

## Cover Letter

April 26, 2020

Dear Editor,

I am submitting a manuscript for consideration of publication in the Journal of Network and Computer Applications. The title of the manuscript is '**Static and Dynamic Controller Assignment Algorithms for Software-Defined Networks**'. The paper is not published anywhere else or is not under review at this moment.

The Controller Placement Problem (CPP) in Software Defined Networks (SDN) is an interesting field of research. Currently researchers are working on clustering the SDN network to place multiple controllers instead of one. This is NP-Hard as there are more than one parameters that need to be optimized like network scalability, reliability, security, cost and energy consumption, network traffic etc. With a target to handle so many parameters, this paper uses an optimization algorithm that is based on a variable which can be set to any of the parameters.

The major contributions of the paper are:

1. We give several algorithms which work with weighted links between switches, thus allowing us to create clusters based on network traffic, bandwidth, transmission rate, etc., which are essential in determining the condition of a network.
2. Our proposed algorithms cluster SDN networks in polynomial time complexity.
3. Our algorithms are both static and dynamic traffic-aware. They consider traffic while clustering before placing controllers (Static) and can also re-cluster the switches based on existing traffic after placing the controllers (Dynamic).

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Thank you very much for your consideration.

Yours Sincerely,

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