## Business Scenario:

Comcast is an American global telecommunication company. The firm has been providing terrible customer service. They continue to fall short despite repeated promises to improve. Only last month (October 2016) the authority fined them a $2.3 million, after receiving over 1000 consumer complaints.

The existing database will serve as a repository of public customer complaints filed against Comcast.  
It will help to pin down what is wrong with Comcast's customer service.

**Data Dictionary**

* Ticket #: Ticket number assigned to each complaint
* Customer Complaint : Description of complaint
* Date : Date of complaint
* Time : Time of complaint
* Received Via: Mode of communication of the complaint
* City : Customer city
* State : Customer state
* Zipcode : Customer zip
* Status : Status of complaint
* Filing on behalf of someone

# Analysis Task

* Import data into R environment.
* Provide the trend chart for the number of complaints at monthly and daily granularity levels.
* Provide a table with the frequency of complaint types.
* Which complaint types are maximum i.e., around internet, network issues, or across any other domains?
* Create a new categorical variable with value as Open and Closed. Open & Pending is to be categorized as Open and Closed & Solved is to be categorized as Closed.  
  - Provide state wise status of complaints in a stacked bar chart. Use the categorized variable from Q3.
* Provide insights on :
  + Which state has the maximum complaints
  + Which state has the highest percentage of unresolved complaints

- Provide the percentage of complaints resolved till date, which were received through the Internet and customer care calls.

Analysis

Data was loaded into the python environment and no missing data was identified in the data.

As we can interpret in the first graph below, the number of tickets starts to increase in April and May. However, what we can further see is that the number of tickets has raised drastically in the month of June. We can as such assume is that there a significant reason behind such turning-point.

we can interpret is that the number of tickets starts to drastically increase during the second half of the month of June.

Let us dive into more details to check what is the most category of complaints that the company is receiving.

most of the complaints are related to Internet issues. A lot of other categories of complaints were grouped under the “Others” category

As we can see in the states where the number of tickets is the highest are in Georgia and Florida.

As depicted in the pie charts below, we can conclude that the resolved complaints are 77% in which 38% are received from the Internet and 39% from the customer care calls. Also, we can notice that there is 23% of complaints that are still unresolved and in which 12% are received from the Internet and 11% from the customer care calls.

## Conclusion:

As per the analysis we observe that in the 2nd half of the June month Comcast received high amount of complaints in which most of the complaints are related to internet service issue and the highest amount of complaints are received from the state Georgia. The highest unresolved complaints are related from the state Georgia and the total amount of resolved complaints are 77% in which 38% are received the internet and 39% are from the customer care calls.