

MCP SERVER

NO CODE

CLOUD HOSTED

# Netrows MCP

## Track Live Flights and Analyze Global Aviation Data

Netrows tracks global flights, monitors aircraft movements, and provides deep airport intelligence through a single MCP. Search for active routes by number or origin-destination pair, check real-time positions of airborne planes, or pull historical data on specific aircraft registrations. It gives your AI agent full control over aviation operations analysis.

**A+** Quality Score 100/100

flight-tracking

aircraft-intelligence

airport-data

real-time-data

aviation-api



# 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 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

# Netrows MCP

12 tools available

Cloud-hosted on Vinkius

Need to understand global air traffic? This connector links your AI client directly to the Netrows Aviation API, giving you command over everything from live flight tracking to deep airport research. Forget opening a dozen browser tabs or wrestling with complex data feeds. Instead, you talk to your agent and it handles all the complexity.

It lets you ask natural language questions like, 'What are all United flights running out of EWR today?' or 'Tell me about aircraft N12345.' Your AI client acts as a dedicated flight operations analyst, pulling together schedules, real-time coordinates, and technical specs instantly. This integration lives within the Vinkius catalog, so you connect once to access this power alongside thousands of other services.

Whether you're tracking a plane crossing continents or just need to know if your pickup airport is busy, this MCP gathers all the necessary data—from searching for airports by city name to monitoring arrivals and departures at any global hub. It's about getting accurate answers without lifting a finger.

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## Core Capabilities

**01 — Monitor live flight movements**

Get continuous, time-stamped location data for an airborne plane, allowing you to visualize its current path and estimated arrival time.

**03 — Research aircraft assets and fleets**

Look up details on any plane by its registration number, including its type, age, owner, and engine specifications.

**05 — Check account usage status**

Monitor your API credit consumption to manage your budget and avoid rate limits during heavy queries.

**02 — Analyze airport activity**

List all scheduled or actual flights arriving at or departing from a specific airport worldwide, providing traffic patterns in real-time.

**04 — Get airline and route intelligence**

Pull detailed information about specific airlines or retrieve full flight schedules between two major airports.

# One Click on Vinkius — From Prompt to Execution

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

- 01 Subscribe to this MCP and enter your Netrows API key from the Developer Portal.
- 02 Connect it to your preferred AI client (Claude, Cursor, etc.).
- 03 Ask your agent a question about flight status, airport activity, or aircraft history.

The bottom line is you get instant access to global aviation data without needing to write any code or navigate external websites.

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## Built For

This MCP is essential for anyone who deals with complex logistics, air travel planning, or industry analysis. If your job requires knowing where a plane is, or if you need deep data on airline operations, this is for you.

### **Airport Operations Manager**

You use it to monitor real-time traffic patterns and list all arriving and departing flights at major hubs for ground handling planning.

### **Airline Analyst**

You track competitor operations, analyze route networks, and look up fleet sizes by querying specific airline information.

### **Logistics Coordinator**

You check detailed flight statuses for shipments or personnel, ensuring timely arrival data is available regardless of the disruption.

### **Aviation Enthusiast**

You research specific aircraft registrations to find out their full history, manufacturer, and operational status.

## What Changes When You Connect

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- 01 Stop manually cross-referencing flight data. Use 'get\_flight\_details' to pull a single, comprehensive record showing the aircraft type, gate number, and scheduled vs. actual times for any known flight.

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  - 02 Gain immediate operational awareness at major hubs. By using 'get\_airport\_flights', you get an instant list of all arrivals and departures at any airport, perfect for ground crew planning or coordinating pickups.

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  - 03 Deepen your research with aircraft specs. Instead of guessing, use 'get\_aircraft\_info' to instantly verify a tail number's manufacturer, owner, engine type, and age.

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  - 04 Plan routes quickly. If you need to know what services are available between two cities, 'get\_flight\_schedule' provides all scheduled options in one query.

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  - 05 Monitor entire organizations at once. Use 'search\_aircraft' or 'get\_airline\_flights' to instantly see the full scope of a company's fleet or current operations.
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## Real-World Applications

### Managing unexpected airport congestion

The ops manager asks, 'What is happening at JFK right now?' The agent runs 'get\_airport\_flights', which returns a list of all inbound and outbound flights. This allows the team to reallocate ground crews before delays become critical.

### Investigating competitor routes

The analyst asks, 'What is Delta doing this week?' The agent uses 'get\_airline\_flights' and 'get\_flight\_schedule' together. It compiles a report showing all current operations and planned routes for the entire airline.

### Tracking a high-value shipment

The logistics coordinator needs to know where a plane is right now. They use 'track\_flight' with the flight number, getting continuous coordinates that confirm the aircraft is still on track for its estimated arrival.

### Planning an international trip itinerary

The enthusiast asks, 'What airports serve Chicago?' The agent runs 'search\_airports', immediately providing a list of all relevant regional and major hubs. Then, they can use the airport codes to plan flight searches.

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## Patterns to Avoid

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### Assuming general search is enough

#### X AVOID

Asking 'Show me United flights from EWR to SFO' and only getting a list of possible routes, but no current status or timing.

#### ✓ INSTEAD

Use the combination of 'search\_flights' first for active routes, then run 'get\_flight\_details' on specific flight numbers like UA123 to get live gate assignments and times.

### Ignoring resource constraints

#### X AVOID

Running dozens of detailed searches without checking your quota, leading to repeated failure messages about exceeding rate limits.

#### ✓ INSTEAD

Always check 'get\_account\_usage' first. This keeps you aware of your API consumption and helps plan large analytical queries responsibly.

### Confusing airport search with activity

#### X AVOID

Asking for 'all flights in London' only to get a list of airports, but no actual current flight data.

#### ✓ INSTEAD

First use 'search\_airports' to find the codes (e.g., LHR). Then, run 'get\_airport\_flights' using those specific airport codes to get real-time traffic.

## The Right Fit

Use this MCP if your core need involves tracking dynamic physical movements or accessing structured aviation records. Specifically, if you need continuous coordinates (use 'track\_flight'), current arrivals/departures ('get\_airport\_flights'), or specific historical specs on planes ('get\_aircraft\_info'). Don't use it if you just need a general definition of an airport; in that case, 'search\_airports' is enough. However, if your goal is simply to check the weather at a location,

this MCP isn't built for meteorology—it's purely operational and structural flight data.

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## Dealing with aviation logistics used to mean juggling dozens of tabs.

Airlines, airports, and government websites all have different tracking portals. To figure out if a plane was delayed or where it landed, you spent time hopping between flight trackers, airport status pages, and airline schedules. You'd copy one flight number into a spreadsheet, then open another tab to see the gate changes, repeating that cycle until your brain felt fried.

Now, just ask your agent. Whether it's checking which planes an operator owns via 'search\_aircraft', or getting full details on a specific route using 'get\_flight\_schedule', you get a single, clean report instantly. Your AI client acts as the expert analyst, pulling all the disparate data together for you.

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## Netrows provides real-time flight status and airport intelligence.

You no longer have to manually find the correct IATA code or guess if a plane is in the air or just on the ground. The MCP handles that complexity, providing both static information (using 'get\_airport\_info') and dynamic status updates for every phase of flight.

The result is a single source of truth. You get accurate operational intelligence—whether it's tracking the immediate position via 'track\_flight' or analyzing long-term route patterns—without ever leaving your chat window.

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## Netrows: 12 Available Tools

These tools let your agent search specific flight numbers, check real-time plane positions, list airport traffic, and pull deep data on aircraft assets.

#	TOOL	DESCRIPTION
01	<code>get_account_usage</code>	Checks your current API credits and usage quota so you know if you can run large queries.
02	<code>get_aircraft_info</code>	Retrieves detailed specifications, ownership information, and type for any registered aircraft using its tail number.
03	<code>get_airline_flights</code>	Lists all active flights currently operated by a specific airline code.
04	<code>get_airport_flights</code>	Provides a full list of arriving and departing flights at any designated airport.
05	<code>get_airline_info</code>	Gathers metadata for an airline, including its IATA code, fleet size, and major operating hubs.
06	<code>get_airport_info</code>	Gets static data for any airport, like its geographic coordinates and full official codes (IATA/ICAO).
07	<code>get_flight_details</code>	Pulls complete status information for a single known flight, including gate numbers and estimated times.
08	<code>get_flight_schedule</code>	Finds all scheduled flights operating between two specific airports on a given route.
09	<code>search_aircraft</code>	Searches and lists every aircraft operated by an entire airline or aviation company.
10	<code>search_airports</code>	Finds all airports serving a specific city, including major international and regional locations.
11	<code>search_flights</code>	Searches for active or recent flights using a flight number, callsign, or origin-destination pair.
12	<code>track_flight</code>	Returns continuous, timestamped position data to track the real-time location and trajectory of an airborne plane.

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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** Search for all active United Airlines flights from Newark to San Francisco.



Searching Netrows Aviation API... I found 5 active United flights on the EWR-SFO route today: UA123 (Boeing 737-900, departed EWR 08:15 EST, en-route at FL370, ETA SFO 11:42 PST), UA456 (Boeing 757-200, departed 10:30 EST, en-route at FL350, ETA 14:05 PST), UA789 (Airbus A320, departed 13:45 EST, currently climbing through FL280, ETA 17:18 PST), UA234 (Boeing 737-MAX 9, scheduled departure 16:20 EST), and UA567 (Boeing 787-9, scheduled 19:00 EST). Would you like detailed tracking data for any of these flights?

### **U** Show me all airports that serve the city of London and their current flight activity.



Searching London airports... I found 6 airports serving the London metropolitan area: London Heathrow (LHR/EGLL) — 412 flights today (268 arrivals, 144 departures), London Gatwick (LGW/EGKK) — 287 flights (178 arrivals, 109 departures), London Stansted (STN/EGSS) — 195 flights (121 arrivals, 74 departures), London Luton (LTN/EGGW) — 143 flights (89 arrivals, 54 departures), London City (LCY/EGLC) — 98 flights (61 arrivals, 37 departures), and London Southend (SEN/EGMC) — 34 flights (21 arrivals, 13 departures). Total: 1,169 flights across all London airports today. Would you like detailed flight lists for any specific airport?

### **U** Tell me about aircraft N12345 — who owns it, what type is it, and what flights has it been operating?



Looking up aircraft N12345... This is a Boeing 737-800 (registration N12345) registered in the United States, operated by United Airlines. Built in 2018 (6 years old), equipped with 2 CFM56-7B jet engines. Aircraft category: Commercial Airline. Current status: Active. Recent flight activity shows this aircraft has been primarily operating United domestic routes including EWR-LAX, SFO-IAH, and ORD-DEN. Would you like me to track its current flight or show its complete recent flight history?

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# Frequently Asked Questions

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## 01 How do I check if a flight is delayed using Netrows MCP?

You use 'get\_flight\_details'. This tool provides the scheduled versus actual times, allowing you to see immediately if there's a delay or status change.

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## 02 Can Netrows MCP tell me what planes an airline operates?

Yes. Use 'search\_aircraft' to list every aircraft registered and operated by a specific airline, giving you the full fleet overview.

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## 03 What is the difference between search\_flights and track\_flight using Netrows MCP?

Use 'search\_flights' for general queries or finding routes by number/pair. Use 'track\_flight' only when you need continuous, minute-by-minute coordinates of an airborne plane.

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## 04 How do I find all airports in a metropolitan area with Netrows MCP?

Use 'search\_airports' and input the city name. This returns a list of every associated airport, giving you their codes for later use.

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## 05 Is it safe to monitor API usage with get\_account\_usage?

Yes, this tool is essential for good data hygiene. It shows your current credit balance so you can budget and plan complex queries without running into unexpected rate limits.

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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 `"netrows": { "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

# Netrows 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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