

MCP SERVER

NO CODE

CLOUD HOSTED

Tinybird Data Platform MCP

Audit, query, and manage real-time data flows in chat.

Tinybird Data Platform connects your AI agent directly to a real-time data warehouse, giving you hands-on control over complex analytics infrastructure. You can manage all your data sources and transformation logic from chat alone. Use this MCP to list every available workspace, check row counts for any data source, audit pipeline status, or run arbitrary SQL queries against live data. It's full operational oversight for data engineers.

A+ Quality Score 100/100

real-time-data

data-ingestion

sql-queries

data-pipelines

api-endpoints

analytics-infrastructure



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

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

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

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 — connect your AI agent in under 60 seconds.

Tinybird Data Platform MCP

10 tools available

Cloud-hosted on Vinkius

This MCP lets you treat your entire analytical infrastructure like a conversational service. Instead of opening the Tinybird dashboard and clicking through five different tabs just to check if a data stream is healthy, your agent handles it all. You can ask it to list every workspace available or inspect a specific Data Source's current ingestion stats—all in natural language. It lets you run complex SQL queries without writing boilerplate connection code yourself. Furthermore, the platform allows deep dives into how your data changes, enabling you to retrieve the exact SQL logic used by any Pipe and even execute those published transformations for instant results. Connecting this MCP through Vinkius means you get centralized control over all these critical functions from one place, making operational monitoring feel like a simple chat conversation.

Core Capabilities

01 — Inventory Data Sources

List every data source and workspace available in your current analytical environment.

02 — Audit Data Source Status

Get detailed information, including row counts and storage sizes, for any specified data source.

03 — Examine Data Pipelines

List all transformation pipelines (Pipes) or retrieve the specific SQL logic used within them.

04 — Run Ad-Hoc Queries

Execute any arbitrary SQL query against your live data warehouse using ClickHouse dialect.

05 — Analyze Pipeline Execution

Run a specific Pipe and immediately retrieve the results as structured JSON output.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/mcp/tinybird-data-platform — connect your AI agent in three steps.

- 01** Subscribe to this MCP on Vinkius and provide your Tinybird Admin Token.
- 02** Ask your agent to perform an action, such as listing all available data sources or checking the stats for a specific Data Source.
- 03** The agent executes the necessary command, pulls the real-time metrics, and presents the results directly in chat.

The bottom line is you manage complex data flows using simple conversation prompts.

Built For

Data Engineers and Analytics Leads need this. They're tired of context-switching between the dashboard, SQL IDEs, and monitoring tools just to validate a single query or audit a failing pipeline. This MCP puts full operational visibility into your chat window.

Data Engineer

Audits pipe logic using `list_pipe_nodes` to understand transformation dependencies, and runs `execute_sql_query` for quick validation during development.

Product Analyst

Checks data source stats using `get_datasource_stats` or executes a `query_pipe_data` command without having to navigate the entire analytics platform.

DevOps Team Lead

Monitors ingestion performance and token scopes by calling `list_auth_tokens`, ensuring all pipelines are running within scope.

What Changes When You Connect

- 01** Stop guessing if your data is fresh. Use `get_datasource_stats` to immediately check row counts and ingestion usage for any source without opening a dashboard tab.

-
- 02 Debugging complex pipelines just got easier. You can use `list_pipe_nodes` or `get_pipe_details` to see the exact SQL logic used in any transformation, accelerating development time.

 - 03 Run queries instantly. Use `execute_sql_query` to fire off ad-hoc analytical requests and explore your data directly via natural language command.

 - 04 Full infrastructure visibility. Need to know what workspaces exist? `list_workspaces` gives you a quick inventory of everything connected.

 - 05 Test transformations safely. Instead of running an entire Pipe in the GUI, use `query_pipe_data` to execute it and get the structured JSON output immediately.
-

Real-World Applications

Checking data health on a Friday afternoon

A product analyst needs to know if the user event stream has been updated since last night's deployment. Instead of clicking into the 'user_events' source and scrolling through metrics, they just ask their agent to `get_datasource_stats`. The agent instantly replies with the latest row count and ingestion status.

Quickly proving a hypothesis

A manager wants to know how many users came from 'partner X' last month. Instead of building a new dashboard and waiting for approval, they run an `execute_sql_query` command directly through the agent, getting the answer in seconds.

Debugging a broken data pipeline

A data engineer finds that the 'monthly_report' pipe is failing intermittently. They use `list_pipe_nodes` to see if the SQL logic changed, then run `get_datasource_details` on the upstream source to verify field types, pinpointing the failure point immediately.

Auditing security access

The DevOps team needs to verify which services have access to sensitive data. They use `list_auth_tokens` to generate a full audit trail of all active tokens and check their scopes, ensuring least privilege is maintained.

Patterns to Avoid

Treating the MCP like an API wrapper

X AVOID

Sending repetitive commands like 'List Data Sources. Now get stats for Data Source A. Then list Pipes.' This requires multiple steps and context switching.

✓ INSTEAD

Ask your agent to consolidate: 'Give me a full audit of data sources, including their current row counts and listing all associated pipes in the workspace.' The MCP handles the sequence.

Over-engineering simple queries

X AVOID

Wasting time creating complex views or new dedicated dashboards just for one simple metric.

✓ INSTEAD

Use `execute_sql_query`. If you need a quick number, run it directly with the agent instead of building permanent infrastructure.

Assuming data completeness

X AVOID

Running `query_pipe_data` and assuming the result set is perfect without checking the source.

✓ INSTEAD

Always preface pipe execution by calling `get_datasource_stats` first. This verifies that the underlying Data Source has sufficient, up-to-date metrics.

The Right Fit

Use this MCP if your core problem is accessing and managing real-time data infrastructure through chat conversation. If you need to run ad-hoc queries (`execute_sql_query`) or audit the state of multiple connected services (`list_datasources`, `list_auth_tokens`), this is built for you. Don't use it if your only goal is basic file storage management; that requires a different type of integration. Similarly, don't rely on it to fix bad data quality—it only reports what the data *is*. If you just need to build an entirely new reporting layer from scratch without querying existing sources, look for ETL tools rather than this MCP.

The Pain of Context-Switching Data Checks

Today, checking the health of your analytics platform is a multi-step chore. You open the main dashboard to check Data Source A's row count. Then you tab over to the Pipelines section to see if Pipe B has run recently, and finally, you might have to copy a token ID into a separate terminal window just to audit the permissions. It's clicking, switching tabs, and constantly copying credentials.

With this MCP, all that operational visibility lives inside your chat window. You simply ask your agent to `get_datasource_stats` for Source A while simultaneously `listing_pipes` to check Pipe B's status. The agent gathers all that disparate information and presents it back in one clean, conversational response.

Tinybird Data Platform MCP: Querying Live Insights

Gone are the days of manually running a query in a separate client just to validate if the data is ready. You can now use `execute_sql_query` and then immediately follow up with `query_pipe_data` on the resulting dataset, all within the same chat session.

The result is a continuous flow of information, making your entire analytical workflow feel less like software operations and more like having an expert teammate sitting right next to you.

Tinybird Data Platform with 10 Tools

Use these tools to manage everything from listing workspaces to executing complex real-time SQL queries against your entire data platform.

#	TOOL	DESCRIPTION
01	<code>execute_sql_query</code>	Runs an arbitrary SQL query directly against the Tinybird workspace data.
02	<code>get_datasource_details</code>	Retrieves detailed information about a specific Data Source in the platform.
03	<code>get_pipe_details</code>	Gets comprehensive details for any specified data transformation Pipe.
04	<code>get_datasource_stats</code>	Pulls current ingestion and usage statistics for a selected Data Source.
05	<code>list_datasources</code>	Retrieves a full list of every data source connected to the workspace.
06	<code>list_pipe_nodes</code>	Lists all individual SQL nodes contained within a specific transformation Pipe.
07	<code>list_pipes</code>	Retrieves a list of every available data transformation pipe in the workspace.
08	<code>list_auth_tokens</code>	Lists all authentication tokens, allowing you to audit access control within the workspace.
09	<code>list_workspaces</code>	Retrieves a list of every available data workspace across your account.
10	<code>query_pipe_data</code>	Executes an entire Pipe and returns the resulting dataset as structured JSON.

See It in Action

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

U List all data sources in my Tinybird workspace.



Fetching data sources... I found 3 sources: 'events_log' (1.2M rows), 'users_data' (50k rows), and 'api_analytics' (800k rows). Which one would you like to inspect?

U Run the pipe 'monthly_revenue_summary' with limit 5.



Executing pipe... Here are the top 5 records from 'monthly_revenue_summary': 1. Jan (\$12k), 2. Feb (\$15k), 3. Mar (\$11k)...

Frequently Asked Questions

01 How does Tinybird Data Platform MCP list all data sources?

You use the `list_datasources` tool. It immediately provides a comprehensive inventory of every source connected to your workspace, giving you an at-a-glance view of what's available for analysis.

02 Can I check my data pipeline status using Tinybird Data Platform MCP?

Yes. You can use `list_pipes` to see every defined pipe, and then `get_pipe_details` or `query_pipe_data` to understand its logic or execute it for results.

03 What is the difference between `execute_sql_query` and `query_pipe_data`?

`execute_sql_query` runs any SQL you write, giving maximum flexibility. `query_pipe_data` executes a pre-built Pipe, ensuring that your logic follows established data transformation rules.

04 Does Tinybird Data Platform MCP help with security audits?







Absolutely. You can use `list_auth_tokens` to retrieve a full list of all authentication tokens and audit who has access across the workspace.

Go Live in 60 Seconds

Get your connection token from 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 <code>"tinybird-data-platform": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → 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

Tinybird Data Platform 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 · support@vinkius.com

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