Implementasi DNS Dari Sudut Pandang Efek *Cache* dan *Resolver* Bersama Untuk Mengurangi Beban Pada Sistem

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Abstract
The complex way of working with a system that is difficult to manage and solve due to too many different components makes solving Shared Resolver a problem for the client. Several studies are looking for a solution by creating their own local server that can affect network performance and get answers to client requests from the query time obtained. In this study, a local server development will be carried out at a low cost for a single server size but can affect network performance using the Raspberry Pi Embedded System so that it can be a good offer for clients. The development of this server will be tested by using Shared Resolver and local full service Resolver as a local server on the Raspberry Pi to find out better results. The results show that making a local server on the Raspberry Pi as a Local Full Service Resolver is a good solution for the client by saving time on searching web servers in terms of network performance testing and being able to store it in the cache in order to simplify the system. And lastly, from the side of filtering testing on server creation on the Raspberry Pi as a full-service local resolver, it can block sites that are considered policy violations.

Keywords: *Shared Resolver, Resolver local full-service, Server Raspberry Pi*