MCP SERVER | NO CODE | CLOUD HOSTED

AeroAPI (FlightAware) MCP for AI Agents

Monitor Global Flight Status and Audit Airport Logistics

AeroAPI connects your AI client directly to FlightAware's real-time global flight data. It lets you audit complex logistics searches, instantly tracking specific flights or auditing the schedules of any major airport worldwide.

A+ Quality Score 100/100

flight-tracking | aviation-data | real-time-logistics | airport-schedules | flight-status

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vinkius.com/mcp/aeroapi-flightaware

SCAN TO VIEW

The infrastructure that powers AI agents in the real world.

Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect 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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

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.

Agent Activity

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

FinOps

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

Tool Health

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

Firewall & DLP

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

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.

AeroAPI (FlightAware) MCP

5 tools available
Cloud-hosted on Vinkius

Stop juggling multiple tabs and manual lookups when planning supply chains or monitoring travel. AeroAPI gives your agent authoritative access to live aviation data from FlightAware. Instead of building custom scripts for every flight status check, you just ask your AI client what you need. Your agent can instantly track a specific plane by its ID, audit the entire arrival schedule at an airport, or pull deep metadata about any location—all without you needing to open a dedicated flight tracker website. This capability turns complex logistics research into simple conversation. By connecting AeroAPI through Vinkius, your AI client becomes a real-time aviation consultant, ensuring every data point for departures, arrivals, and airport details is precise and current.

Core Capabilities

01 — Check Service Health

Verify if the entire AeroAPI service is currently operational before running complex queries.

02 — Retrieve Airport Details

Get location and metadata details for any specific airport using its ICAO or IATA code.

03 — Audit Specific Flight Statuses

Pull comprehensive, high-resolution status data for a single flight, including origin, destination, and current enroute status.

04 — List Scheduled Airport Flights

Generate lists of flights—whether they're scheduled to arrive, depart, or are currently in the air—for an entire airport.

05 — Search Across Flight Parameters

Find potential flight routes by querying criteria like origin, destination, or a partial identifier.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/aeroapi-flightaware** — connect your AI agent in three steps.

01 Subscribe to this MCP and enter your personal FlightAware AeroAPI Key.

02 Connect the key to your preferred AI client (Claude, Cursor, etc.) through Vinkius.

03 Ask your agent a natural language question about flight status or airport schedules.

The bottom line is you tell your AI what aviation data you need; it runs the query and hands you the precise results.

Built For

This MCP is for anyone who deals with complex, time-sensitive movement of goods or people. If you're tired of clicking through multiple dashboards to verify flight timelines or audit airport schedules, this tool saves hours.

Logistics Manager

Needs immediate status updates for shipments and must quickly pull arrival metadata to coordinate ground transport.

Aviation Researcher

Requires the ability to audit global flight patterns or compare airport schedules across multiple continents without manual searching.

Travel Operations Lead

Needs rapid, conversational auditing of flight statuses and identifying relevant airport markers for client communication.

What Changes When You Connect

01 Get real-time visibility into flight status. Instead of manually checking a website, your agent can pull detailed information on specific flights using the `get_flight_details` tool.

02 Simplify airport oversight. Use `list_airport_flights` to quickly audit arrival and departure schedules for any major global hub in one conversation.

03 Improve logistics planning by finding data points fast. The `search_flights` capability lets you locate potential routes based on simple origin or destination queries, not just flight IDs.

04 Deepen research with metadata. Quickly gather unique airport codes and timezone information using `get_airport_details` to ensure your classification is accurate.

05 Automate the audit process. You can reliably check the system's operational status via `check_api_status`, ensuring your entire workflow never breaks down due to API issues.

Real-World Applications

Coordinating a disrupted shipment

A logistics manager asks their agent, 'What's the status of all flights into London Heathrow today?' The agent runs `list_airport_flights` and provides a real-time summary of notable arrivals and departures so the ground team can reroute resources.

Verifying travel routes for an audit

An aviation researcher needs to compare airport codes across three continents. The agent uses `get_airport_details` multiple times, pulling necessary metadata and time zone information into a structured report for comparison.

Planning emergency rerouting

The operations lead asks the agent to 'Find all possible routes from Atlanta to Chicago.' The agent runs `search_flights`, narrowing down options instantly based on available criteria, saving hours of manual searching.

Preparing a client presentation

A travel professional needs details for JFK. They ask the agent about 'John F. Kennedy International Airport' and use `get_airport_details` to pull location and time zone data, making their presentation authoritative.

Patterns to Avoid

Assuming general search works

✗ AVOID

Asking the agent to 'Check flight status near me' without specifying an airport or route. This gives too broad of a result.

✓ INSTEAD

To get specific results, always use `search_flights` and provide at least two key points: an origin AND a destination.

Mixing up tool inputs

✗ AVOID

Trying to pass a flight ID into the airport details checker. This will fail because the tools expect different types of codes.

✓ INSTEAD

Remember that `get_airport_details` needs an IATA or ICAO code, while `get_flight_details` requires a full flight identifier (like BA214).

Over-relying on single data points

✗ AVOID

Only checking the current status of one plane and calling it 'the whole picture.' You might miss delays at the destination.

✓ INSTEAD

After getting flight details, immediately follow up by asking the agent to run `list_airport_flights` for the destination airport to audit its overall capacity.

The Right Fit

Use this MCP if your job involves tracking movement—be it cargo, people, or data flow—and requires real-time aviation information. You need to know when a flight lands, where an airport is located, or what the status of routes are right now. Don't use this if you simply need general map coordinates; for that, a standard mapping service works fine. Also, don't rely on it if your data source isn't directly connected to FlightAware's live feeds—the accuracy and timeliness are guaranteed by these specific tools. If you just need basic flight tracking without the ability to audit entire airport schedules or pull metadata, there are simpler options, but AeroAPI gives you the complete operational picture.

AeroAPI (FlightAware) MCP: Auditing Global Flight Schedules for Logistics

Today, coordinating logistics means constant manual cross-referencing. You pull up a flight tracker to see if the plane is moving, then open another site to check the airport's gate capacity, and finally use a spreadsheet to confirm the time zone for customs paperwork. It takes clicks, tabs, and half an hour just to get a clear picture.

With AeroAPI, your agent handles this entire process conversationally. You ask about arrivals at London Heathrow, and it combines status updates with scheduling data instantly. You don't just get a list; you get the complete operational summary.

AeroAPI (FlightAware) MCP: Identifying Airport Metadata for Research

Before, if your research needed to classify an airport by its specific time zone or unique ICAO code, you had to hunt through aviation databases and make sure the codes matched up across different systems.

Now, running `get_airport_details` gives that crucial metadata right away. You get accurate location data instantly, allowing your agent to build structured reports for deep-dive analysis without any manual verification.

AeroAPI (FlightAware): 5 Tools for Flight Status Auditing

Use these tools to check service health, retrieve detailed metadata for airports and flights, list scheduled routes, and search across various flight parameters.

#	TOOL	DESCRIPTION
01	`check_api_status`	Checks the system's operational status to ensure the API connection is live.
02	`get_airport_details`	Retrieves metadata and location details for a specific airport using its code.
03	`get_flight_details`	Gathers comprehensive details about one specific flight, including status and route data.
04	`list_airport_flights`	Lists all scheduled flights—arrived, departing, or enroute—for a given airport.
05	`search_flights`	Searches for multiple potential flights using criteria like origin, destination, or identifier.

See It in Action

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

U What are the expected arrivals and departures at LAX today?

LAX Daily Schedule Audit

- **Incoming (Arrivals):**
* BA214 (From New York): Expected 3:00 PM. Gate status pending.
* UA769 (From Denver): Estimated arrival 5:15 PM. Status: In Air.
- **Outgoing (Departures):**
* DAL123 (To Chicago): Scheduled departure 10:00 AM. Status: On Time.
* AA456 (To Dallas): Scheduled departure 1:30 PM. Status: On Schedule.

Need more details on any of these? Just ask.

U I need to know the full status for flight AA987 and its origin airport's time zone.

Flight Details & Location Data

- 🛬 **Flight Status (AA987):**
* Origin: Dallas/Fort Worth (DFW)
* Destination: Chicago O'Hare (ORD)
* Current Status: En Route. ETA: 11:45 AM.
- 📍 **Airport Metadata (DFW):**
* Location: DFW, Texas, USA
* Time Zone: America/Chicago
Coordinates: 32.89 - 97.04

Everything you need to know about that trip.

U Search for flights leaving from Miami, but I'm flexible on the destination.

Miami Departures Search

I found three potential routes departing Miami today:

1. **Flight: SW301** (Origin: MIA)
* Destination: Orlando (MCO)
* Time Estimate: 8:00 AM - Status: Scheduled
2. **Flight: AA567** (Origin: MIA)
* Destination: Boston (BOS)
* Time Estimate: 11:30 AM - Status: En Route
3. **Flight: DL999** (Origin: MIA)
* Destination: Washington D.C. (IAD)
* Time Estimate: 2:45 PM - Status: Scheduled

Let me know if you want status details for any of these.

Frequently Asked Questions

01 **How can I use AeroAPI (FlightAware) to track a specific flight's real-time location?**

You simply ask your agent, and it pulls the full details using the correct identifier. The result includes status, origin, destination, and even if it's currently en route with estimated times. It gives you more than just a simple 'flying' message.

02 **Does AeroAPI (FlightAware) help me compare multiple airport schedules?**

Yes. You can tell your agent to audit arrivals and departures for several airports in one go. It compiles the data, giving you a clear overview of capacity and expected traffic at each location.

03 **I'm building a logistics tool; what kind of metadata does AeroAPI (FlightAware) provide?**

The MCP provides critical details like unique airport codes, precise time zones, and geographic markers. This data is vital for classifying locations correctly in your system, making sure timestamps are never wrong.

04 **Is AeroAPI (FlightAware) better than just using the airline's website?**

It's much faster and more comprehensive. Instead of opening multiple sites, you ask your agent once, and it consolidates the status, schedules, metadata, and potential routes into one readable report.

05 **Can AeroAPI (FlightAware) find flights even if I don’t know the exact flight ID?**

Absolutely. You don't need a specific identifier; you can search using general criteria like an origin city or destination area, and it will give you a list of potential routes to narrow down your focus.

06 **What kind of industries use AeroAPI (FlightAware) for their daily operations?**

Logistics companies, travel agencies, and academic researchers rely on this MCP. It's perfect for anyone whose job depends on accurate, up-to-the-minute knowledge of global movement.

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 `"aeroapi-flightaware": { "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

AeroAPI (FlightAware) 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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