

## ABSTRAK

Penelitian ini membahas perancangan keamanan jaringan menggunakan teknologi firewall filtering content di Balai Kampung Rama Klandungan. Dengan internet 10 Mbps dan tanpa sistem keamanan, akses bebas ke media sosial dan game online dapat mengganggu produktivitas. Metode penelitian yang digunakan adalah *Network Development Life Cycle (NDLC)* yang meliputi analisis, desain, perancangan, penerapan, pemantauan, dan manajemen jaringan. Tujuan penelitian adalah merancang sistem firewall untuk membatasi akses ke situs negatif dan media sosial, sehingga meningkatkan keamanan jaringan dan produktivitas. Keamanan jaringan firewall digunakan untuk membatasi akses ke situs negatif seperti judi online, media sosial seperti Facebook, dan game online tertentu seperti Mobile Legend. Hasil pengujian blackbox testing menunjukkan bahwa firewall filtering content efektif dengan mikrotik dalam meningkatkan keamanan jaringan dan menjaga produktivitas.

**Kata kunci:** keamanan jaringan; firewall filtering; balai kampung; network development life cycle (ndlc); blackbox testing

## ABSTRACT

This research discusses the design of network security using content filtering firewall technology at Balai Kampung Rama Klandungan. With an internet speed of 10 Mbps and no security system in place, unrestricted access to social media and online games can disrupt productivity. The research method used is the Network Development Life Cycle (NDLC), which includes analysis, design, development, implementation, monitoring, and network management. The goal of the research is to design a firewall system to restrict access to negative sites and social media, thereby enhancing network security and productivity. The firewall network security is employed to limit access to negative sites such as online gambling, social media platforms like Facebook, and certain online games like Mobile Legends. Black box testing results show that content filtering firewall is effective with MikroTik in improving network security and maintaining productivity.

**Keywords:** network security; firewall filtering; balai kampung; network development life cycle (ndlc); blackbox testing