

MCP SERVER

NO CODE

CLOUD HOSTED

# Blockchain.com Data MCP for AI Agents

Audit Bitcoin transaction history and real-time block data

Blockchain.com Data gives your AI agent direct access to real-time Bitcoin blockchain data. Query block heights, audit specific transactions, monitor public address balances, and check live BTC market prices directly from any compatible client.

**B** Quality Score 88.33/100

bitcoin

cryptocurrency

blockchain-data

transaction-auditing

mempool

ledger-analysis



# The connectivity layer between AI and the world's software.



Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

# Your AI Connections Run Through Vinkius Cloud

The world's largest  
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

*The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*

— Architecture principle

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## Four Pillars of the Vinkius Runtime

### 01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

### 03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

### 02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

### 04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

**AES-256**

Encryption at rest

**Ed25519**

PKI vault signatures

**24h TTL**

Ephemeral session keys

**V8 Isolate**

Sandboxed execution

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## One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

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## Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

### 01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

### 02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

**03 — SSRF Guard**

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

**05 — Cryptographic Audit Trail**

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

**04 — DLP & PII Redaction**

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

**06 — Honeypot Trap System**

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

## Emergency Kill Switch

EU AI Act Art. 14(1)  
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

**01 — Server deactivated**

The MCP server is immediately taken offline across the entire cluster.

**02 — All tokens revoked**

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

**03 — WebSocket connections killed**

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

## Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

**Control Plane**

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

**FinOps**

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

**Firewall & DLP**

PII redaction activity, sensitive data protection counters, and security event timeline.

**Agent Activity**

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

**Tool Health**

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

**Incident Log**

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at [cloud.vinkius.com](https://cloud.vinkius.com) — connect your AI agent in under 60 seconds.

# Blockchain.com Data MCP

10 tools available

Cloud-hosted on Vinkius

Need to analyze a crypto ledger without opening ten separate tabs? This MCP connects your AI agent straight to the Blockchain.com Data API. You can orchestrate complex cryptocurrency analyses right within your chat window or IDE. Instead of manually checking an address explorer, you simply ask your agent for details and get back confirmed balances, transaction histories, and network performance metrics.

Your agent pulls up everything—from monitoring mempool activity to pulling historical price charts—all while keeping the conversation flowing. If you're using Vinkius, you can connect this MCP alongside dozens of others in the catalog, giving your AI client a massive toolkit for any data requirement, whether it's finance or supply chain.

This means developers and analysts stop copying and pasting hashes and start asking natural language questions that get immediate, verified blockchain answers.

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## Core Capabilities

### 01 — Audit Bitcoin Addresses

Checks a public BTC address for its current balance and full transaction history.

### 02 — Track Block Changes

Retrieves details about the newest or a specific block using its hash, confirming all included transactions.

### 03 — Monitor Network Activity

Gets real-time statistics on the memory pool and general network health metrics for Bitcoin.

### 04 — Verify Transactions

Looks up specific transactions by hash, confirming payments and their status.

### 05 — Get Market Pricing Data

Pulls current BTC trading prices across multiple fiat currencies instantly.

# One Click on Vinkius — From Prompt to Execution

Available at [vinkius.com/mcp/blockchaincom-data](https://vinkius.com/mcp/blockchaincom-data) — connect your AI agent in three steps.

- 01** Connect your AI client to this MCP via Vinkius and grant access. This links the blockchain data API directly to your conversational context.
- 02** Tell your agent exactly what you need, like 'What was the total activity on block 835,421?' or 'Check the balance of address X'.
- 03** Your agent translates that request into a query, fetches the live data from Blockchain.com Data, and presents it back to you in plain language.

The bottom line is: your AI client handles all the API calls and raw data parsing so you just get clean answers about Bitcoin's activity.

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## Built For

This MCP is for anyone working with verifiable, immutable ledger data. It helps financial researchers who need historical price charts or web3 developers auditing smart contract interactions without leaving their editor.

### Crypto Analyst

Determines if an address has enough funds to execute a large transaction by checking its current balance and reviewing recent transaction histories.

### Financial Researcher

Compares the historical price performance of Bitcoin against other assets or tracks network difficulty changes over time using market charts.

### Web3 Developer

Writes code that needs to verify on-chain data, such as monitoring mempool activity before deploying a critical smart contract.

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## What Changes When You Connect

- 01** Check address balances instantly: Use `get_address` to see an account's total assets and its entire spending/receiving record without switching tabs.

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- 02 Monitor network congestion: Access the mempool with `get_mempool_stats` to know if a transaction is likely to confirm quickly or if the network is overloaded.

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  - 03 Get up-to-date pricing: The `get_ticker` tool pulls live BTC prices in dozens of currencies, giving you instant market context for any analysis.

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  - 04 Track every detail: When you need to verify an old payment, `get_transaction` provides full audit details on a specific hash. It's forensic accounting for crypto.

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  - 05 View network health: The `get_network_stats` tool gives you the high-level metrics—like difficulty and total block count—that analysts rely on.
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## Real-World Applications

### Verifying a large payment transfer

A client sends a wire transfer but only provides a transaction hash. You use `get_transaction` to pull the full audit details, confirming the recipient address and the exact amount moved.

### Checking an unknown wallet's activity

You suspect a wallet is compromised. You use `get_address` to pull the full transaction record, identifying all incoming and outgoing funds over time for investigation.

### Assessing an investment portfolio's risk

Before making a market prediction, you ask your agent to run `get_chart` for BTC price history over 12 months. This provides immediate context alongside current network metrics like block difficulty.

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# Patterns to Avoid

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## Relying on single-source data

### X AVOID

Checking only one external website for a balance, which might be outdated or fail to show pending transactions.

### ✓ INSTEAD

Use the `'get_address'` tool. It gives your agent comprehensive access to both confirmed and unconfirmed activity directly from the blockchain source.

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## Confusing block data with transaction details

### X AVOID

Thinking that knowing a block exists is enough; you don't know which transactions inside it are valid.

### ✓ INSTEAD

Use `'get_block'` to get the full list of contained transactions, and then use `'get_transaction'` on any single hash for specific details.

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## Ignoring market context

### X AVOID

Analyzing a transaction's value without knowing the current exchange rate or historical price movement.

### ✓ INSTEAD

Always run `'get_ticker'` first. This immediately grounds your analysis in real-time fiat currency values.

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## The Right Fit

Use this MCP when you need verifiable, granular details about Bitcoin transactions and network performance. If the core of your task involves checking an address balance, viewing a specific block's contents, or tracking market changes (like getting a historical chart), this is what you need.

Don't use it if your problem is purely internal—for example, if you just need to manage records within a CRM or send simple emails. For those tasks, an operational tooling MCP would be better. If you only need basic market sentiment without underlying ledger data, a general financial news feed might suffice. But for anything involving the actual Bitcoin ledger, this is your source of truth.

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## Blockchain.com Data: Auditing BTC Transactions with Your Agent

Manually checking transaction records means opening a dedicated explorer site, searching by hash, waiting for the page to load, and then copying key data points into a spreadsheet—all while hoping nothing breaks or times out. It's tedious and slow.

With this MCP, you simply ask your agent to investigate a specific flow of funds using `get_transaction`. Your agent pulls up every detail in real time: the source address, the destination, the amount, and the confirmation status. You get structured data instantly.

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## Blockchain.com Data: Tracking Bitcoin Market Health Metrics

Before this MCP, gathering a full picture of market health required pulling several disparate sources: one site for the current price, another for historical charts, and a third to check the overall network difficulty.

Now, you can ask your agent for `get_network_stats` alongside running `get_chart`. You get a holistic view in one query. It makes deep market research immediate.

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# Blockchain.com Data: 10 Tools for Bitcoin Ledger Analysis

Use these tools to check address histories, monitor mempool status, retrieve market prices, and audit specific blockchain blocks with precision.

#	TOOL	DESCRIPTION
01	<code>get_address</code>	Pulls the current balance and full transaction history for any specified Bitcoin address.
02	<code>get_block_count</code>	Retrieves the absolute total height of the Bitcoin blockchain, confirming how many blocks have been mined.
03	<code>get_block</code>	Gets all details about a specific block, including its hash and which transactions it contains.
04	<code>get_chart</code>	Retrieves historical data points, such as market prices or total transaction counts, for charting.
05	<code>get_latest_block</code>	Provides detailed information about the most recently mined Bitcoin block.
06	<code>get_mempool_stats</code>	Shows current statistics for the memory pool, helping track pending network load and activity.
07	<code>get_network_stats</code>	Gathers general performance metrics for the entire Bitcoin network, like difficulty and total block count.
08	<code>get_ticker</code>	Returns the live exchange rate and price of BTC in various fiat currencies (USD, EUR, GBP, etc.).
09	<code>get_transaction</code>	Fetches detailed information about a single transaction using its unique hash.
10	<code>list_unconfirmed_transactions</code>	Lists all transactions currently sitting in the mempool that have not yet been confirmed by miners.

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# See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

- U What is the current BTC price and how many transactions are waiting in the mempool right now?



## Bitcoin Market Snapshot

- **Current Price:** \$68,912.50 USD (or €63,200 EUR)
- **Mempool Status:** 4,512 unconfirmed transactions currently waiting in the memory pool.

The network is showing high load, but prices are stable.

- U Check address 1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa. What's its full history and current balance?



Here is the breakdown for that wallet:

- **Current Balance:** 10.4 BTC
- **Total Received:** 55.2 BTC over 8,900 transactions.
- **Total Sent:** 44.8 BTC across various payments.

- U Show me the latest block data and what was mined about an hour ago.



## Latest Block Details (Height: 836,102)

- **Hash:** 0x000...
- **Mined At:** 2026-06-12T14:30:00Z
- **Transactions:** 2,950 verified payments.

Separately, the block mined an hour ago had a total of 1,870 transactions and featured several high-value transfers.

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# Frequently Asked Questions

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**01 How can Blockchain.com Data help me audit cryptocurrency payments?**

It provides forensic-level access to the Bitcoin ledger. You can use your agent to check a transaction's full history and details using ``get_transaction``, confirming exactly who sent what, when, and if it was successful.

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**02 Does Blockchain.com Data give me real-time BTC pricing?**

Yes, the MCP includes tools that pull live market data. You can ask your agent for ``get_ticker`` to see Bitcoin's current price across multiple global fiat currencies.

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**03 What if I need to know about pending transactions? Is that covered by Blockchain.com Data?**

The MCP monitors the mempool, which tracks unconfirmed activity. You can use ``get_mempool_stats`` or list unconfirmed transactions to see what's waiting in line before it gets mined.

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**04 Can I use Blockchain.com Data for historical analysis?**

Absolutely. It allows you to retrieve historical data points, letting you compare past market prices using ``get_chart`` or review ledger details from old blocks.

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**05 What is the difference between checking a block and checking an address with Blockchain.com Data?**

Checking an address gives you a summary of its activity (balance, total sent/received). Checking a specific block shows every single transaction that was confirmed in one mining cycle.

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# Go Live in 60 Seconds

Get your connection token from [cloud.vinkius.com](https://cloud.vinkius.com), then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT

WHERE TO CONFIGURE



Claude AI

Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint



Cursor

Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint



VS Code

Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"blockchaincom-data": {  
"url": "..." }`



Windsurf

MCP Settings → `mcp_settings.json` → Add endpoint URL



ChatGPT

Settings → Tools & plugins → Add MCP server → Paste endpoint



Gemini

Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI  
ABOUT THIS

Let your preferred AI  
explain this MCP server



Ask ChatGPT



Ask Claude



Ask Perplexity



Ask Gemini



Ask Grok



READY TO CONNECT

# Blockchain.com Data is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

[Start at cloud.vinkius.com](https://cloud.vinkius.com) →

[vinkius.com](https://vinkius.com) · [support@vinkius.com](mailto:support@vinkius.com)

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