

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

NYC Transit & Waterway MCP

Get real-time and historical NYC transit data through your agent.

NYC Transit & Waterway MCP provides direct access to municipal transit and waterway records for New York City. Your AI client can pull ridership numbers for the NYC Ferry and Staten Island Ferry, locate bus stop shelters, find real-time passenger information signs, and analyze school bus routes or breakdowns. It works without requiring you to manage your own API keys.

A+ Quality Score 100/100

new-york

nyc

transit

ferry

ridership

bus



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.

NYC Transit & Waterway MCP

8 tools available

Cloud-hosted on Vinkius

You can query NYC municipal transit and waterway records directly through your AI client. This MCP connects your agent to official NYC Open Data, covering everything from ferry ridership to school bus operations. If you need to analyze passenger flow, you can pull hourly NYC Ferry boardings by route or stop. For those looking at infrastructure, you can pinpoint the exact locations of bus stop shelters and real-time passenger information signs across the boroughs. The data includes school-year specific records for OPT bus breakdowns and DOE school bus routes, organized by vendor or route number. Whether you are looking at the Staten Island Ferry's daily counts or identifying the most frequent breakdown routes for school buses, this MCP gives your agent the raw data needed for transit-oriented analysis and city operations research.

Core Capabilities

01 — Ferry Ridership Analysis

Your agent uses this to track passenger volume for NYC Ferry and Staten Island Ferry routes.

02 — Infrastructure Mapping

Your AI client identifies the physical locations of bus shelters and real-time information signs.

03 — School Bus Monitoring

Your agent pulls route details and breakdown incident reports for the school year.

04 — Transit Demand Modeling

Your agent uses boarding trends and stop rankings to help model passenger demand.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/nyc-transit-waterway — connect your AI agent in three steps.

- 01 Connect your AI client to the MCP via Vinkius.
- 02 Ask your agent a question about NYC transit or ferry ridership.
- 03 The agent selects the appropriate tool from the NYC Transit & Waterway set.
- 04 The tool fetches the data from NYC Open Data without needing an API key.
- 05 Your agent processes the raw data and gives you a direct answer.

Connecting to this MCP gives your AI client immediate access to NYC transit datasets.

Built For

This MCP is built for professionals working with urban movement and city infrastructure.

Transport Planners

They use the tool to analyze ridership trends and stop locations for network planning.

Multimodal Researchers

They pull ferry and bus data to study how different transit modes interact.

City Operations Analysts

They monitor school bus breakdowns and service reliability for municipal oversight.

What Changes When You Connect

- 01 Access NYC Open Data without managing your own API keys.
- 02 Query historical ferry ridership dating back to 2017.

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- | | |
|----|--|
| 03 | Get specific school bus operational data organized by school year. |
| 04 | Locate physical transit assets like shelters and signage via your agent. |
-

Real-World Applications

Route Reliability Audits

Identify which school bus routes experience the most frequent breakdowns during a specific school year.

Ferry Demand Forecasting

Analyze boarding trends at specific NYC Ferry stops to predict future passenger needs.

Infrastructure Audits

Map out the locations of bus stop shelters and real-time information signs across different boroughs.

Commuter Flow Studies

Examine Staten Island Ferry ridership levels to understand daily commuting patterns.

Patterns to Avoid

Vague transit queries

❌ AVOID

Asking your agent to find all ferry ridership data for the entire city without any filters.

✓ INSTEAD

Use specific parameters like route or stop name with `search_ferry_ridership` to get useful, filtered results.

Incorrect school year formats

❌ AVOID

Requesting school bus breakdown data for the year 2023.

✓ INSTEAD

You must use the YYYY-YY format, such as 2023-24, when using `search_bus_breakdowns`.

Broad infrastructure searches

❌ AVOID

Trying to find every bus shelter in New York City at once.

✓ INSTEAD

Narrow your search by borough or street using `list_bus_stop_shelters` to avoid overwhelming your agent with data.

The Right Fit

Connect this MCP if you need to pull real-time or historical municipal transit data for urban planning or logistics. Do not connect it if you are looking for subway or rail data, as this MCP focuses on ferries, buses, and school transport.

NYC Transit & Waterway 8 Tools

This MCP provides direct access to NYC Ferry ridership, Staten Island Ferry counts, school bus reliability, and transit infrastructure locations.

#	TOOL	DESCRIPTION
01	list_si_ferry_ridership	This tool retrieves daily Staten Island Ferry ridership counts between the Port Authority Bus Terminal and St. George. You can pin a specific date to get the most recent counts first.
02	list_bus_stop_shelters	This tool provides the locations of NYC bus stop shelters. You can filter the results by borough, street, or specific shelter ID.
03	list_rtpi_signs	This tool locates real-time passenger information (RTPI) signs. You can search for these sign locations by stop name, corner, or borough.
04	search_bus_breakdowns	This tool accesses OPT school bus breakdown and late incident records. You must specify the school year in YYYY-YY format, such as 2024-25.
05	search_ferry_ridership	This tool pulls hourly NYC Ferry ridership data by route, stop, and direction. The dataset includes records from 2017 to the present.
06	search_school_bus_routes	This tool lists DOE school bus routes, service types, and operating vendors. You can filter by school year, route number, or vendor.
07	top_bus_breakdown_routes	This tool identifies school bus routes with the highest number of breakdowns. It ranks the most troubled routes first for a given school year.
08	top_ferry_stop_boardings	This tool finds the NYC Ferry stops with the highest boarding numbers. You can set a look-back window of up to 730 days or restrict it to a specific route.

See It in Action

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

U Which NYC Ferry stop had the most boardings in the last 30 days?



The `top_ferry_stop_boardings` tool with a 30-day window identifies the busiest stops, while `search_ferry_ridership` provides the specific daily rows for those routes.

U How many riders used the Staten Island Ferry in January 2026?



You can use `list_si_ferry_ridership` to get the daily ridership counts for the Port Authority to St. George route for that period.

U Show me the school bus routes run by a specific vendor in 2024-25.



The `search_school_bus_routes` tool will return the routes operated by that vendor for the 2024-25 school year.

Frequently Asked Questions

01 Do I need an API key to use this NYC transit data?

No. Vinkius hosts the MCP and manages the connection, so you can use it without your own API key.

02 How far back does the NYC Ferry ridership data go?

The ferry ridership data is available from 2017 to the present.

03 How is school bus data organized?

School bus breakdowns and routes are organized by school year, such as 2024-25, rather than by calendar dates.

04 Can I find the location of bus shelters?

Yes. You can use the `list_bus_stop_shelters` tool to find locations by borough, street, or shelter ID.

05 Which AI clients can use this MCP?

Any MCP-compatible client like Claude, Cursor, Windsurf, or VS Code can use this tool.

06 Do I need an API key?

No. NYC Open Data serves all public datasets anonymously over its SODA API (data.cityofnewyork.us). This MCP defines no credentials and needs nothing configured.

07 Why does `top_ferry_stop_boardings` use a window?

Boardings by stop are an aggregate over years of history, so the tool bounds the look-back: 90 days by default, up to 730 days via the `days` parameter. Pass `days: '365'` to widen the window.

08 Which dates do the transit datasets cover?

NYC Ferry daily data runs from 2017; Staten Island Ferry rows carry service dates through early 2027; OPT bus breakdowns and school bus routes are organized by school year ("YYYY-YY"). Dispatch records lag a few months, so the newest months can be empty.

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>"nyc-transit-waterway": { "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

NYC Transit & Waterway 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 →

vinkius.com · support@vinkius.com

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LICENSE & USAGE

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