DESIGN OF INTEGRATED HOSTING SYSTEM USING SET TOP BOX

Name : Deviana Fitri

Student Id Number : 6404211039

Supervisor : Rezki Kurniati, M.Kom

ABSTRACT

This research designs an integrated hosting system using the Set Top Box (STB) HG680-P as an economical, easy-to-manage, and physically visible alternative to conventional hosting services. The STB is converted into a server using Linux Armbian and CasaOS with Docker-based services, including PHP–Apache, MariaDB, and Adminer. Public access is implemented through Cloudflare Tunnel to compensate for the absence of a Public IP on residential networks. The evaluation includes hosting implementation, domain configuration using hostingstb.my.id, and performance testing with BlazeMeter. The results show that the STB can operate stably with up to 30 concurrent users, achieving an average response time of 474.14 ms. At 50 users, performance decreases but the website remains accessible. The system operates securely, with SSL Full (Strict) successfully applied. This research concludes that the STB can serve as a cost-effective and reliable standalone hosting server for small to medium-scale websites.

Keywords: Set Top Box, Hosting, Linux Armbian, CasaOS, Docker, Cloudflare Tunnel.