We first construct a corresponding flow network with the computers as vertices and with computer 1 as the source and computer N as the sink. If there is a link between two computers i and j, we connect i and j with a directed edge in same directions as the link and of weight each equal to the cost. We now run the Edmons-Karp algorithm to find the maximal flow through such a network $O(|N||M|^2)$. Since the max flow of a network is the minimum capacity to partition the network, which is the minimum cost to disjoint two segments, edges included in the max flow solution is the link to be removed. The sum of cost of those edges is the minimum cost.

Time complexity: Constructing a network and running the Edmons-Karp algorithm = $O(|N||M|^2)$