A disconnect occurs between theories proposed by mathematicians in terms of how a network could be optimised, compared to what a Practitioner can implement in practice. The purpose of this article investigates what theory’s function to optimise a network, whether newly formed, or already placed. Here, analysing two independent approaches, we investigated which method can optimise a communication network: Minimal Spanning Tree Solution (MST), and Dijkstra's Shortest path algorithm (DSPA); Finally, Ant Colony Optimisation (ACO) is introduced to suggest a coherent routing strategy but has not been implemented for assessment. This study implied that MST is suggested as not a practical solution for optimisation, in terms of reducing cost between nodes and links which carry traffic. In contrast, DSPA is suggested as more optimal and efficient. However, where DSPA in theory executes between one link and two nodes well, it may not consider the competition in terms of other links. Our findings indicate there may not be ideal solutions to match proposed problems that have been raised. Therefore, we suggest an opportunity lies for further discussion within a conference, such as the use of ACO to be implemented, to discover what solutions to utilise to tackle the proposed networks problems.