A Flow Entry Management Scheme for Reducing Controller Overhead

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Abstract— In this paper, we advocate addressing the communication overhead problem between OpenFlow controllers and OpenFlow switches due to *table-miss* in a flow table. It may cause the communication overhead between controllers and switches because a switch has to send *packet-in* message to a controller for processing table-missed flows. We propose a simple flow entry management scheme for reducing the controller overhead by increasing the flow entry matching ratio. By using an LRU caching algorithm, a switch can keep the flow entries in a flow table as many as possible, and then the flow entry matching ratio can be increased.

Keyword—Computer networks, Communication networks, Data communication, Packet switching

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