

ABSTRACT

Increased competition in the telecommunications world encouraging policies to keep the existence of the company and customers. Policies issued in the field of Kancatel Sibolga fixed wire line services is to hold a Visitation for customers who have bad debt. Visitation is intended to keep customers as users of the existence of fixed wired services lined tbk PT Telkom, especially in Sibolga. Visitation is done by visiting the customer sites that have bad debt directly. Problems encountered in this process is the presence of the spread and location difficult to determine the implementation strategy be seen from the route to be taken, so that in the execution-Visitation Visitation walking occurs inefficient process characterized by the repetition of the route and location of previously visited. Therefore, the final task was carried out for application system design decision making process regarding planning Visitation views of the route will use the route determination application for bad debt collection visitation fix wired lined customers of Kancatel Sibolga.

Visitation routes that will be examined is the route that has the minimum distance from a series of locations to visit. Route to search is the route which has departure and arrival point is at the same point and also visit all the entry points. For that, use the method heuristic algorithm for traveling salesman problem (TSP) to produce the configuration of the entry point. The points have entered location coordinates which then form a distance with the points another location and then performed iterations to obtain the minimum distance in the form of circuitry that can be used as traffic routes. Having obtained the optimal route, routes conducted visualization process using Borland Delphi 7.0 making it easier for the user in seeing the outcome of this process.

Keywords: Route Determination Applications, Heuristic algorithm, Treveling Salesman Problem (TSP)