

ABSTRAK

Keamanan jaringan menjadi tantangan bagi PT Global Media Dev.Id yang menggunakan *Hybrid Cloud*. Risiko seperti *SQL Injection* dan koordinasi sistem yang buruk dapat mengancam keamanan. Penelitian ini menganalisis peran *Virtual Private Cloud* (VPC) menggunakan pendekatan *CIA Triangle* (*Confidentiality, Integrity, Availability*) untuk meningkatkan keamanan jaringan. Metode yang digunakan mencakup studi literatur, analisis arsitektur jaringan, implementasi, dan pengujian VPC. Hasil menunjukkan bahwa VPC meningkatkan keamanan melalui isolasi jaringan dan manajemen akses yang ketat. *AWS Security Groups* juga mencegah serangan siber. Implementasi VPC terbukti efektif dalam melindungi dan mendukung operasional perusahaan.

Kata kunci : *Virtual Private Cloud, Hybrid Cloud, Keamanan Jaringan, Cloud Computing, AWS, CIA Triangle.*

ABSTRACT

Network security is a challenge for PT Global Media Dev.Id, which utilizes Hybrid Cloud. Risks such as SQL Injection and poor system coordination can threaten security. This study analyzes the role of Virtual Private Cloud (VPC) using the CIA Triangle approach (Confidentiality, Integrity, Availability) to enhance network security. The methods include literature review, network architecture analysis, VPC implementation, and system testing. Results show that VPC improves security through network isolation and strict access management. AWS Security Groups also prevent cyberattacks. The implementation of VPC proves effective in securing the network and supporting the company's operations.

Keywords : *Virtual Private Cloud, Hybrid Cloud, Network Security, Cloud Computing, AWS, CIA Triangle.*