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Research Article



Aero Secure: Cloud Firewall

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ABSTRACT

AREOSECURE is a specialized firewall solution designed to secure cloud storage environments by providing a multi-layered

defense system. It offers real-time monitoring of network traffic and data flows, utilizing advanced algorithms and threat intelligence to detect and neutralize potential threats before they compromise the system. With granular access controls, administrators can define precise permissions based on user roles and data sensitivity, ensuring enhanced security and regulatory compliance. Aero Secure enforces encryption for data both at rest and in transit, safeguarding sensitive information according to industry standards. In addition to the set features, Aero Secure conducts regular vulnerability assessments, identifying system weaknesses and offering actionable insights for remediation. Its machine learning-powered anomaly detection system flags unusual patterns in data access and usage, enabling proactive responses to emerging threats. By integrating these technologies, Aero Secure provides a robust and adaptive security framework that enhances the resilience of cloud storage environments, ensuring the confidentiality, integrity, and availability of data against evolving cyber threats.

Keywords: Cloud security, firewall, encryption, real-time monitoring, threat detection, anomaly detection, access control, vulnerability assessment, compliance.

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