**Problem diagnosis:**

At present, navigation software (Baidu navigation, Gaode map, etc.) in China is mostly based on real-time data analysis, such as video surveillance and real-time uploading of user data. This type of software can reflect real-time road conditions and congestion levels in real time. However, according to the survey, some users often check the departure route in advance hours or even days before the trip, and the road conditions may change during this period. For example, User A and the customer agreed to meet at 6 pm. In the morning, he asked for the current road condition to arrive in the morning for 2 hours. However, the road conditions caused by the rainy weather and the peak of work were not able to arrive on time and caused significant losses.

In the case of some travellers consciously planning travel ahead of time, the navigation software should be based on this to give smarter, more accurate time and route planning. This is of great significance to those who need to plan travel time, route and arrival time in advance.