

Abstract

IMS is a technology that appears to complement the technology-based NGN softswitch technology. IMS able to integrate the various services and networks. IMS capable of delivering more standardized services, and structured, which is characteristic of most layered architecture. At the same time, IMS provides architecture capable of simplifying and accelerating service creation and activation process and administrative services (provisioning), while still supporting the existing services from the network.

Currently realized in the form of servers that are the product of a vendor that there are still many of his proprietary content. This will complicate the development of freedom of development of technology is dependent.

Open IMS is software made by FOKUS (an institute in Germany) in December 2006. FOKUS implements IMS components such as CSCFs, HSS, Application Servers and other integrated in a single system. In implementation, realized IMS component is limited to a fixed network by using the 5 server, DNS server, HSS server, and CSCFs (*proxy, serving, interrogating*). At the end of this task focuses on the development of the IMS architecture by calculating the delay in the process of each server.

Delay obtained from the testing process in the server control is 0.15 milliseconds for the signal control. While the P-CSCF takes 0.967 milliseconds for the notify signal. On I-CSCF has the longest time of 0.75 milliseconds when processing received signals from the HSS. S-CSCF has the longest time of 1.533 milliseconds when accessing the HSS. As for HSS alone has the longest time when accessed by the S-CSCFs for 16.85 milliseconds.

Keywords: SIP, Open IMS, IMS, DIAMETER, HSS, CSCF