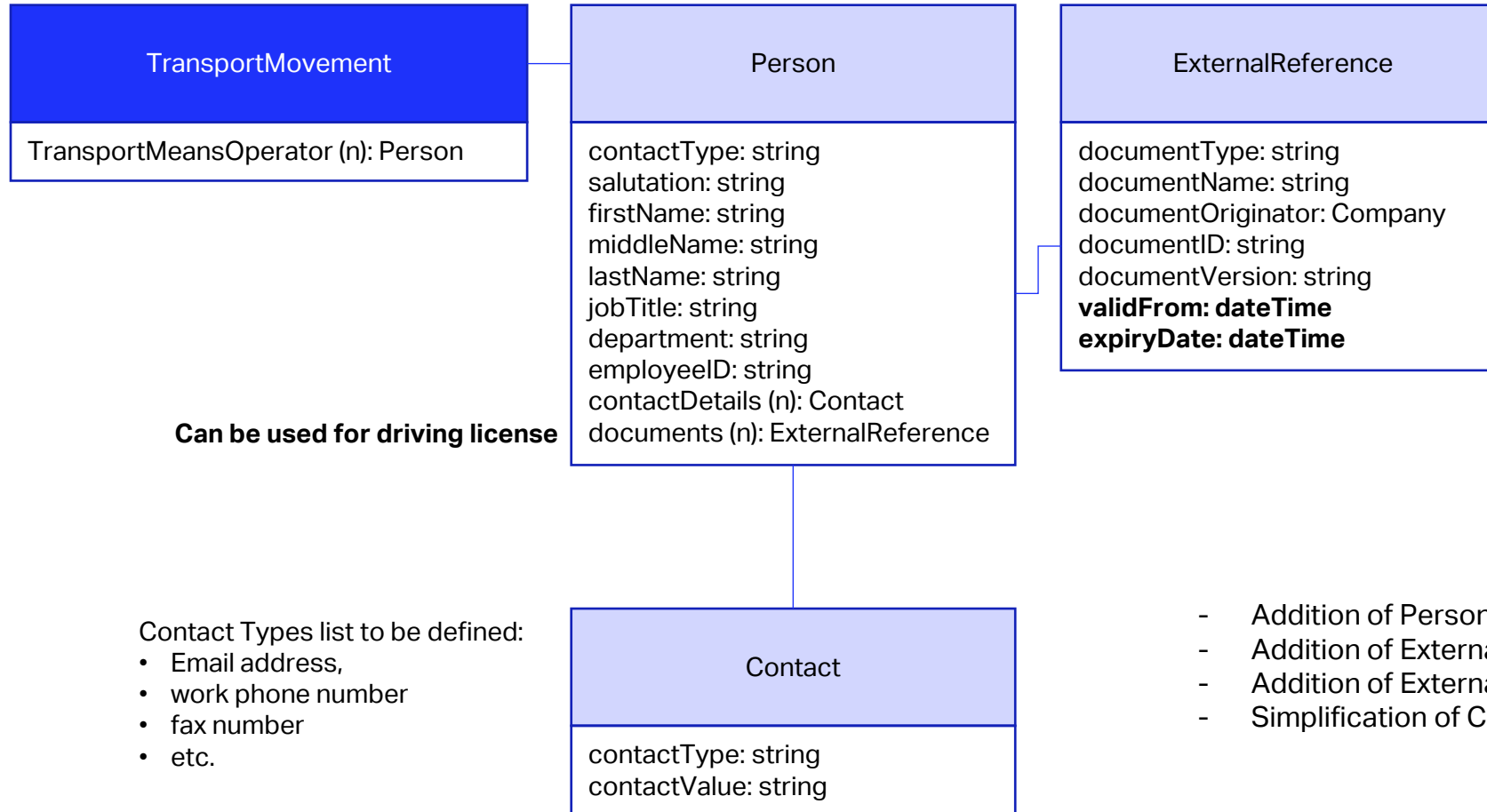
- Added *accountingInformation* (string) on Waybill object
 - Added *documents* (ExternalReference) on Person object
 - Removed ULD/*contour* from the pdf version (was already removed from the XLS)
 - Piece/securityStatus: Renamed to securityDeclaration to fit with the dedicated object
 - Added Piece/shipment
 - Removed Piece/*additionalSecurityInfo* as it is in the SecurityDeclaration object now (was already in XLS)
 - BookingOptionRequest:parties changed to a set of parties (was 1 before)
 - Added waybillType: "Direct"
 - Proposal to add: performedByPerson of type Person on the Event
-
- Check for plural form of data properties
 - Check reference of objects when 2 objects are linked
 - Change datatype to string when there are digits that can start with 0s

Check reference of objects when 2 objects are linked

- Added Characteristics/product
- Added Piece/shipment
- Added CO2Emissions/transportMovement
- Added CustomsInfo/piece
- Added PackagingType/piece
- Added Product/isInItems
- Added Product/isInPieces

Focus on *driver* use case for *Person*

Added on the
ontology v1.1



Contact Types list to be defined:

- Email address,
- work phone number
- fax number
- etc.

- Addition of Person/documents
- Addition of ExternalReference/validFrom
- Addition of ExternalReference/expiryDate
- Simplification of Contact object, removal of ContactOther object

Parties and companies

Added on the
ontology v1.1

Company
Company details

otherParty Party
partyRole: string partyDetails: Company

Piece
shipper: Company parties (n): Party

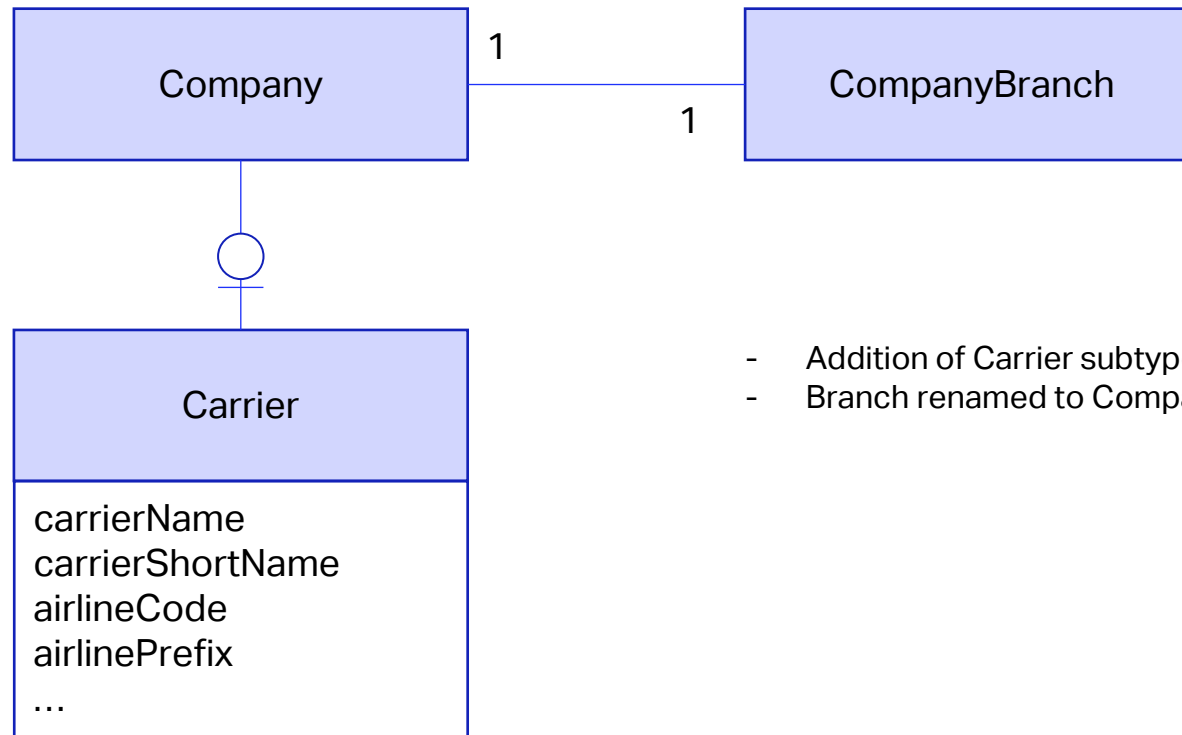
Shipment
shipper: Company forwarder: Company parties (n): Party

BookingOption
carrier: Company parties (n): Party

- Renamed otherParty to Party
- Simplification of parties on the Piece, Shipment and BookingOption objects. Remaining parties are displayed above, previous ones are set as deprecated in ontology v1.1

Company subtypes and CompanyBranch

Added on the
ontology v1.1



- Addition of Carrier subtype of Company, airlineCode and airlinePrefix moved to Carrier subtype
- Branch renamed to CompanyBranch

Transport Means

Added on the
ontology v1.1

TransportMovement

transportCompany: Company
vehicleType: string
vehicleModel: string
vehicleRegistration: string
vehicleSize: string
typicalFuelConsumption: Value
transportSegment: TransportSegment
typicalCO2Coefficient: Value

- Addition of vehicleModel: string (e.g. "A220-100")

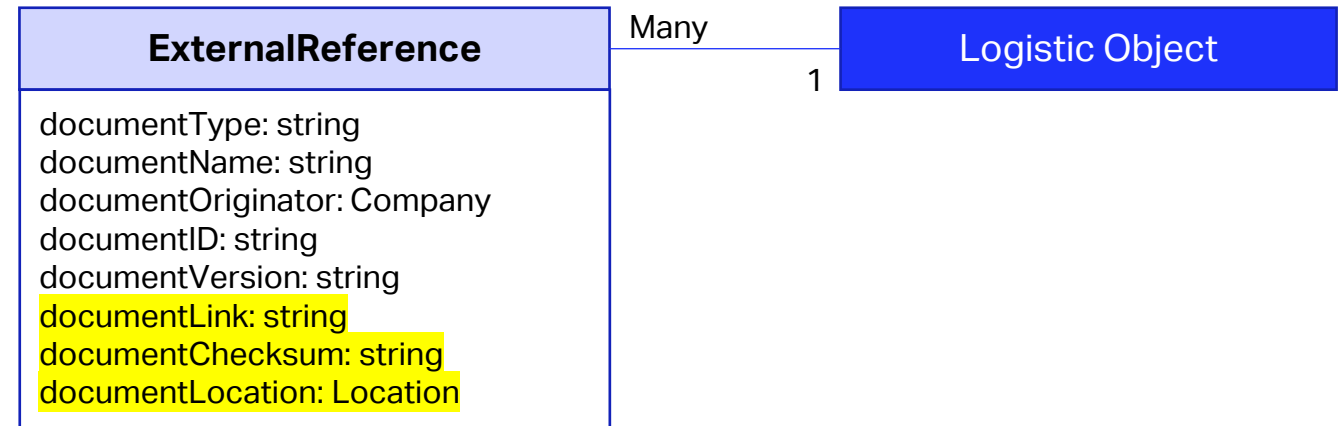
Attaching files to data

Added on the
ontology v1.1

Requirement: attach documents to ONE Record (e.g. when fully digital process is not possible today)

Solution:

- Use **ExternalReference** with additional data properties:
 - documentLink
 - documentChecksum
 - documentLocation
- It should be linkable to any LO as Events



In yellow are the new fields

Transport Movement

Transport approach

Added on the
ontology v1.1

- TransportSegment renamed to TransportMovement:
 - TransportSegment is set as deprecated in the ontology
 - Compared to TransportSegment a few data properties were removed: movementType, segmentLevel, arrivalDate, departureDate
- Addition of BookingSegment to replace the original TransportSegment linked to BookingOptionRequest and BookingOption
- Addition of MovementTimes to simplify the identification of different times in the TransportMovement (eg. Estimated Departure Time, Actual Arrival Time, etc.)
- Schedule replaced by BookingTime. Schedule is set as deprecated.
- BookingOptionRequest/schedulePreferences set as deprecated, replaced by BookingOptionRequest/timePreferences
- BookingOption/Schedule set as deprecated, replaced by BookingOption/bookingTimes

Transport approach

Added on the
ontology v1.1

Piece, ULD, etc.

TransportMovement

departureLocation: Location
arrivalLocation: Location
transportIdentifier: string
seal: string
distanceMeasured: Value
distanceCalculated: Value
transportMeans: TransportMeans
transportMeansOperators (n): Person
fuelType: string
fuelAmountMeasured: Value
fuelAmountCalculated: Value
payload: Value
cO2Emissions: CO2Emissions
transportedUlds (n): ULD
transportedPieces (n): Piece
externalReference (n): ExternalReference
events (n): Event
modeQualifier: string
modeCode: string (Maritime, Rail, etc.)
movementTimes (n): MovementTimes
unplannedStop : string

1

Many

MovementTimes

timeType: string (Actual, Estimated, Scheduled)
direction: string (Inbound, Outbound)
movementTimestamp: dateTime
movementMilestone: string

BookingSegment

departureLocation: Location
arrivalLocation: Location
preferredTransportId: string
bookingOptions: BookingOption
requests: BookingOptionRequest

1

many

BookingOption

bookingSegment:
BookingSegment
...

1

BookingOptionRequest

bookingSegment:
BookingSegment
...

many

Renaming of Schedule to BookingTimes

Added on the
ontology v1.1

