



BLOCWATCH

THE FUNDAMENTALS OF BLOCKCHAIN MONITORING



MONITOR | ANALYZE | VALIDATE | SECURE

The adoption of blockchain -- also known as Distributed Ledger Technologies (DLTs) -- is growing at a rapid pace. In a PwC survey of global organizations, 84% of executives reported that they were “actively involved” with blockchain technology, from beginning research and development to testing proofs of concept and going live.

Gartner predicts that blockchain could generate \$3 trillion of global business value by 2030. Use cases for public- and private-sector blockchain include functions such as procurement, finance, customer relationship management, human resources, and legal contracts, among others. The goals of blockchain adoption include improving transaction speeds, streamlining manual processes, enhancing compliance efforts, reducing operational costs, and promoting transparency into transactions.

A strong blockchain creates trust among users. A distributed ledger creates an immutable record that cannot be changed. In the event of an audit, it becomes impossible to hide any part of the blockchain’s transaction history.

In order to maintain that integrity, however, the chain needs to function in the way it was intended. Blockchain is a significant investment for businesses as they switch from legacy systems to distributed ledgers. A single day of operational disruptions and downtime can cost an organization tens or even hundreds of millions of dollars. Managing and monitoring blockchain performance, therefore, is critical in ensuring the success of these innovations.

Why is monitoring blockchain performance important?

Blockchain management is a complex task. A single blockchain can experience thousands of transactions in a single day, making real-time human intervention difficult. Native blockchain monitoring tools in Ethereum, Hyperledger, and other open-source DLTs can provide some visibility into blockchain network performance. Yet each of these tools offers limited scope and users would need to combine, customize, and maintain them to get a full look into chain activity and performance.

A purpose-built solution removes those obstacles. By monitoring their blockchain performance, enterprises can ensure that their business processes are working as intended and their blockchain investment is functioning as expected.



How does BlocWatch monitor blockchain performance?

BlocWatch provides services that can monitor, analyze, validate, and secure blockchain. The BlocMonitor and BlocTrust tools give users actionable insights, alerts, and analytics into their blockchain activity in a customizable, web-based dashboard.

BlocWatch uses a comprehensive approach to blockchain performance monitoring that looks at network performance as well as operations and configuration management.

Network Monitoring

Network monitoring focuses on understanding blockchain health and performance and diagnosing problems when something is not working as intended.

Latent and failed transactions are among the most notable effects that network errors can have on a blockchain. Tracking these transaction errors and developing a strategy to mitigate them can improve the chain's reliability and user experience. BlocWatch gives users insights into why the errors occurred so that they can fix code and policy errors when they occur.

BlocWatch reviews key network performance metrics that include:

- Network size
- Total network bandwidth
- Transaction error rate
- Transaction throughput
- Transaction latency
- Node resource consumption (CPU, I/O)



Operations and Configuration Management

Operations and configuration management is another essential component of managing blockchain performance. Effective configuration management can help improve the efficiency and security of the chain.

Too often, simple human error can lead to critical security vulnerabilities in a blockchain. Following the best practices of an independent, third-party performance monitoring service is a proactive step businesses can take to manage chain health.

Tools from BlocWatch are key in reducing security vulnerabilities (e.g., suspicious logins, user permissions, and transaction patterns) and preventing potential system failures and outages.

BlocWatch verifies and reviews key blockchain components, including:

- Application configuration & policies
- Channel configuration & policies
- Orderer/raft configuration & policies
- Access controls

BlocWatch Dashboard

The BlocMonitor and BlocTrust tools are available in the BlocWatch dashboard. This online platform provides users with actionable insights, helpful data visualization, and easy-to-understand analytics.

With BlocWatch, users can view out-of-the-box dashboards and reports to investigate and diagnose issues related to:

- Asset inventory
- Contract usage
- Transaction volume
- Validation speeds
- Node health



Additional blockchain monitoring tools from the BlocMonitor UI enable users to perform tasks such as:

- Creating custom dashboard and reports
- Managing alerts
- Viewing transaction endorsements
- Generating auditable records
- Defining custom events and behaviors to mitigate critical issues

Contact the Experts at BlocWatch

Visit www.blocwatch.com to schedule a live demo with our experts and we will demonstrate how BlocWatch can bring your blockchain platform to the next level.

[CLICK HERE TO SCHEDULE A DEMO](#)

