Goal of this Case Study:

The required outcome of the following exercise is to convert CELL from a Trial Account/POC- Proof of Concept to a Paid account. You may want to consider the following Business

consideration when preparing the slide deck:

0) Defining 3 key metrics to determine success of the trial

1) Showcasing existing visibility supply chain performance of the customer

2) Performance improvement from using Portcast predictions

3) Improvement plan for the anomalies, including

● [Internal]: communicated internally within Portcast to deliver better service levels to CELL and other customers ● [External] communicated externally with CELL

1. container travelling behaviours
2. port of departure and related factors
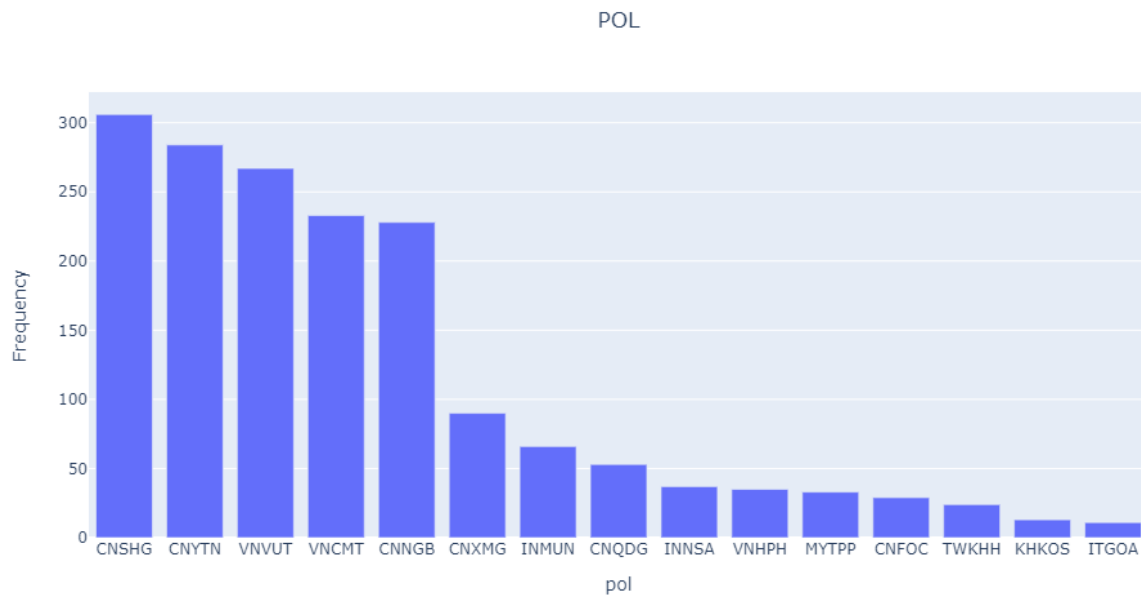3. inbound ship delays

Carrrier_no Wise visit

Average number of visits per day Here it can be seen that there are a handful of carrier that receive very large volumes of visits per day. The large number of daily visits to both
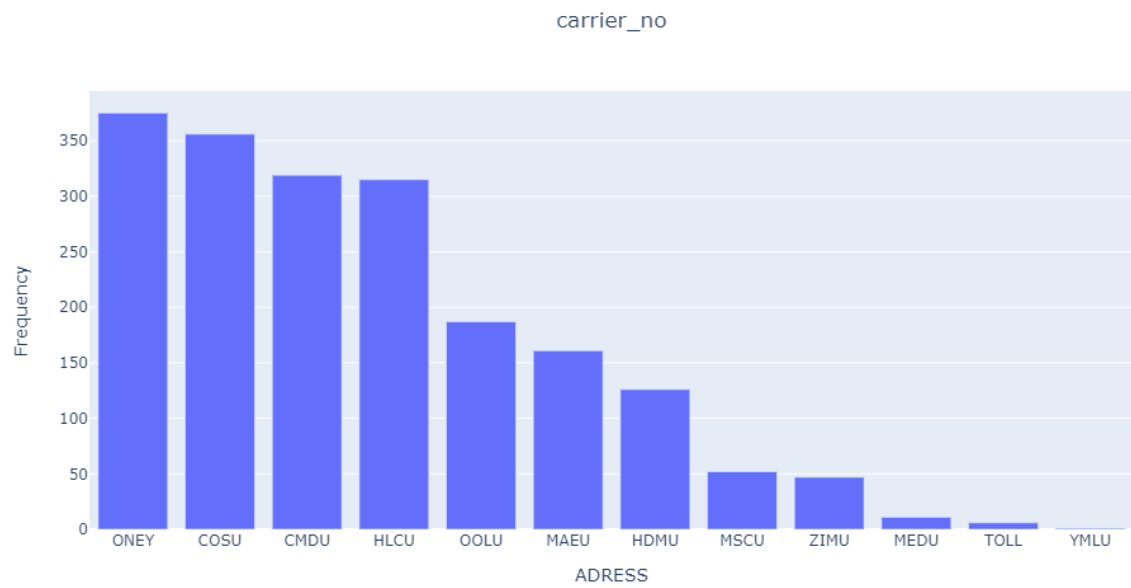
carrier_no

- As we can see Oney has the highest number container that has reached to the port
- YMLU carrier has lowest container delivery

Port of loading

POL

- As we an see CNSHG has more than 300 container reached to the port of loading
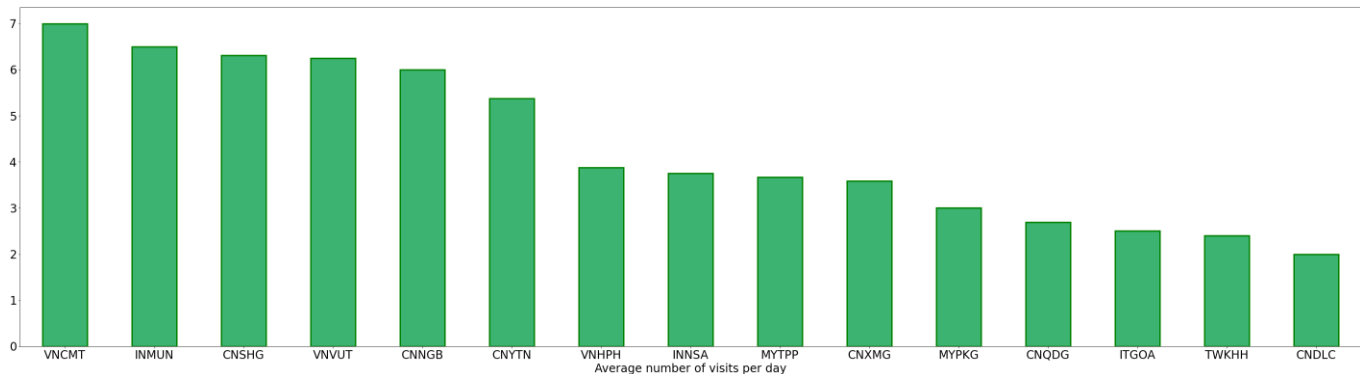- (KHKOS, ITGOA) port of loading lowest container reached.

Average number of carrier scheduled_port of Estimated Time of Departure (ETD)¶

Here it can be seen that there are a handful of ports that receive very large volumes of visits per day. The large number of daily visits to both Actual Time of Departure (ATD)
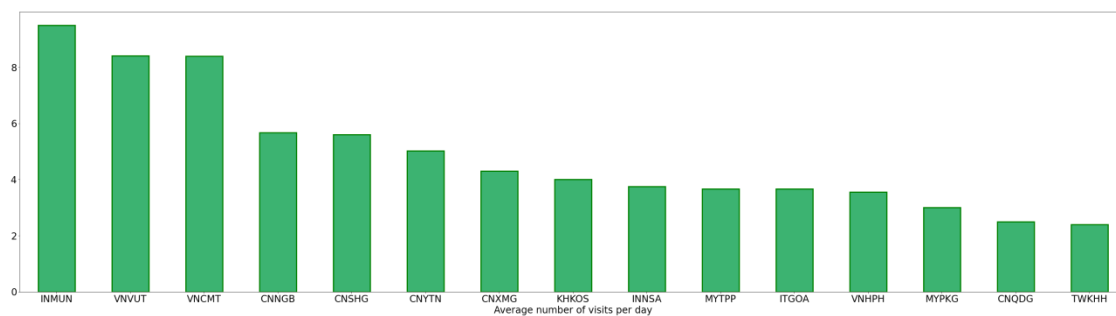
Average number port of loading_ Actual Time of Departure (ATD) of visits per day

Here it can be seen that there are a handful of ports that receive very large volumes of visits per day. The large number of daily visits to both
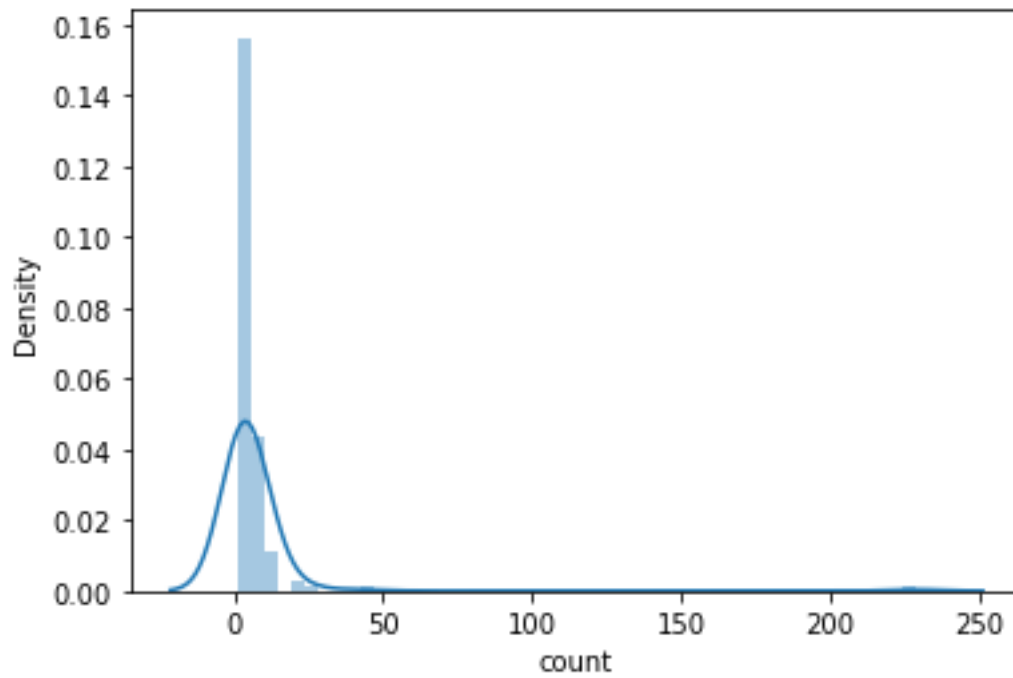

difference between scheduled_pol_etd and pol_atd by days¶

Actual Time of Departure (ATD) & Estimated Time of Departure (ATD)

```
Scheduled container_loading :  1160
actual_loading :  868
cancel_loading :  292
```

```
Ratio operated vessels over scheduled loading : 74.82758620689656
Ratio of cancelled vessels : 25.172413793103445
```
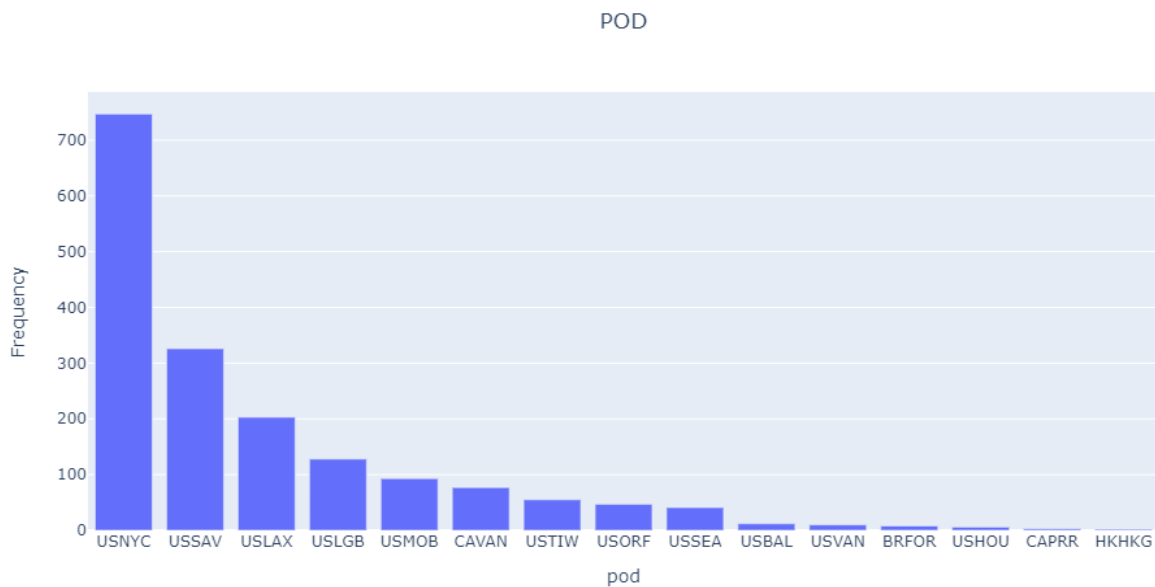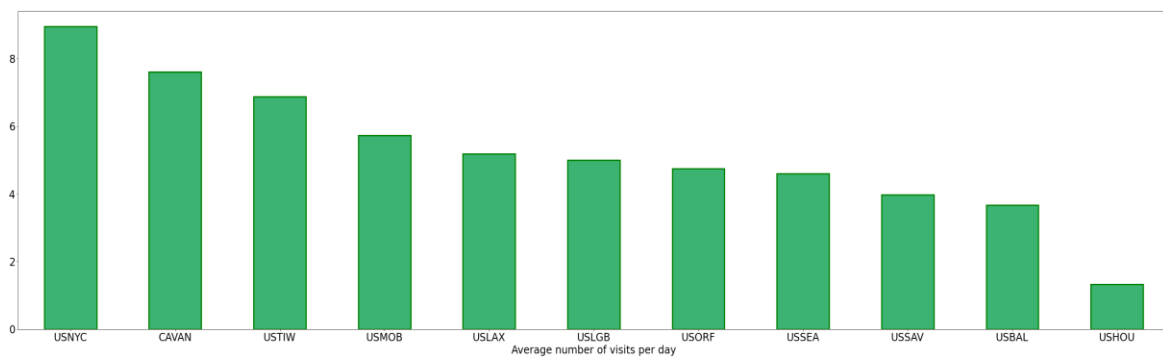
#skewness and kurtosis
Skewness: 10.508397
Kurtosis: 117.197090

Port of Delivery

POD

Average number of carriers in scheduled_port of Estimated Time of Departure (ETD)

Here it can be seen that there are a handful of ports that receive very large volumes of visits per day. The large number of daily visits to both Actual Time of Departure (ATD)

Average number port of loading_ Actual Time of Departure (ATD) of visits per day¶

Here it can be seen that there are a handful of ports that receive very large volumes of visits per day. The large number of daily visits to both

Average number of visits per day
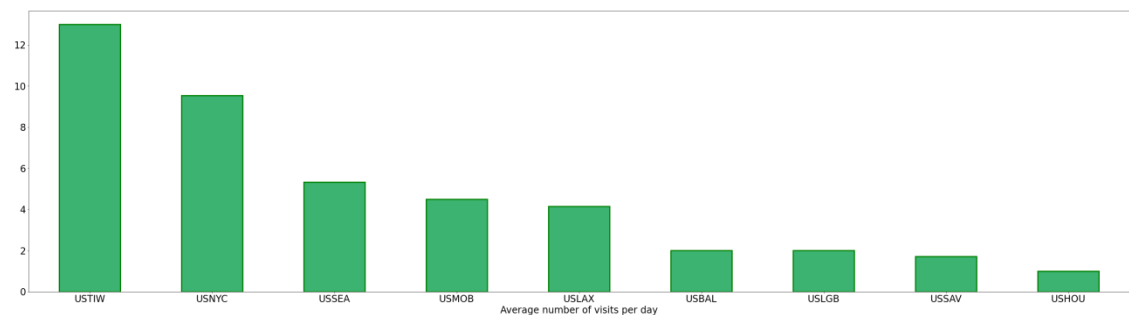
difference between scheduled_pod_eta and pod_ata by days

Actual Time of Departure (ATD) & Estimated Time of Departure (ATD)
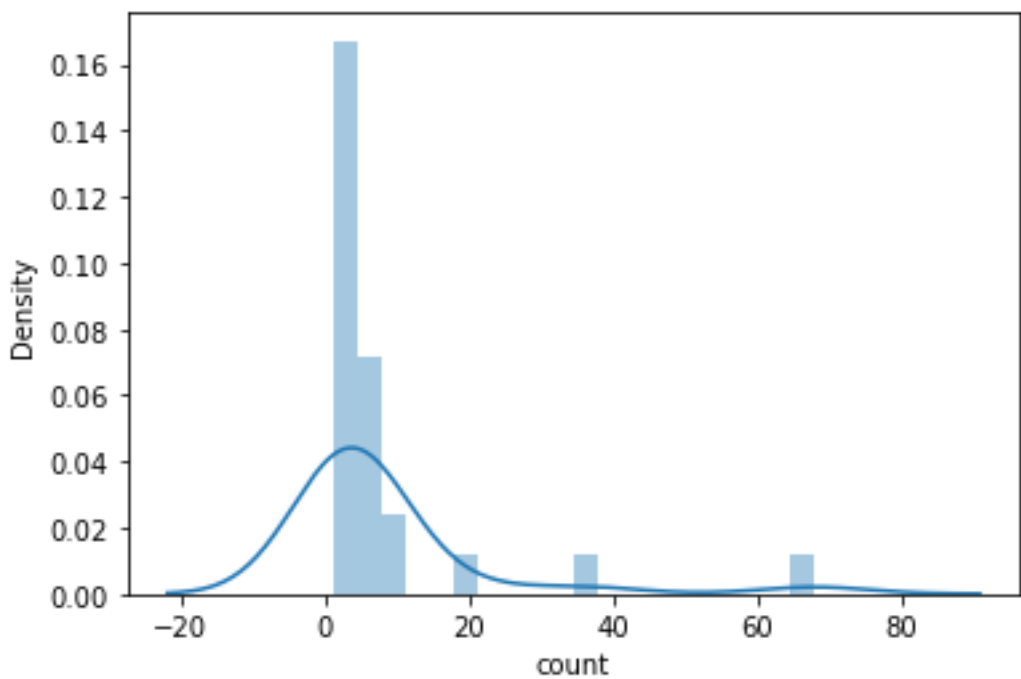
```
scheduled_departure:  1063
actual_departure:  204
cancel_departure:  859

Ratio operated container over scheduled vessels: 19.19096895578551
Ratio of cancelled vessels: 80.80903104421449
```
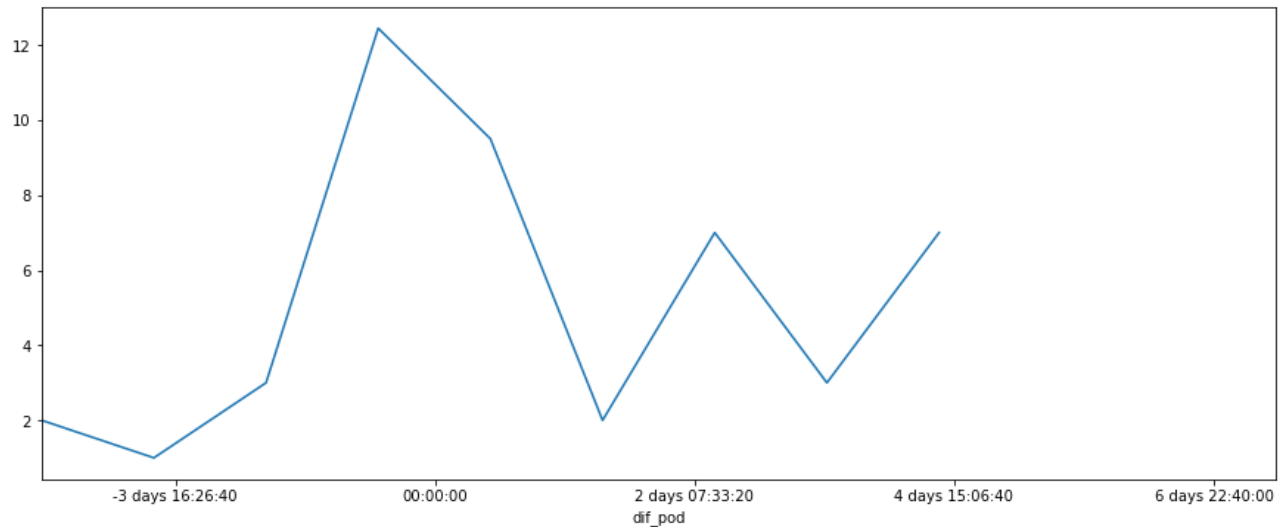
Port of departure delays etd vs actual time of arrival in days

#skewness and kurtosis
Skewness: 3.456480
Kurtosis: 12.764507

Performance improvement from using Portcast predictions

`mean_forecast_error : 0.6568627450980392`

Box plot for pod_ata vs portast predicited delays :

- As we can see interquartile range there are some outliers that container has arrived delays or took to many days.

dif_pod