ABSTRACT

The present invention discloses a traffic data stream aggregate query method and system, which belongs to the field of information technology processing. The method includes the steps of acquiring spatial-temporal information of a mobile object to generate a traffic data stream, dividing data space into cells, grouping adjacent cells with similar frequency into few buckets, calculating Kalman gains of the buckets based on frequencies of the buckets, and indexing the buckets using a binary partition tree to form a BPT index of the current timestamp, and serializing the BPT after the end of the current timestamp to form a historical index; and performing aggregate query, wherein an optimum estimation value of the bucket frequency is utilized to replace for calculating when the frequency of the bucket changes a lot. The system includes: an information collection module, an data processing module, an index processing module, an application service module and an index storage module. According to the present invention, the maximum relative error of abnormal points during traffic data stream query process can be effectively suppressed, so that the availability of the aggregate query method is ensured.

[Figure 2.]