

A survey of resource allocation and controller placement problem in SDN-SDWSN

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**Abstract:**

In large-scale software-defined wireless sensor networks (SDWSN), optimum controller placement and resource scheduling are critical to achieving network performance, quality of service and experience. Several approaches have been implemented in each aspect especially in the software-defined networking perspective and the SDWSN has not been widely explored in terms of controller placement. Moreover, studies have suggested that a practical controller placement problem (CPP) solution can be effective when other related problems are considered together. Therefore, this paper carried out an indepth review of the current resource allocation schemes and CPP strategies in the SDN. The objective was to identify the solutions offered, research challenges and determine whether related problems are considered together. The analysis shows that several approaches exist and problems such as CPP, resource allocation, security are disjointedly addressed in the network, indicating the optimum solution is yet to be achieved. We then recommend that any practical solution to CPP should not be addressed in isolation but to incorporate other related problems.