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QoS-aware Big service composition using MapReduce based evolutionary algorithm with guided mutation

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***Highlights (for review)**

Highlights:

- The problem of producing service composition with an optimal QoS attribute that satisfies the customer requirements is a complex and challenging issue, especially in a Big service environment.

- We propose a novel MapReduce-based Evolutionary Algorithm with Guided Mutation that leads to efficient composition of Big services with better performance and execution time.

- The empirical analysis of our proposed method shows the best performance concerning feasibility, scalability, and optimality with optimal QoS values for Big service composition.

- By performing T-test and Wilcoxon signed rank test at 1% level of significance, we observed that our proposed method outperforms other methods.