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BEST NETWORK PROVIDER IN DEC 2021

DATA ANALYSIS REPORT



Best Network Provider in Dec 2021, India

DATA ANALYSIS REPORT

PARAMETERS FOR BEST NETWORK PROVIDER

1. Networks with speed more than average.
2. Strong signal strength
3. More use of 4G technology

DATA GATHER

Dataset which I used is from <https://indiaai.gov.in/> , **All India Crowdsourced Mobile Data Speed Measurement for December 2021.**

Initially Dataset was in csv format.

SOFTWARE USED

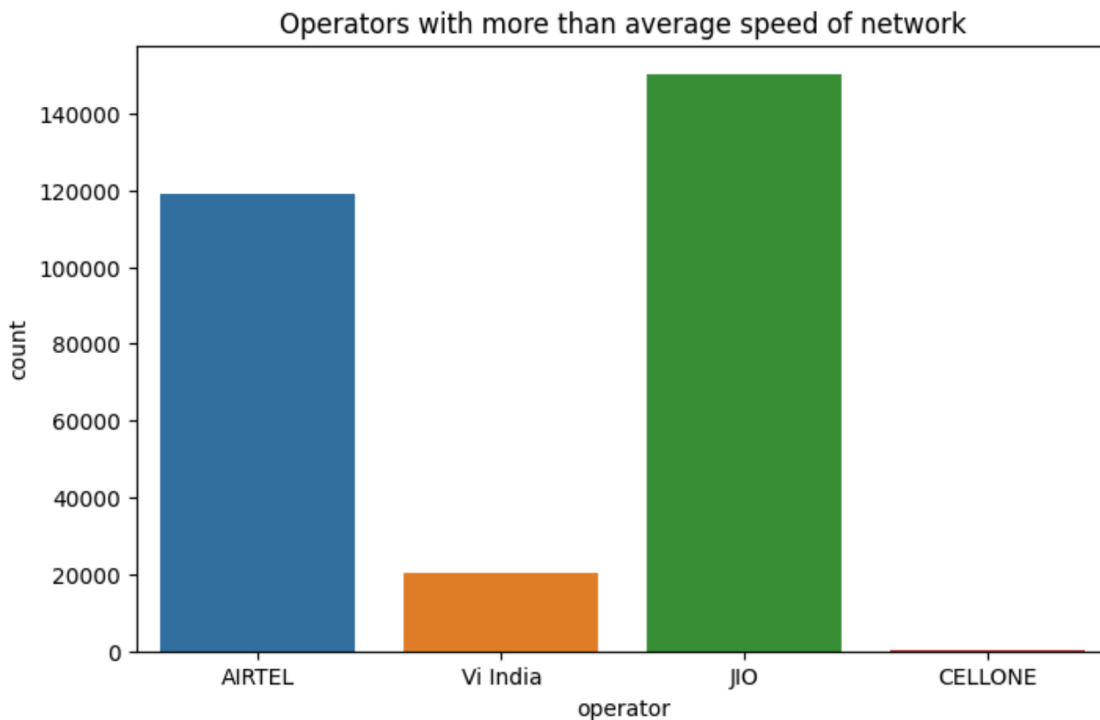
Language :- Python

Software :- Jupyter notebook

DATA ANALYSIS AND FINDINGS

1) Operator networks with speed more than average.

Average network speed :- **11900.89 kbps**



This graph shows that, **JIO have Comparatively highest networks with speed more than average** followed by Airtel.

2) Operator with strongest signal strength.

RSSI- Received Signal Strength Indicator. **RSSI is a negative value, and the closer to 0, the stronger the signal**

RSSI

RSSI	Signal strength	Description
> -65 dBm	Excellent	Strong signal with maximum data speeds
-65 dBm to -75 dBm	Good	Strong signal with good data speeds
-75 dBm to -85 dBm	Fair	Fair but useful, fast and reliable data speeds may be attained, but marginal data with drop-outs is possible
-85 dBm to -95 dBm	Poor	Performance will drop drastically
<= -95 dBm	No signal	Disconnection

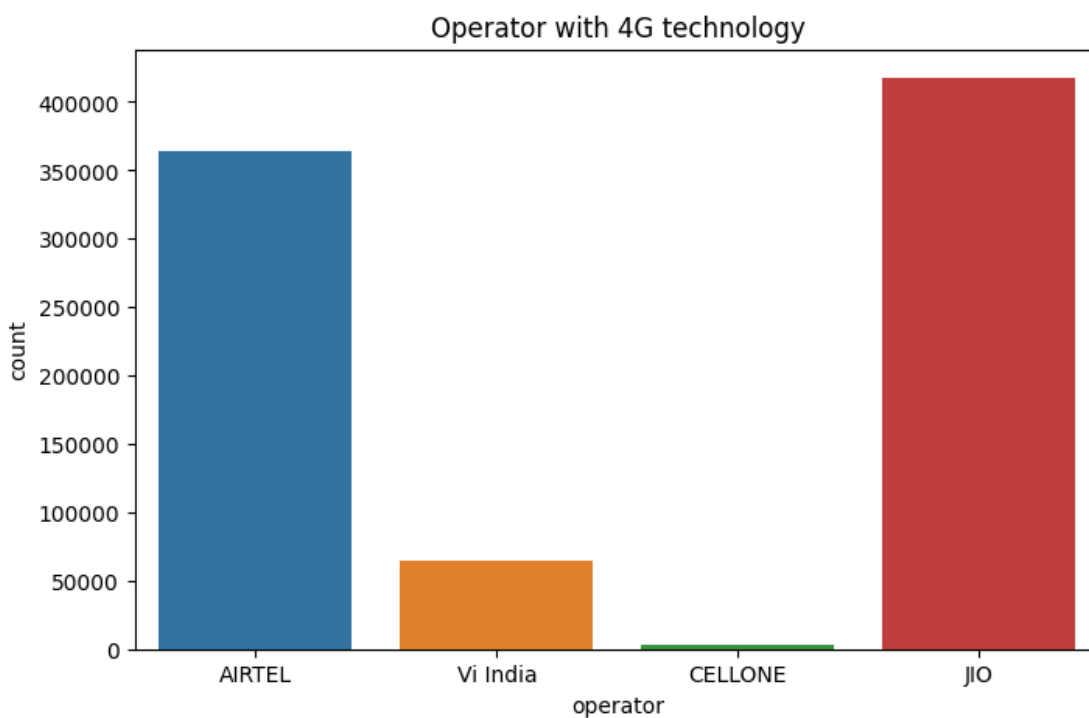
Average signal strength according to operators.

signal_strength	
operator	
AIRTEL	-94.80
CELLONE	-81.05
JIO	-92.71
Vi India	-96.07

Here, **CELLONE** have strongest signal strength among all the operators followed by JIO.

3) Operator networks with 4G Technology

Operator	Networks of 4G tech.
JIO	0.49 or 49%
AIRTEL	0.43 or 43%
Vi India	0.08 or 8%
CELLONE	0.00 or 0%



According to this analysis and visual, **JIO have highest networks with 4G technology** followed by Airtel.

CONCLUSION

Note: Initially dataset was around 9.5 lakh record, but after data cleaning and removing outliers, dataset left with around 8.6 lakh records, and data analysis performed on that 8.6 lakh records.

This analysis give the clear understanding of that JIO is the best network provider among them all. With respect to the parameters, JIO have more networks with speed more than average compare to all other network providers with good signal strength of -92.71 dBm and 49% use of 4G technology among others which is highest.

Hence, JIO is the best network provider in Dec 2021, India.