

UN/CEFACT 2020 FORUM

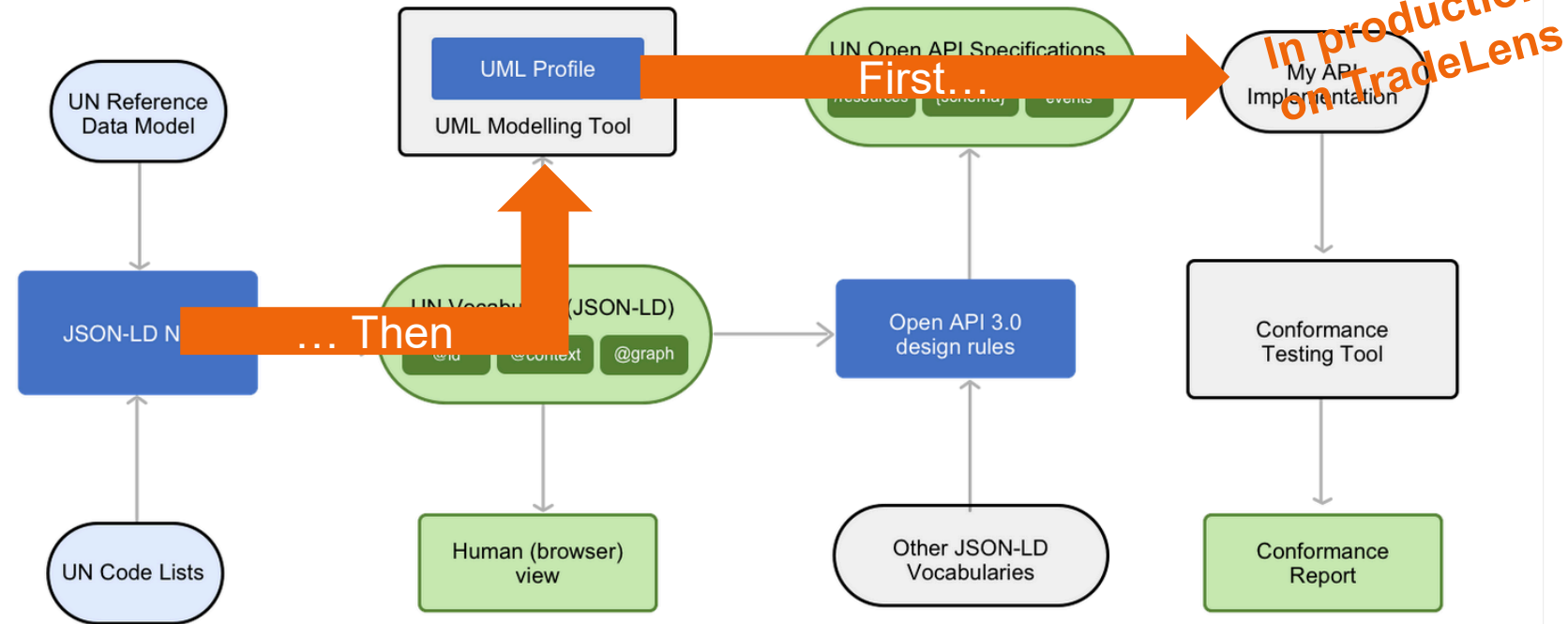
OPENING SESSION: RDM2API PROJECTS STATUS UPDATE

CASE: DESIGNING THE BILL OF LADING SCHEMA

5-OCT-2020

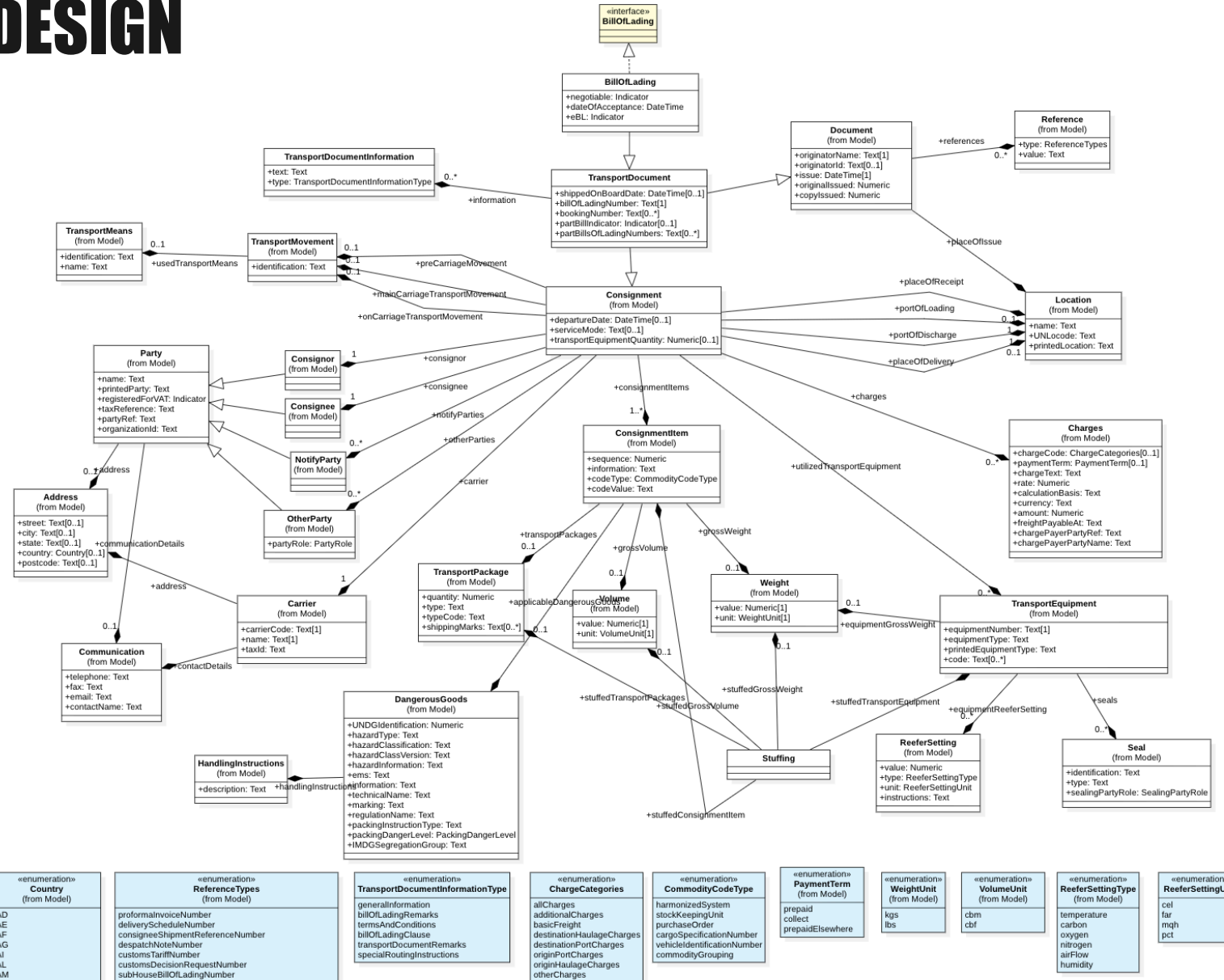
PRODUCTION-GRADE DEVELOPMENT SINCE LONDON (OCT 2019)

- RDM2API really gained traction a year ago in London.
- From this I've defined the BL schema (https://github.com/nissimsan/doc_generation), stable in Production on TradeLens. Strengthening our edi3 method: nothing beats a real, demanding customer.
- More recently the model export has improved significantly. Somewhat reverse order, but I was in a hurry – art of the possible! :)



RDM2 API Methodology

MODEL DESIGN



Model Explorer

- Document Generator
 - Shipping Instructions
 - Sea Waybill
 - Certificate Of Origin
 - Commercial Invoice
 - Bill Of Lading
 - BillOfLading
 - BillOfLading
 - Model
 - Verify Copy
 - Core
 - Feeder Bill Of Lading
 - House Bill Of Lading
 - Arrival Notice
 - Booking Confirmation
 - Export Order

Editors

Properties

name BillOfLading

defaultDiagram

Documentation

SWAGGER REPRESENTATION

BillOfLading ▾ 1.1.3 ▾

```
BillOfLading ▾ {
  description:
    Bill of Lading document.

  originatorName*
    string
    The proper name (human readable) of the entity that published this event.

  originatorId
    string
    The party identification code (i.e. SCAC) of the organization publishing the event.

  issue*
    string($date-time)
    A date, time, date time or other date time value for an issuance of this document.

  originalIssued
    number
    The number of originals issued for this document.

  copyIssued
    number
    The number of copies issued for this document.

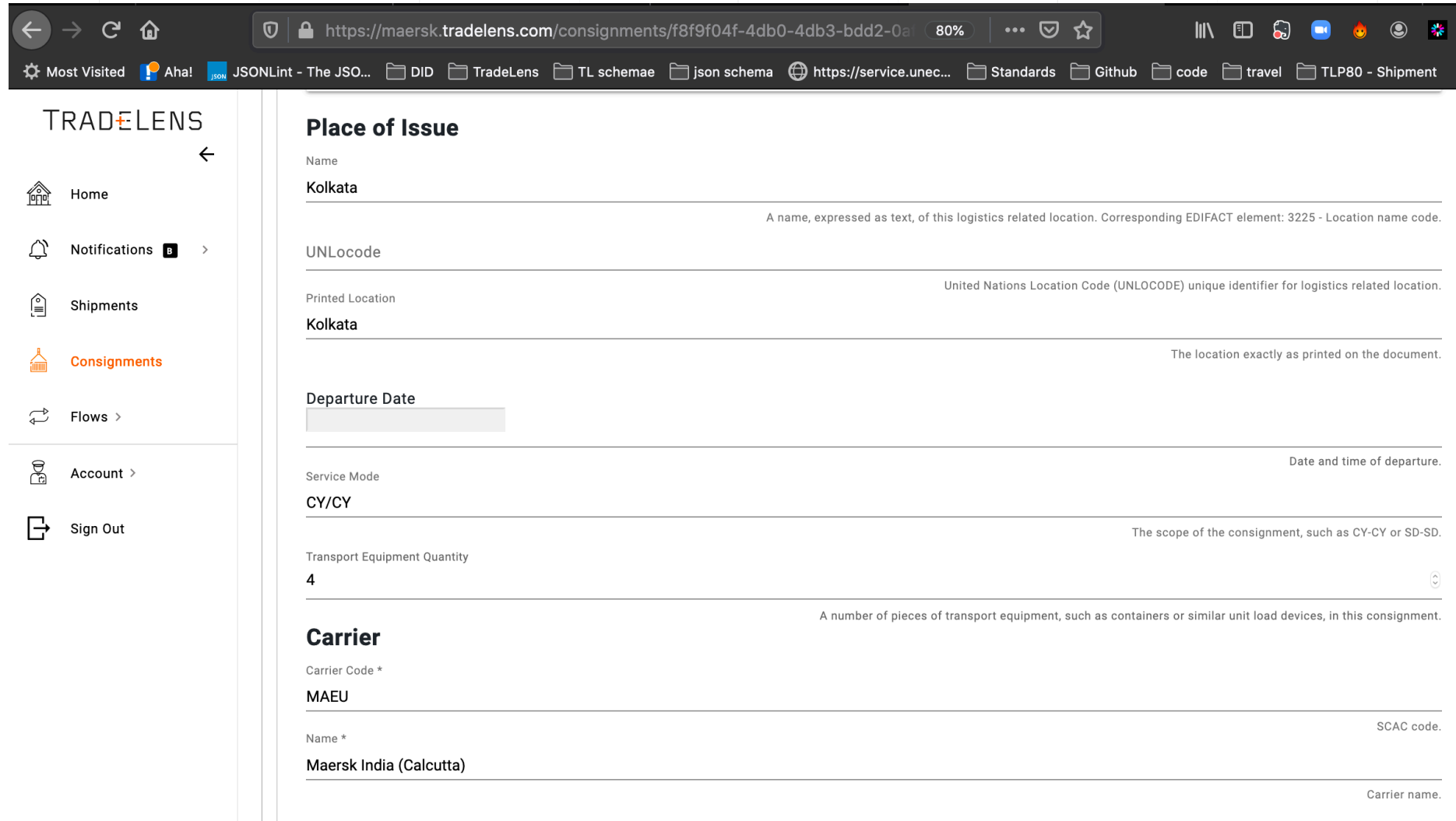
  references
    > [...]
  placeOfIssue
    Location > {...} ←
  departureDate
    string($date-time)
    Date and time of departure.

  serviceMode
    string
    The scope of the consignment, such as CY-CY or SD-SD.

  transportEquipmentQuantity
    number
    A number of pieces of transport equipment, such as containers or similar unit load devices, in this consignment.

  carrier*
    Carrier > {...} ←
  consignor*
    Consignor > {...} ←
```

PRODUCTION EXAMPLE



TRADELENS

- Home
- Notifications **2**
- Shipments
- Consignments**
- Flows >
- Account >
- Sign Out

Place of Issue

Name
Kolkata

A name, expressed as text, of this logistics related location. Corresponding EDIFACT element: 3225 - Location name code.

UNLocode
Kolkata

United Nations Location Code (UNLOCODE) unique identifier for logistics related location.

Printed Location
Kolkata

The location exactly as printed on the document.

Departure Date

Date and time of departure.

Service Mode
CY/CY

The scope of the consignment, such as CY-CY or SD-SD.

Transport Equipment Quantity
4

A number of pieces of transport equipment, such as containers or similar unit load devices, in this consignment.

Carrier

Carrier Code *
MAEU

SCAC code.

Name *
Maersk India (Calcutta)

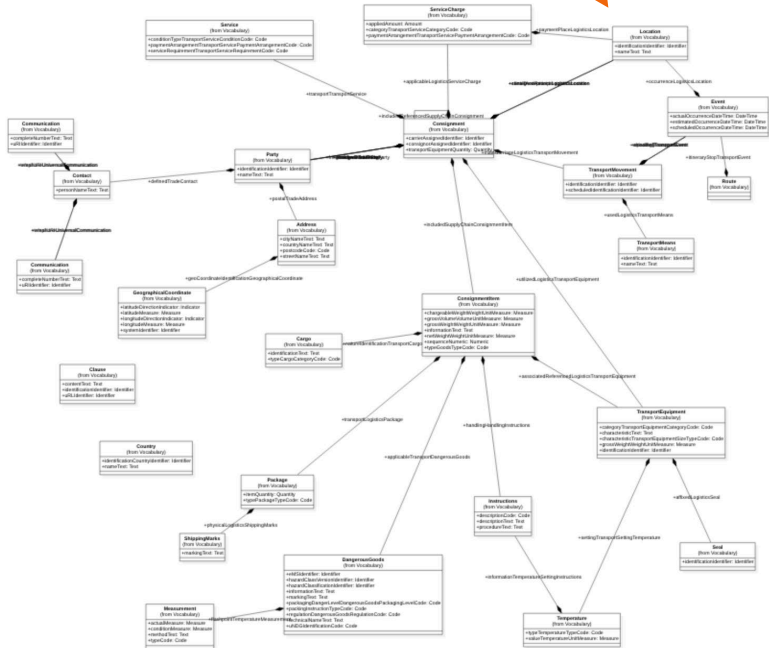
Carrier name.

(Selected data elements shown due to confidentiality)

RECENT DEVELOPMENTS

- Building the model by hand was suboptimal.
- Now we have a beautiful jsonld graph exported!
- In the IFTM project we're now re-creating the BL, and we can move to a fully model-driven approach.

- TransportEquipment
- Value
- TradeItem
- Shipment
- Consignment
 - departureDate
 - serviceMode
 - transportEquipmentQuantity
 - carrier (Consignment—Carrier)
 - consignor (Consignment—Consignor)
 - consignee (Consignment—Consignee)
 - notifyParties (Consignment—NotifyParty)
 - freightForwarder (Consignment—FreightForwarder)
 - freightPayer (Consignment—FreightPayer)
 - customsBroker (Consignment—CustomsBroker)
 - shipFromParty (Consignment—ShipFromParty)
 - shipToParty (Consignment—ShipToParty)
 - otherParties (Consignment—OtherParty)
 - placeOfReceipt (Consignment—Location)
 - portOfLoading (Consignment—Location)
 - portOfDischarge (Consignment—Location)
 - placeOfDelivery (Consignment—Location)
 - preCarriageMovement (Consignment—TransportMovement)
 - mainCarriageTransportMovement (Consignment—TransportMovement)
 - onCarriageTransportMovement (Consignment—TransportMovement)
 - consignmentItems (Consignment—ConsignmentItem)
 - utilizedTransportEquipment (Consignment—TransportEquipment)
 - charges (Consignment—Charges)
 - cargoInformation (Consignment—CargoInformation)
 - transportPackages (Consignment—TransportPackage)
 - grossWeight (Consignment—Weight)



```

https://edi3.org/vocabulary/unece.jsonld
JSON Raw Data Headers
Save Copy Pretty Print
{
  "@context": {
    "schema": "http://schema.org/",
    "unece": "https://unece.org/vocab#",
    "rdf": "http://www.w3.org/1999/02/22-rdf-syntax-ns#",
    "rdfs": "http://www.w3.org/2000/01/rdf-schema#",
    "cefact": "https://edi3.org/cefact#",
    "xsd": "http://www.w3.org/2001/XMLSchema#",
    "dc": "http://purl.org/dc/elements/1.1/"
  },
  "@graph": [
    {
      "@id": "unece:AccountingAccount",
      "@type": "rdfs:Class",
      "rdfs:comment": "A specific trade account for recording debits and credits to general accounting, cost accounting or budget accounts",
      "unece:cefactElementMetadata": [
        {
          "@id": "cefact:Trade_AccountingAccount.Details",
          "@type": "unece:AggregateBIE",
          "unece:cefactUNID": "cefact:UN01004522",
          "rdfs:comment": "A specific trade account for recording debits and credits to general accounting, cost accounting or budget accounts",
          "unece:cefactBusinessProcess": "Buy-Ship-Pay"
        }
      ]
    },
    {
      "@id": "unece:Accreditation",
      "@type": "rdfs:Class",
      "rdfs:comment": "A certified recognition that provides evidence of a level of competency in a given area, such as certifying a level of competency",
      "unece:cefactElementMetadata": [
        {
          "@id": "cefact:Certified_Accreditation.Details",
          "@type": "unece:AggregateBIE",
        }
      ]
    }
  ]
}

```

THANK YOU

Get involved on edi3.slack.com and github.com/edi3

Please refer to <https://edi3.org/json-ld-ndr/> for more.

And don't hesitate to reach out to me on the edi3 slack or on:

nis.jespersen@gtdsolution.com

github.com/nissimsan/

[linkedin.com/in/nis-jespersen-476542](https://www.linkedin.com/in/nis-jespersen-476542)

<https://www.tradelens.com/>