

# WEB SERVICE API

SMDG Workshop

# WORKSHOP

- Goals:
  - Exchange learnings
  - gather requirements for Voyage Schedule API

# TECH BEHIND API

- What's an API?
  - EDIFACT vs Web Service
- What's a Web Service API?
  - Based on HTTP
- Which technology & design is connected?
  - Data model
  - Swagger
- Examples
  - SkyScanner
  - Google Flights

# RESTFUL WEB SERVICE API

- RESTFUL = Resource based and stateless
- What's stateless?
- What's a resource?





# WHAT DEFINES A CONTAINER?

- Problems of defining a Data Model

# SMDG PILOT

- EDIFACT Data Model → Voyage Schedule API



PILOT NO.1: VESSEL SCHEDULE API

- IFTSAI\_D11B
  - UNA [0..1]
  - UNB
  - UNG [0..1]
  - UNH
  - BGM
  - DTM [0..9]
  - FTX [0..99]
  - GEI [0..1]
  - Group1 [0..9]
  - Group2 [0..9]
  - Group3 [0..999]
  - Group4 [0..999]
  - Group8 [0..9]
  - Group10 [0..9]
  - UNT
  - UNE [0..1]
  - UNZ

- IFTSAI\_D11B
  - Group4 [0..999]
    - TDT
    - DTM [0..9]
    - TSR [0..9]
    - RFF [0..9]
    - FTX [0..9]
    - EQD [0..99]
    - QTY [0..9]
    - MEA [0..9]
  - Group5 [0..999]
    - LOC
    - RFF [0..9]
    - FTX [0..9]
  - Group6 [0..9]
    - DTM

Vessel and Voyage

|

0..999

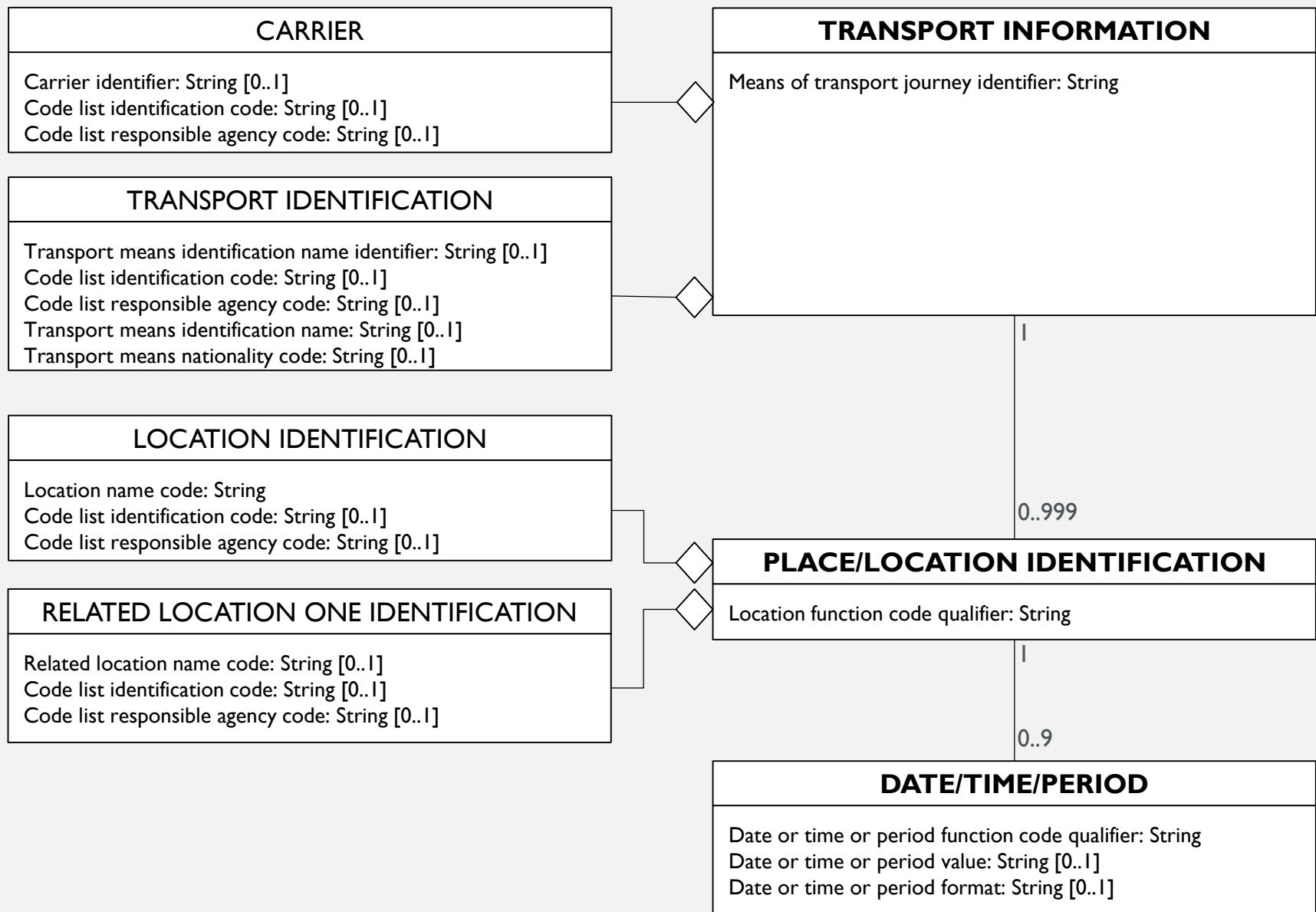
Location

|

0..9

Date/Time

**PILOT NO.1: VESSEL SCHEDULE API**





```

1 swagger: '2.0'
2 info:
3   title: Voyage Schedule
4   description: >-
5     This API provides the voyage schedules of a carrier. It is based on the
6     UN/CEFACT EDIFACT model. The API will be extended for more use cases.
7   version: 0.1.0
8   host: api.example.com
9   basePath: /transport/v1
10  schemes:
11    - https
12  paths:
13    /voyageSchedules/findByLocation:
14      get:
15        tags:
16          - Schedule
17        summary: Returns a list of Voyage Schedules for a specific location.
18        description: >-
19          Find all voyages for a specific location. Returns an array.</br>
20          <b>Examples:</b></br> <b><i>find voyages for Hamburg,
21          Germany</i></b></br>
22          /voyageSchedules/findByLocation?locationNameCode=DEHAM </br></br>
23          <b><i>find voyages for Container Terminal Altenwerder in Hamburg,
24          Germany</i></b></br>
25          /voyageSchedules/findByLocation?locationNameCode=DEHAM&relatedLocationNameCode=CTA
26        produces:
27          - application/json
28        parameters:
29          - name: locationNameCode
30            in: query
31            description: The UN location code (e.g. "DEHAM")
32            required: true
33            type: string
34          - name: relatedLocationNameCode
35            in: query
36            description: The 1st related Location code
37            required: false
38            type: string
39        responses:
40          '200':
41            description: OK
42            schema:
43              type: array
44              items:
45                $ref: '#/definitions/TransportInformation'
46          '400':
47            description: Invalid UN location code and/or related location code supplied
48          '404':

```

# Voyage Schedule 0.1.0

[ Base URL: api.example.com/transport/v1 ]

This API provides the voyage schedules of a carrier. It is based on the UN/CEFACT EDIFACT cases.

## Schemes

HTTPS

## Schedule

**GET** /voyageSchedules/findByLocation Returns a list of Voyage Schedules

**GET** /voyageSchedules/findByID/{meansOfTransportJourneyId}

**GET** /voyageSchedules/findByStartAndDestination Returns a list of location.

## Models

TransportInformation >

Carrier >