

A New Method to Reduce 5G Application Layer Payload Size

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Abstract : Nowadays, 5G service-based interface architecture uses text-based payload like JSON to transfer business data between network functions, which has obvious advantages as internet services but causes unnecessarily larger traffic. In this paper, a new 5G application payload size reduction method is presented to provides the mechanism to negotiate about new capability between network functions when network communication starts up and how 5G application data are reduced according to negotiated information with peer network function. Without losing the advantages of 5G text-based payload, this method demonstrates an excellent result on application payload size reduction and does not increase the usage quota of computing resource. Implementation of this method does not impact any standards or specifications and not change any encoding or decoding functionality too. In a real 5G network, this method will contribute to network efficiency and eventually save considerable computing resources.

Keywords : 5G, JSON, payload size, service-based interface

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