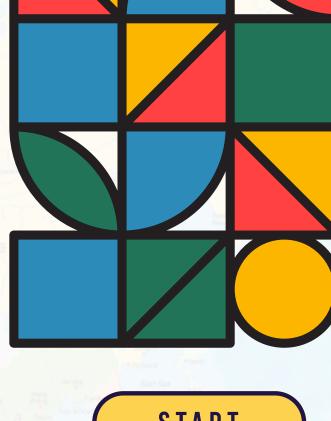


## Finance Financ

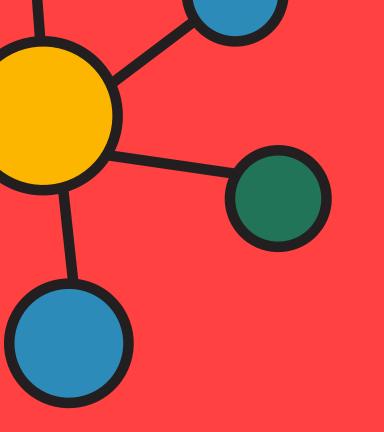


START

# Traffic Congestion Monitoring System









Every day, over 1 billion kilometers are driven with Google Maps around the world.

Ever wondered how google maps can show such accurate traffic conditions of any location??



When Google Map Said you would Reach there in 17 Min and you reached in 16 mins.

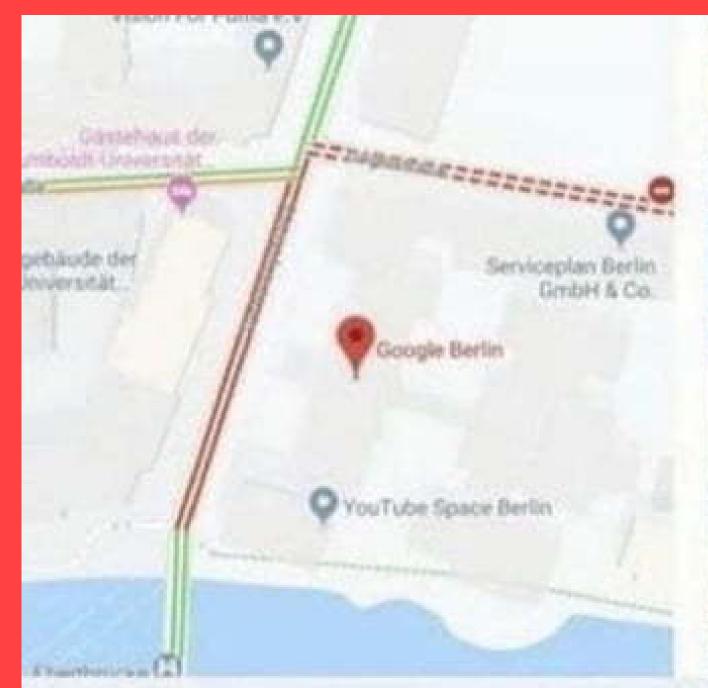




It started out using historical traffic data from various agencies, based on past trends like day of the week, time of day, month etc. But it wasn't real-time....people can't know about their present traffic situations caused by accidents, road constructions, etc.

Today, Google uses 2 main methods to monitor traffic.

GPS Tracking is the first one. Using GPS (a.k.a. the location services), google detects the number of devices on a particular area and their speed to find their relative congestion. If a phone sends GPS signals slower than usual, implies its in traffic.





ANDROIDAUTHORITY.COM

A guy wheeled around 99 phones in a cart to create traffic jams on Google Maps



Using Data is obviously the 2nd method used by Google. In 2009, Google turned to crowdsourcing to improve the accuracy of its traffic predictions.





Google Maps continuously combines the data incoming from all the cars and sends it back by way of those colored lines on the traffic layers.

••••••

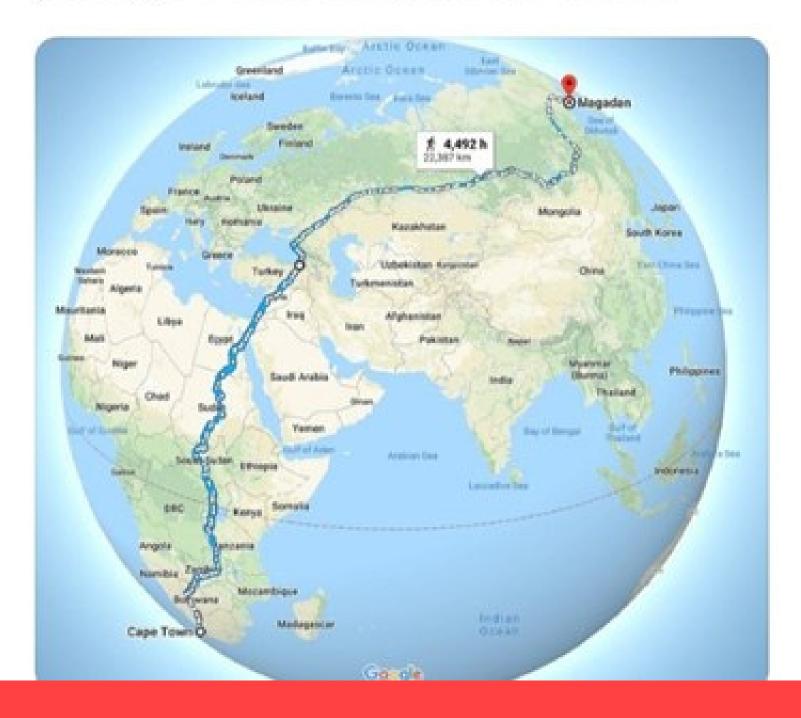
The biggest leap in real-time updates of traffic conditions came in with Google's acquisition of Waze in 2013. Drivers use the Waze app to report traffic incidents including accidents, disabled vehicles, slowdowns and even speed traps which appear as individual points on Google Maps, with small icons representing things like construction signs, crashed cars or speed cameras.



### Mark Tomasovic

@MarkTomasovic

## This is the longest continuous path you can walk in the world





## **Arvind Gopalan**

@arvind\_gopalan

Replying to @MarkTomasovic

My dad walked this everyday to get to his school. He also didn't have shoes.

Google uses its advanced Machine
Learning and Deep Learning to analyse
the flood of data and come up with
highly accurate results.



Google uses A\* search algorithm to find the route with shortest time. It is a searching algorithm that combines the cost (here, traffic) to reach an intermediate node with an estimate of the distance to the goal node to arrive at conclusions.

## WO VEH I YERKE

Best GPS Apps in order.

- 1. Google Maps
- 2. Waze
- 3. Find my iPhone
- 4. Compass 🛞
- 5. Letting the sun guide you.
- 6. Candle
- 7. Using the stars as guidance.
- 8. Apple Maps.

9:24 PM · Apr 26, 2021







Lora Roy I use Waze and always plant a cop near my house so people slow the f down in front of my house!

