Abstract - The performance improvement of Full-layered Softswitch network architecture is presented in this by adding Routing Server (RS), as a signaling server for searching the routes and the information for the subscribers among the Softswitchs. That can reduce the works of Softswitchs and can decrease the average of the call set up delay. Moreover, we present the analyzing model of Softswitch network by applying the Jackson’s theory, and then we study by comparing the capacity of the proposed Softswitch network architecture and of Full-layered architecture of the Xu peng and others. The result is that the proposed network has a better result than Full-layered architecture of Xu peng, both analytical and numerical result.

Keywords - Softswitch, jackson network, full layer Architecture, Queueing Theory, Routing Server

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