

Comprehensive Security for Permissioned Blockchains



BlockchainDefender™

BlockSafe
TECHNOLOGIES™

Permissioned based blockchains offer powerful, scalable solutions to a host of business problems, from financial and regulatory challenges to operational inefficiencies. But blockchain transactions can be easily compromised.

The more private the blockchain, the simpler it is to hack.

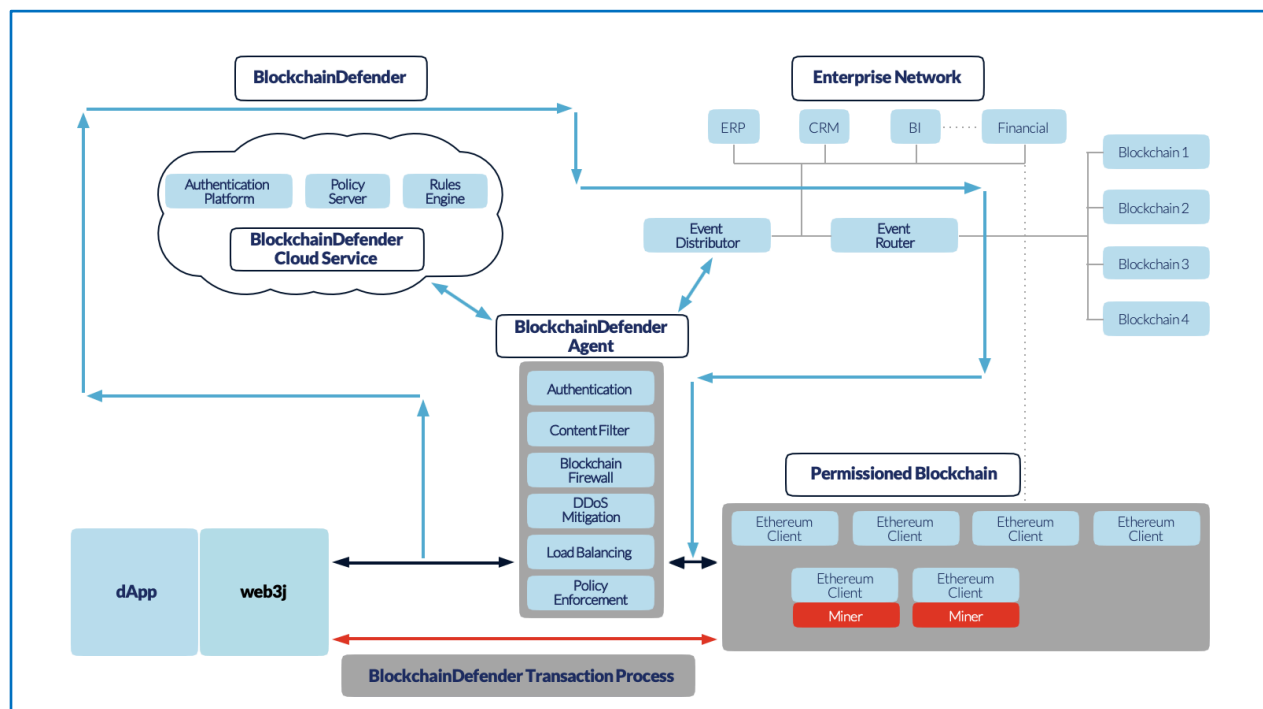
Private, permission-based blockchains are vulnerable to unauthorized access due to weak user authentication, transaction verification and policy enforcement. Once deployed, blockchain-targeted malware can be hard to detect — and impossible to delete.

It takes a strict, multipronged approach to secure private blockchain communications.

BlockSafe is taking the lead in securing the blockchain ecosystem.

BlockSafe Technologies® BlockchainDefender™ offers the most comprehensive access control and policy enforcement layer for protecting permissioned based blockchains, built on multi-patented and patent-pending technology and backed by 17 years of delivering cutting-edge cyber security solutions.

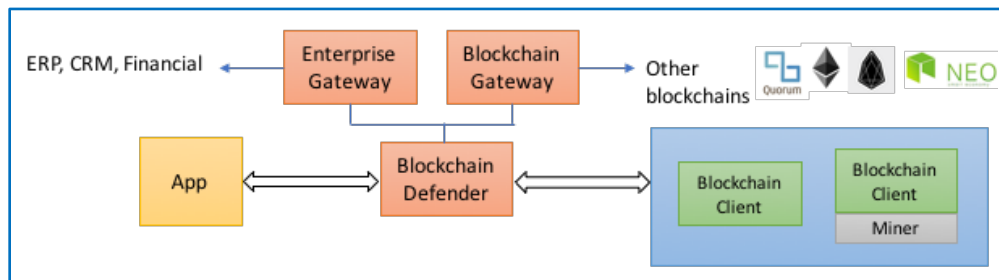
BlockchainDefender™ supports the two most common permissioned blockchain interfaces, with solutions to defend your system where vulnerabilities are greatest. And BlockchainDefender™ offers reliable, efficient integration with legacy enterprise systems and other blockchains, providing a communication gateway that lets you unleash the full power of your blockchain.



BlockchainDefender™ delivers comprehensive access control and policy enforcement to ensure security for permissioned blockchains.

With the ability to support JSON-RPC and REST API interfaces, BlockchainDefender™ allows users to query the blockchain, initiate transactions and more — without compromising the ecosystem security.

BlockchainDefender™ acts as a gateway between the application and a private blockchain. It examines every message, checks if it is allowed as per enterprise rules & policy, scans the contents of data fields for malware and authenticates transactions via a patented Out-of-Band Authentication system. It can also pass the blockchain messages to enterprise systems or other blockchains via appropriate gateways.



BlockchainDefender™ Agent

Blockchain firewall: Shields clients on the blockchain network by examining the traffic flowing between a decentralized app (such as a crypto wallet) and the blockchain network and allowing only messages that meet the policies of the organization.

Authentication: Parses the message to the blockchain, extracts the user's account identifier and sends it to the cloud software to authenticate the user. If the user successfully authenticates itself, the message is passed to the blockchain, otherwise it is blocked.

Policy enforcement: Implements the access policies of the consortium or the enterprise and enforces user roles and capabilities defined in the cloud software, allowing for granular access.

Load balancer: Acts as a load balancer to spread the traffic among the blockchain clients.

DDoS mitigation: Mitigates distributed denial of service (DDoS) attacks.

BlockchainDefender™ Cloud Service

Two-factor authentication: Supports multiple authentication methods, including out-of-band phone, OTP delivery to phone, out-of-band push, and hard, mobile and desktop tokens.

Policy server: Stores the blockchain's user access policies; defines user roles and maps the roles to capabilities.

Rules engine: Stores rules that will be used by the agent software to enforce access. For example, a rule might be to invoke two-factor authentication if the transaction is over a certain amount.

Content scanner: Scans blockchain messages to ensure that the content is not malicious.

Learn more about how BlockSafe is securing the future of crypto wallets and the entire blockchain ecosystem at: www.blocksafetech.com.

About BlockSafe Technologies®

BlockSafe Technologies, Inc. is a subsidiary of StrikeForce Technologies, Inc., a company that has successfully delivered cutting-edge cyber security solutions for over 17 years. Our solutions are protected by six patents and one pending patent. BlockSafe adds layers of security to the entire blockchain ecosystem to reduce the risk of breaches and make the crypto world a safer place.

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