

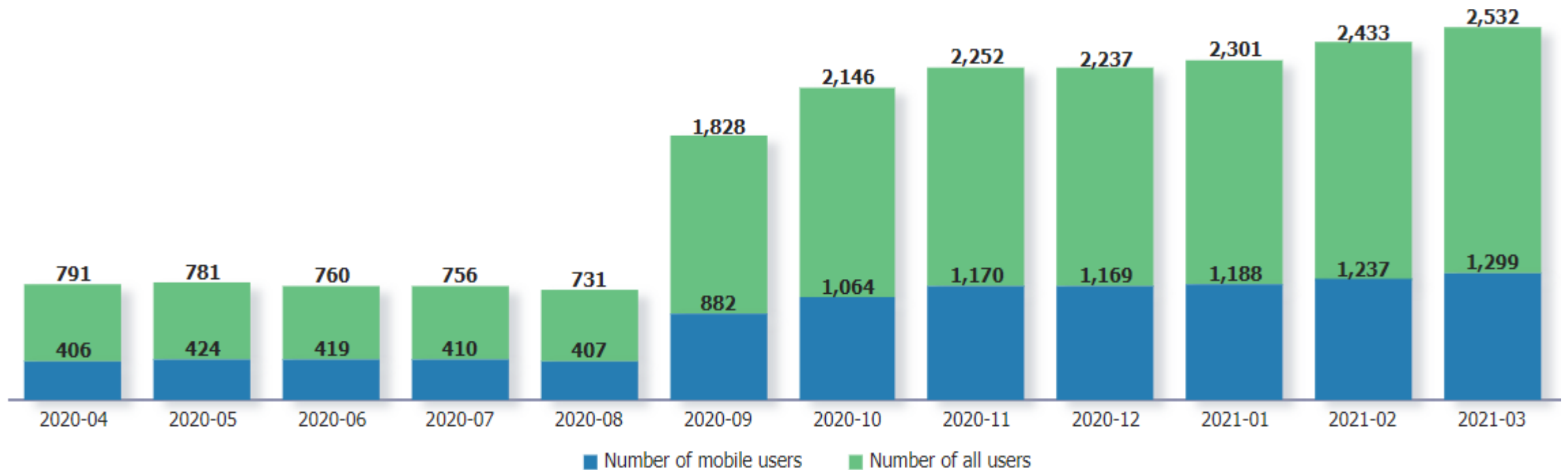
 **RNE TIS**
Train Information System

TIS-2020

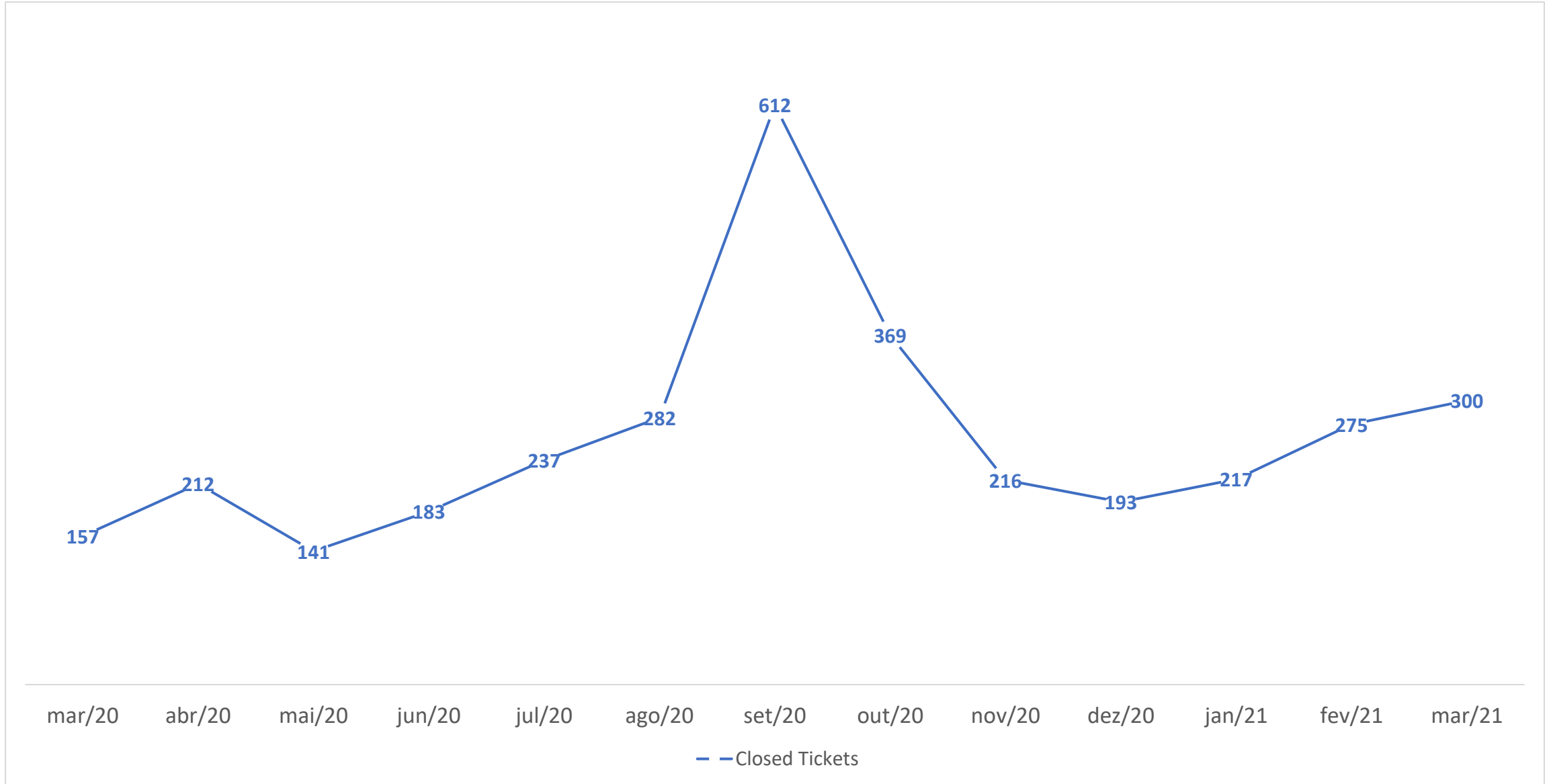
<https://vimeo.com/405019851>

TIS & TIS-2020 User Login

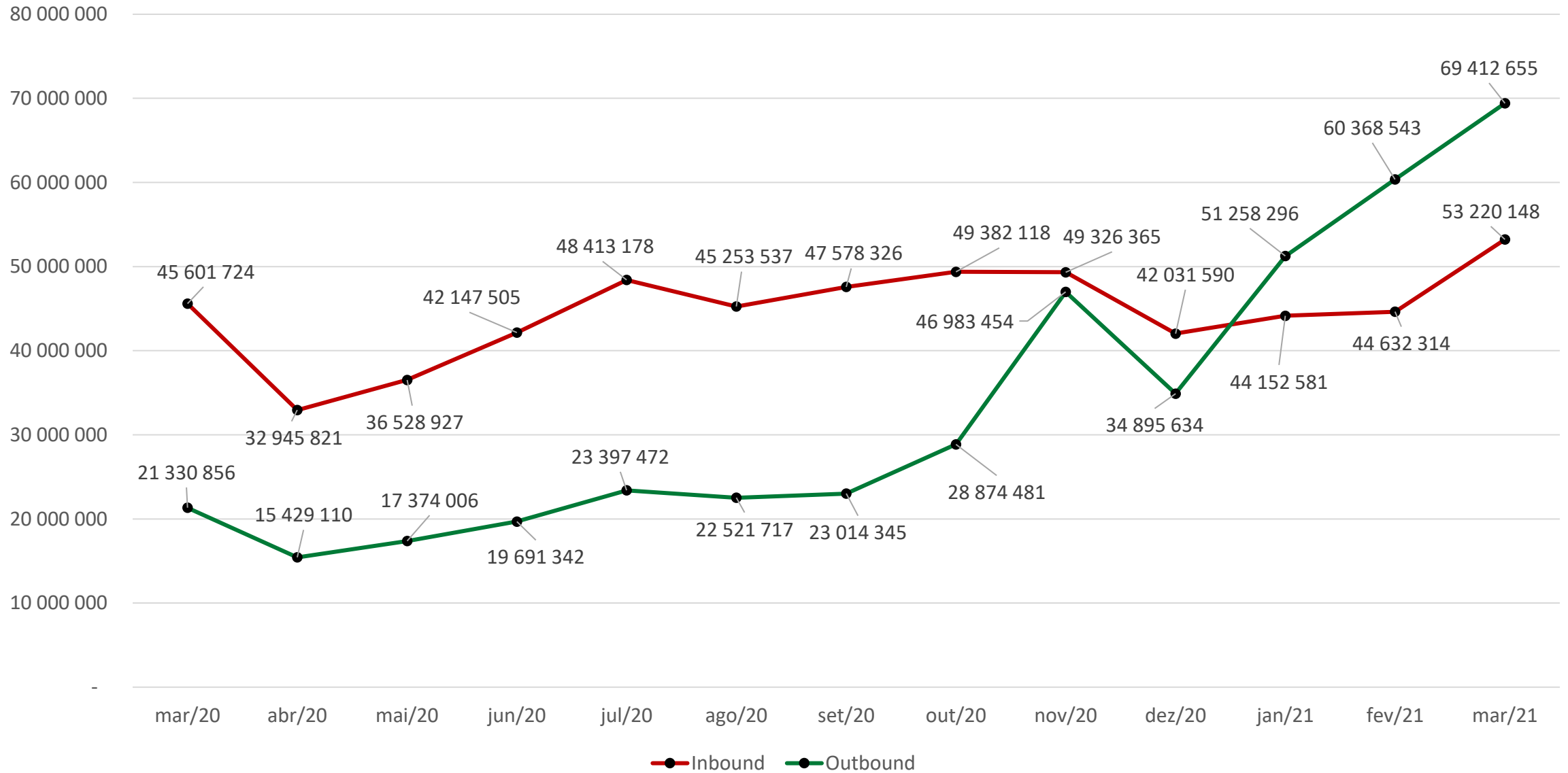
Number of users for period of last 13 months



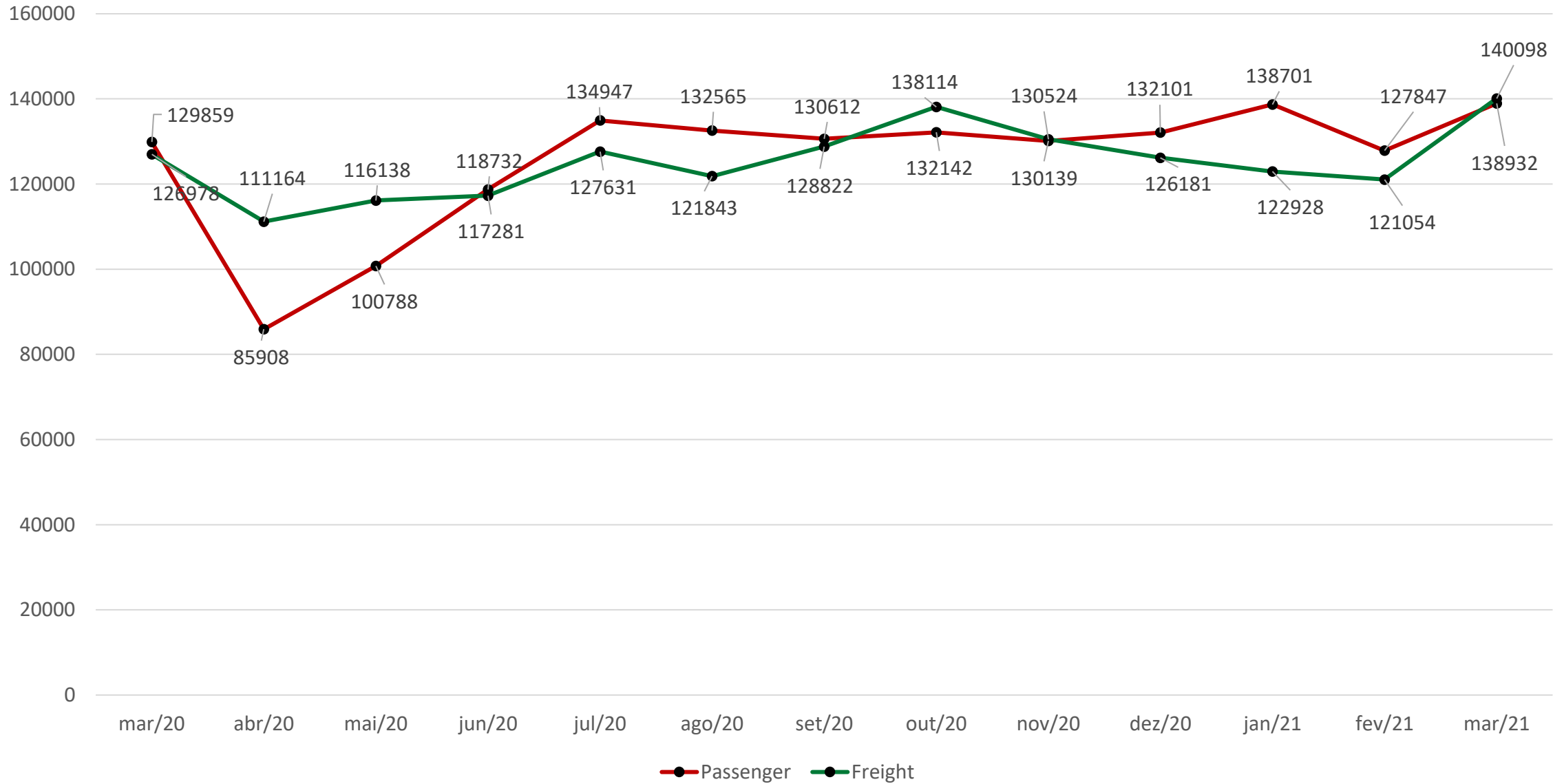
TIS Support Tickets



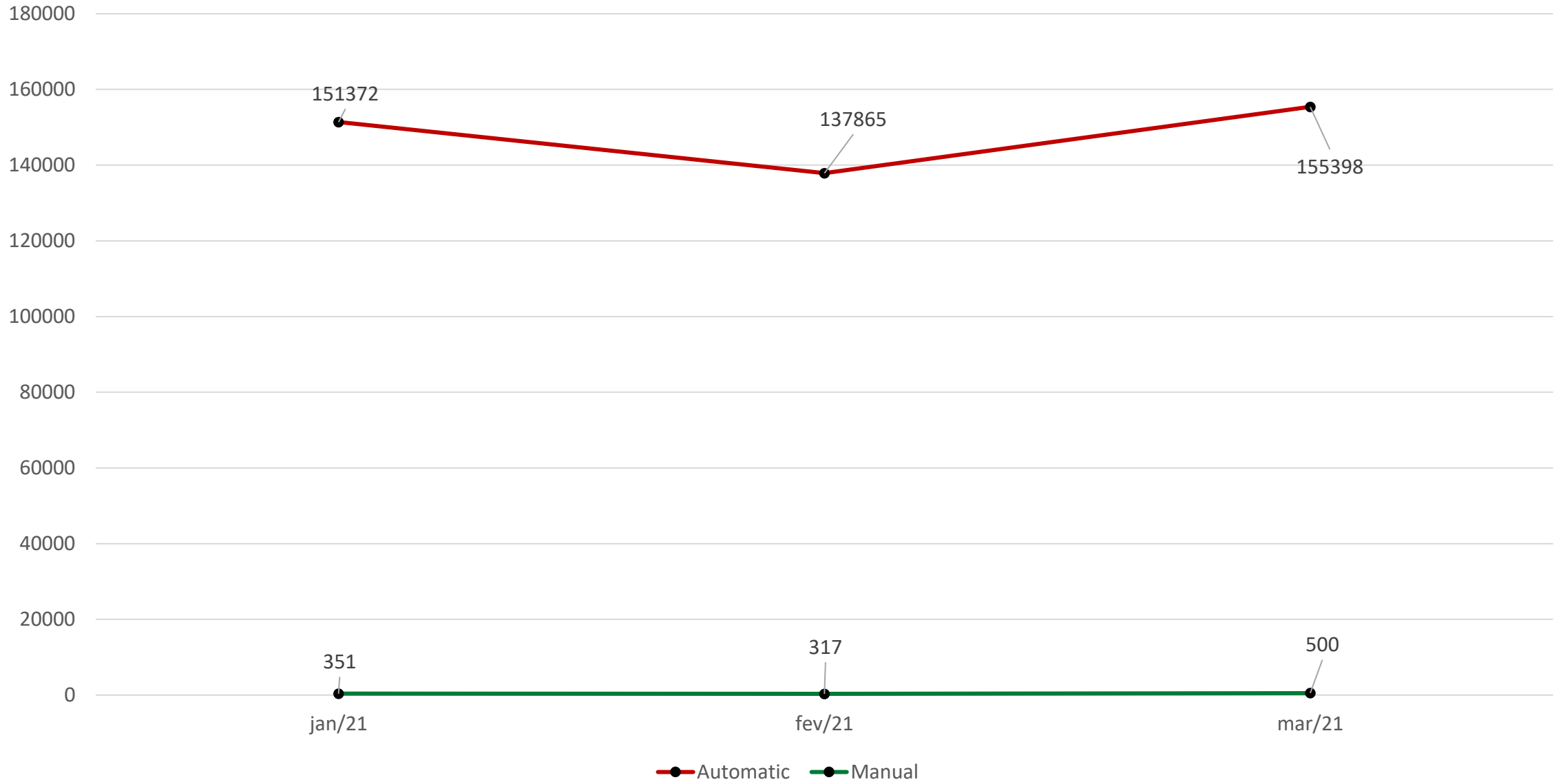
TIS Message Processing



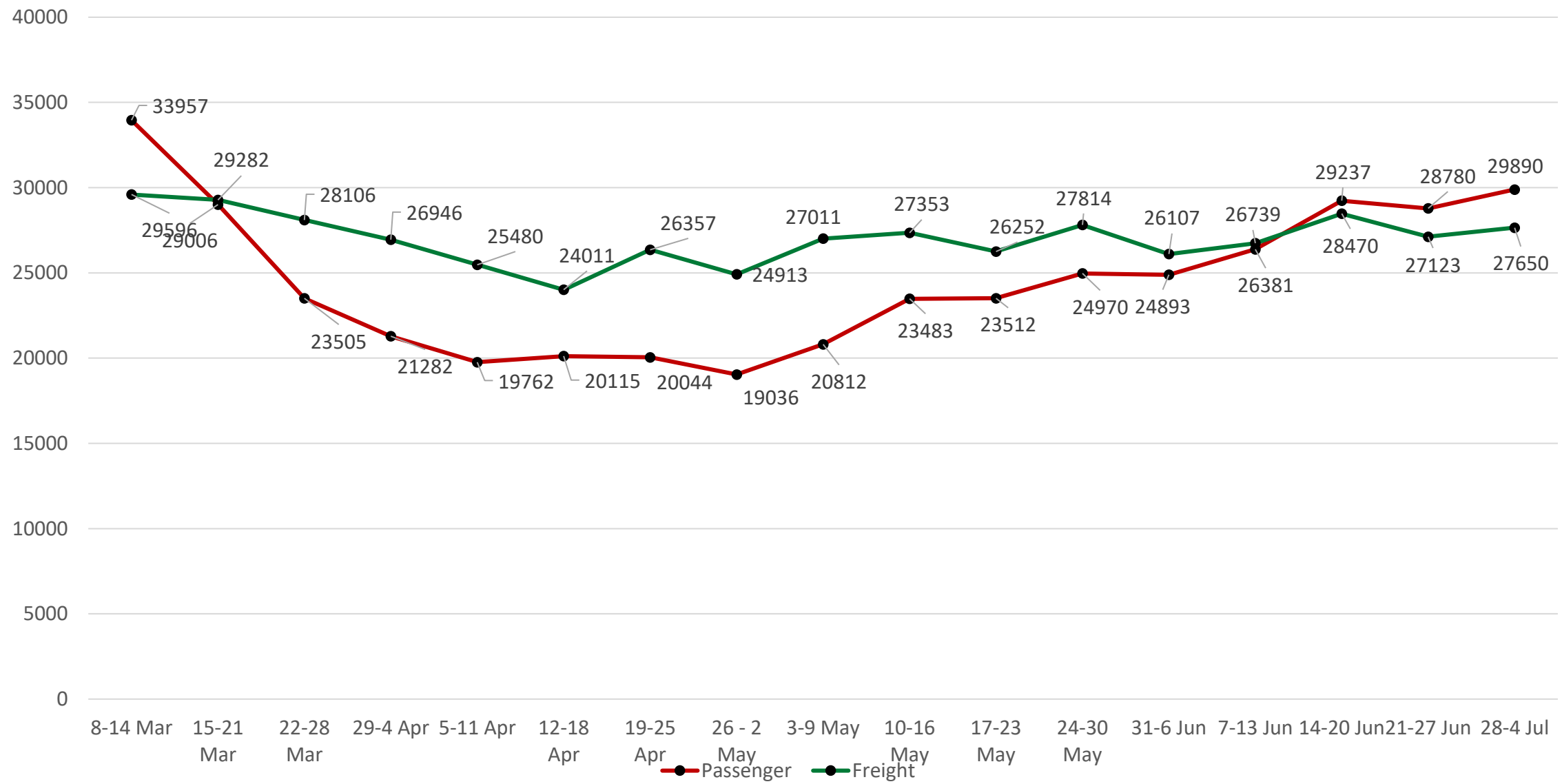
TIS-2020 International Trains



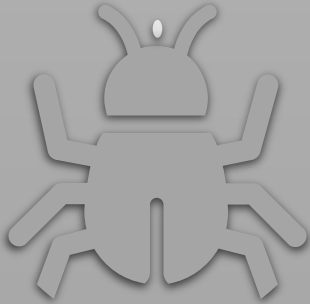
TIS-2020 Linked Trains



TIS-2020 International Trains (During Covid-19 March - May)



TIS-2020 Quick Facts



110 Bugs
Identified and
Resolved before
Go-Live



Over 1.300
Tickets
Resolved the
first 6 months
of operation



Over 1.000 new
users created
the first 6
months of
operation



3.000.000
Incoming
3.000.000
Outgoing
Messages
Processed Daily



2.300 Unique
Users per
month

The new TIS – search Engine

ORNE TIS
Train Information System

Trains | Diagrams | Configuration | Incident Management | admin

Train Search

Passenger | Freight | Others | National | International | only running

Search Train Number: 4232 Results

42138 [Link-Search](#) [Details](#)

From	Abzw Sti 4	06.11.2019	19:50	
To	Ludwigshafen (Rhei...	07.11.2019	04:31	08:55 +264 min

7691 [Details](#)

From	Paris-Est	07.11.2019	11:10	11:10 +0 min
To	Strasbourg-Ville - B...	07.11.2019	13:01	

386492 [Details](#)

From	Avignon - Bât Voyag...	07.11.2019	07:51	
To	Chalon-sur-Saône - ...	07.11.2019	14:27	

9863 [Link-Search](#) [Details](#)

From	Montpellier-St-Roch...	07.11.2019	08:51	08:50 +0 min
To	Wannehain - Poste 30	07.11.2019	14:44	

9015 [Details](#)

From	Paris-Nord - Bât Voy...	07.11.2019	09:13	09:12 +0 min
To	Fréthun-Tunnel - Po...	07.11.2019	10:37	10:38 +1 min

2962 [Link-Search](#) [Details](#)

From	Bohumín os.n.	07.11.2019	08:47	08:48 +1 min
To	Bohumín os.n.	07.11.2019	08:47	08:48 +1 min

9906 [Link-Search](#) [Details](#)

From	Bjørnfjell	07.11.2019	07:38	07:38 +0 min
To	Narvik	07.11.2019	08:26	08:24 -1 min

1 2 3 4 5 ... 605

Where is my TRAIN?

Map showing train locations across Europe, including cities like Amsterdam, Hamburg, and Prague. The map is overlaid with numerous train icons and numbers, indicating the current location and status of various trains. A red box highlights the text 'Where is my TRAIN?'.

TIS-2020 – Manual Linking of Trains

[Trains](#) | [Diagrams](#) | [Configuration](#) | [Incident Management](#) | admin

Train Search

[Passenger](#)
[Freight](#)
[Others](#)
[National](#)
[International](#)
[only running](#)

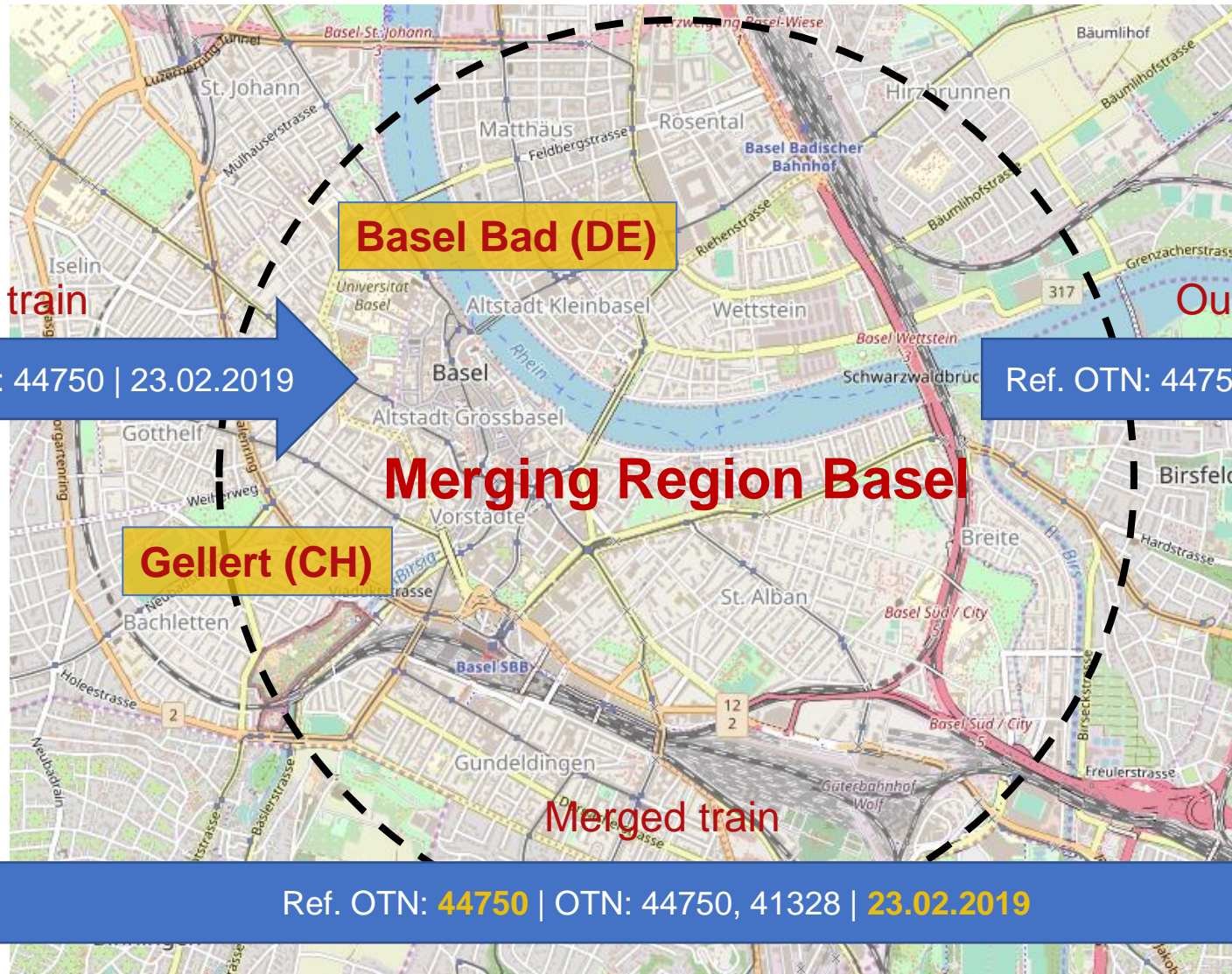
Search Train Number 4232 Results

Train Number	Linking time from	Linking time to	Linking Region (1)	
<input type="text"/>	<input type="text" value="06.11.2019 23:15"/>	<input type="text" value="07.11.2019 08:15"/>	<input type="text" value="Wernstein - Passau"/>	<input type="button" value="Search"/>

Gap	Train	
1:47:18	From Ebenfurth (in Ef) 07.11.2019 00:40 To Wernstein 07.11.2019 05:03	<input type="button" value="Apply Linking"/>
2:07:48	From Terminal Wien Freu... 07.11.2019 01:00 To Wernstein 07.11.2019 05:23	<input type="button" value="Apply Linking"/>
5:21:48	From Nickelsdorf 07.11.2019 04:07 To Wernstein 07.11.2019 08:37	<input type="button" value="Apply Linking"/>

47128	<input type="button" value="Link-Search"/>	<input type="button" value="Details"/>
From Passau Hbf Voglau	07.11.2019 03:15	04:16 +61 min
To Ingolstadt Nord	07.11.2019 08:10	09:43 +93 min
To Ingolstadt Nord	07.11.2019 08:10	09:43 +93 min
19903	<input type="button" value="Details"/>	
From Lille-Flandres - Bât ...	07.11.2019 07:02	07:03 +1 min
To Baisieux - Frontière ...	07.11.2019 07:23	07:24 +1 min
54006	<input type="button" value="Details"/>	
From München Süd	07.11.2019 04:34	06:42 +129 min
To München-Pasing Bbf	07.11.2019 05:18	
19720	<input type="button" value="Details"/>	
From Singen (Hohentwiel)	07.11.2019 10:36	10:36 +0 min
To Schaffhausen PB	07.11.2019 10:54	10:54 +0 min
96103	<input type="button" value="Link-Search"/>	<input type="button" value="Details"/>
From Basel Grenze (FR)	07.11.2019	06:15 +2 min
To Basel SBB	07.11.2019	06:21 +2 min
105	<input type="button" value="Details"/>	
From Basel Bad Bf	07.11.2019	14:41
To Basel Grenze		
53800	<input type="button" value="Details"/>	
From Braunschweig Rbf	07.11.2019 06:05	05:57 -7 min
To Fallersleben	07.11.2019 06:38	06:37 -1 min

TIS-2020 Merging Region - Example 1



Incoming train

Ref. OTN: 44750 | OTN: 44750 | 23.02.2019

Outgoing train

Ref. OTN: 44750 | OTN: 41328 | 23.02.2019

Merging Region Basel

Merged train

Ref. OTN: **44750** | OTN: 44750, 41328 | **23.02.2019**

Trainnumber Mapping Table

Locations	Trainnumber(s)
Gellert, Basel Bad, Basel Grenze	47315, 42557, 47111, 45789

TIS-2020 – Linking of Trains advanced Features

TrainCompositionMessage (TCM)

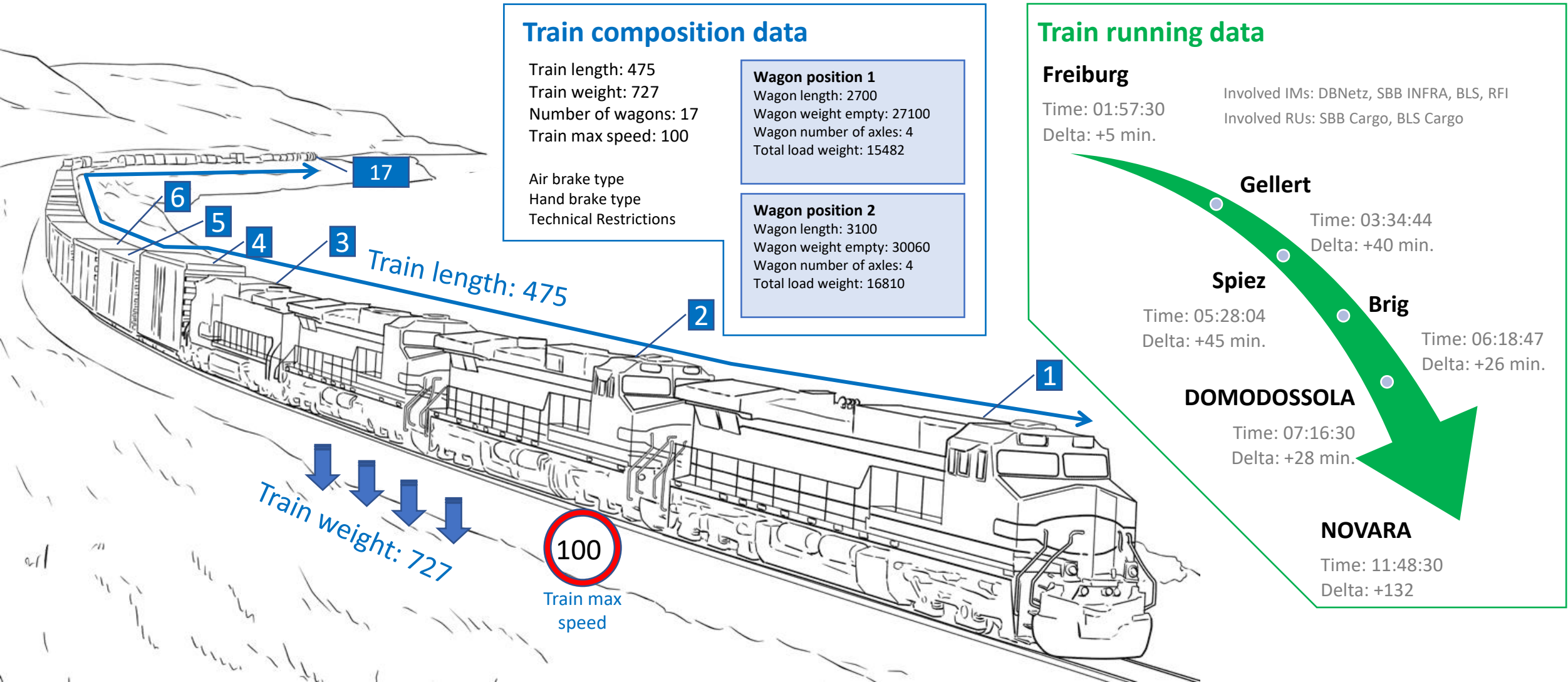
- Using of optional information to find out if key information like count of wagons, wagon numbers are identical for two consecutive IMs
- Train driver can provide information about previous or next Reference or Operational Trainnumber if TIS Map will be developed

Linking of trains via User interface

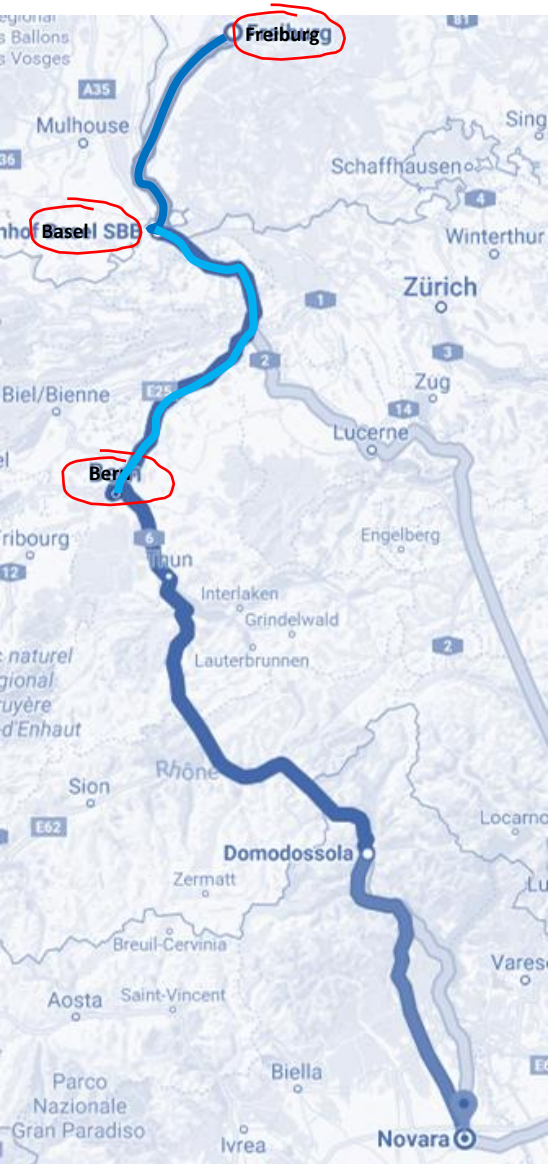
- Linking via user interface will be simplified and link will performed directly in the database no resending of messages will be required anymore

All above mentioned features will be obsolete as soon as the the trainid is available

Concept - Train Composition & Train Run Data



Train composition and mileage data combined



Freiburg -> Basel segment

Segment length: 65 km
Number of wagons: 17

Wagon position 1

Wagon length: 2700
Wagon weight empty: 27100
Wagon number of axles: 4
Total load weight: 15482
Wagon mileage: 65 km

Running data:

Scheduled: 02:35:30
Running: 02:41:30
Delta: +6

Wagon position 2

Wagon length: 3100
Wagon weight empty: 30060
Wagon number of axles: 4
Total load weight: 16810
Wagon mileage: 65 km

Running data:

Scheduled: 02:35:30
Running: 02:41:30
Delta: +6

Wagon position 3

Wagon length: 4200
Wagon weight empty: 45020
Wagon number of axles: 4
Total load weight: 18710
Wagon mileage: 65 km

Running data:

Scheduled: 02:35:30
Running: 02:41:30
Delta: +6

Basel -> Bern segment

Segment length: 96 km
Number of wagons: 16

Wagon position 1

Wagon length: 2700
Wagon weight empty: 27100
Wagon number of axles: 4
Total load weight: 15482
Wagon mileage: 96 km

Wagon at position 1 parked
at station Basel

Running data:

Scheduled: 02:35:30
Running: 02:41:30
Delta: +6

Wagon position 2

Wagon length: 3100
Wagon weight empty: 30060
Wagon number of axles: 4
Total load weight: 16810
Wagon mileage: 96 km

Running data:

Scheduled: 03:55:25
Running: 03:54:30
Delta: -1

Wagon position 3

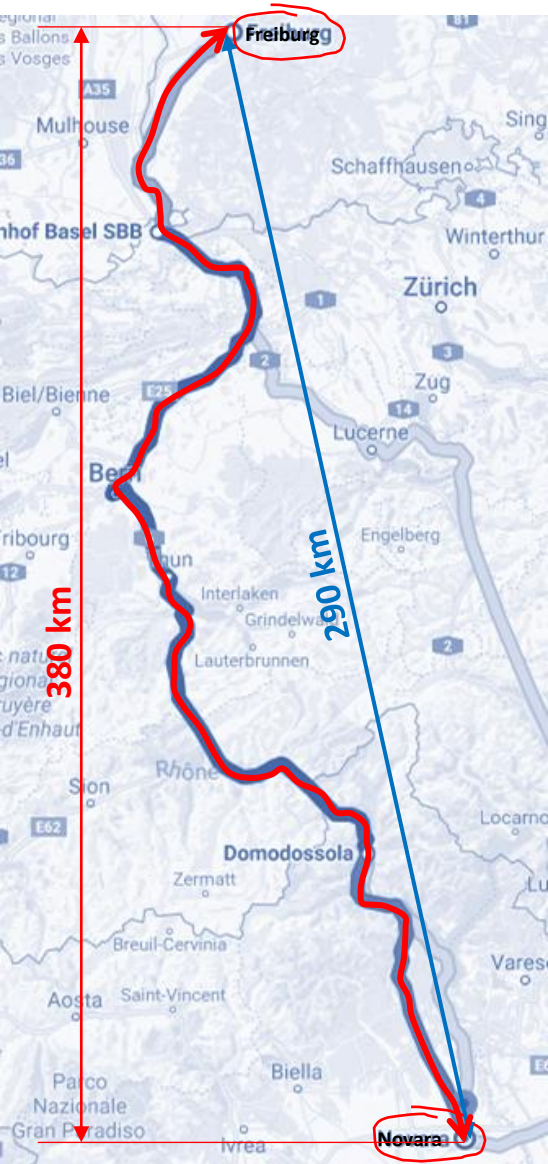
Wagon length: 4200
Wagon weight empty: 45020
Wagon number of axles: 4
Total load weight: 18710
Wagon mileage: 96 km

Running data:

Scheduled: 03:55:25
Running: 03:54:30
Delta: -1

It would be able to present information of running mileage for each train wagon together with it's technical details (length, weight, brakes...), time timetabling and running information.

Including Mileage data as a next step



Circle distance: 290 km
(shortest distance between two points across the Earth's surface)

Ground distance: 380 km
(actual mileage based on actual running path)

How does it work?

