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(57) Abstract :

The present invention provides a system and method for enhanced security enforcement in service provider networks using dynamic equipment and application identity authentication. The system comprises an authentication server (10), a network element (20), and a database (30). The authentication server (10) uses a public key infrastructure (PKI) to authenticate the identity and access rights of equipment and applications. The network element (20), which can be a firewall or an intrusion detection system, enforces security policies based on the authentication result. The database (30), implemented using a distributed ledger, stores equipment and application identity information and access rights. This approach ensures that only authorized entities are allowed access to the network, thus enhancing security enforcement in service provider networks.

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