MCP SERVER | NO CODE | CLOUD HOSTED

FlightAware MCP

Know the status of any flight, anywhere in the world.

FlightAware MCP connects your AI agent directly to global aviation data. It lets you track real-time flight movements, check airport arrivals and departures, analyze historical flight paths dating back to 2011, and pull up detailed aircraft specifications—all through natural conversation.

A+ Quality Score 100/100

flight-tracking | aviation-intelligence | airport-operations | real-time-data | historical-flight-data | ads-b

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vinkius.com/mcp/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.

FlightAware MCP

12 tools available
Cloud-hosted on Vinkius

Stop jumping between dedicated tracking websites and parsing complex data feeds just to figure out if a connection is going to make. This MCP gives your AI client full access to the world's flight status grid, turning complicated aviation queries into simple conversations. You ask what's happening at JFK, and it tells you everything: real-time weather, gate changes, whether the plane is delayed, or even how far out its scheduled arrival is. It doesn't just give you a list of flights; it acts like an operations coordinator. If you need to plan around disruptions, check competitor fleet movements, or analyze if a specific route has been reliable historically, this MCP handles it all. By connecting through Vinkius, your agent gets immediate access to hundreds of other specialized tools, making it the single hub for almost any kind of data lookup.

Core Capabilities

01 — Search and track active flights

You can find real-time tracking information for a flight using its number, tail number, or origin and destination pair.

02 — Monitor airport activity

The MCP provides live lists of both inbound arrivals and outbound departures at any major airport.

03 — Determine operational status

You can pull detailed information on a specific flight, including its gate assignment, expected times, and current delay reasons.

04 — Assess weather impacts

It retrieves current METAR reports and future TAF forecasts for any airport to gauge potential operational delays.

05 — Analyze flight history

The MCP accesses continuous historical data, showing the full path and performance metrics of flights over years.

One Click on Vinkius — From Prompt to Execution

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

01 Subscribe to this MCP on Vinkius and enter your FlightAware AeroAPI key from the Developer Portal.

02 Connect your preferred AI client, like Cursor or Claude, to the Vinkius catalog using that API key.

03 Ask your agent a natural language question, such as 'What's the weather at KORD?' or 'Where is flight UA123 right now.' The MCP processes the query and returns structured aviation data.

The bottom line is you talk to your AI client like talking to an operations manager; it handles all the complex API calls behind the scenes.

Built For

This MCP is for anyone who relies on timely, accurate movement data—from coordinating passenger pickups to managing large-scale logistics. If you're tired of checking five different websites just to get a full picture of airport operations or flight reliability, this tool saves your afternoon.

Travel Coordinator

You use the MCP to check real-time arrivals and departures for specific airports, letting you update clients on gate changes or delay status instantly.

Flight Dispatcher

You verify filed routes and check destination airport weather reports before approving a flight plan, ensuring operational safety data is available immediately.

Aviation Analyst

You run historical analyses on specific routes or entire airline fleets to measure performance reliability and spot seasonal trends.

What Changes When You Connect

01 Get immediate operational details for a known flight. Instead of checking multiple sites for gate assignments or delay reasons, you ask your agent and get complete data using `get_flight_status`.

02 Analyze long-term performance trends. Use `get_historical_flights` to pull track points and timing data from years past. This helps prove if a route is consistently reliable or prone to seasonal issues.

03 Plan around weather impacts instantly. Check the current forecast using `get_airport_weather` before sending out any flight plan, knowing exactly what kind of wind shear or visibility restrictions you're dealing with.

04 Understand aircraft deep down. Need to know who owns a specific tail number? Use `get_aircraft_info` to get manufacturer specs and registration data without leaving your workflow.

05 Visualize the journey automatically. If someone asks 'Where is it?', you don't send a link; you use `get_flight_map` to generate an embedded static image of the current flight path.

Real-World Applications

Coordinating ground transport for delayed passengers

A client asks, 'What's happening with my connection at JFK?' Your agent runs `get_airport_arrivals` to confirm the delay and then uses `search_flights` to find alternative connections. It replies instantly with a timeline, saving you from manual lookups.

Investigating competitor fleet movement

An operations manager needs to know if a rival airline is running more flights today. They ask the MCP to list all operational flights for that carrier using `get_operator_flights`, giving them an immediate competitive overview.

Preparing a flight briefing package

Before a meeting, you need background on a route's typical performance. You ask the MCP to retrieve common routes between two points using `get_airport_routes` and check historical reliability via `get_historical_flights`, all in one query.

Troubleshooting flight path anomalies

A pilot notices a discrepancy. They ask the MCP to compare the filed plan with reality using `get_flight_route` and check the current position via `search_flights`. The AI agent flags where the actual track deviates from the planned route.

Patterns to Avoid

Treating it like a simple search engine

✗ AVOID

Asking 'show me flights' without specifying dates, locations, or operators. The agent returns too much generic data, forcing you to manually filter for the few useful results.

✓ INSTEAD

Be specific and use multiple tools in one prompt. Instead of just searching generally, ask: 'Show me arrivals at KJFK today that are delayed AND check their weather status using `get_airport_weather`.' This forces a targeted response.

Confusing real-time data with static info

✗ AVOID

Assuming the MCP knows the gate number for an arriving flight just because you gave it the airport name. It only provides generic airport metadata, not live assignments.

✓ INSTEAD

Always use `get_airport_arrivals` when asking about specific inbound flights, as this tool includes real-time terminal and gate information.

Overlooking aircraft context

✗ AVOID

Only knowing the tail number but not what type of plane it is. You don't know if the plane is a cargo jet or a small private business flyer.

✓ INSTEAD

Always run `get_aircraft_info` first when you get a registration number. This gives crucial context about its capacity, engine type, and operating category.

The Right Fit

Use this MCP if your job involves tracking things that move in three dimensions—time, space, and altitude. If you need to know *where* an aircraft is right now, or *what* the weather means for its scheduled arrival, this is what you want. You'll use tools like `search_flights` and `get_airport_weather` constantly.

Don't use this if you just need general knowledge about airports (use `get_airport_info`) or basic text generation. If your task involves processing unstructured documents, coding complex statistical models that don't require external data feeds, or managing internal databases unrelated to aviation, then this MCP won't help. It is strictly for flight and airport intelligence.

Tracking flights used to mean endless tabs and manual cross-referencing.

Before having an AI agent like this, tracking a complex itinerary meant opening the airline's website, then checking the local airport's departure board, finding a separate weather feed for wind reports, and finally looking up the aircraft type on another site. It was constant copy-pasting and manually comparing schedules to actual times.

With this MCP, you talk to your agent like you're talking to an operations desk. You ask one question—like 'What are the chances of a delay at LAX tomorrow?'—and it pulls together arrivals, weather reports (`get_airport_weather`), and historical data into one cohesive answer. It just works.

Get complete flight intelligence with FlightAware MCP.

Manual processes used to require a specialist in aviation, multiple subscriptions, and hours of research time. You were limited by the API documentation you could read or the websites you could navigate.

Now, your AI agent acts as that expert analyst for you. It combines real-time data (`get_flight_status`) with historical records (`get_historical_flights`), giving you intelligence in seconds—not hours.

FlightAware: 12 Aviation Tools at Your Fingertips

Use these tools to get every piece of flight intelligence you need, from real-time tracking status and weather forecasts to historical performance analysis.

#	TOOL	DESCRIPTION
01	`get_aircraft_info`	Retrieves detailed specifications, ownership data, and type information for a given aircraft tail number or registration.
02	`get_airport_arrivals`	Lists all inbound flights arriving at a specified airport with their estimated times, assigned gates, and current status.
03	`get_airport_departures`	Lists all outbound flights leaving a specific airport, including scheduled departure times, destination airports, and gate information.
04	`search_flights`	Finds active or recent flight data using a flight number, tail number, or by specifying the route between two airports.
05	`get_airport_info`	Provides static details like coordinates, ICAO codes, and timezone information for any airport.
06	`get_airport_routes`	Identifies common flight paths, typical altitudes, and frequency of use between two specified airports.
07	`get_airport_weather`	Returns current METAR weather reports and future TAF forecasts for a specific airport location.
08	`get_flight_map`	Generates a static image map showing the filed route, actual track points, and current position of an airborne flight.
09	`get_flight_route`	Returns the structured list of waypoints, airways, and fixes that make up a specific flight's planned path.
10	`get_flight_status`	Gathers all detailed operational status information for a known flight, including gate assignments, pushback times, and delay reasons.
11	`get_historical_flights`	Accesses complete historical tracking data for any specific flight, including its entire track log and performance metrics from 2011 onward.
12	`get_operator_flights`	Lists all active flights currently operated by a specific airline or operator code.

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 (KEWR) to San Francisco (KSFO).

Searching FlightAware... I found 5 active United flights on the KEWR-KSFO route today: UA123 (Boeing 737-900, departed KEWR 08:15 EST, en-route at FL370, ETA KSFO 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 gate and terminal information for any of these flights?

U What is the current weather at Chicago O'Hare (KORD) and are flights being delayed due to conditions?

Checking KORD weather and flight status... Current METAR observation at Chicago O'Hare: Wind 270 degrees at 18 knots gusting to 28, visibility 6 statute miles in light snow, broken clouds at 2500 feet, overcast at 4000 feet, temperature minus 4 Celsius, dewpoint minus 8, altimeter 29.87 inches Hg. Reviewing arrivals and departures: I'm seeing average delays of 25-40 minutes for inbound flights due to low ceiling and gusty crosswind conditions on runways 10L/28R. Several flights have been diverted to alternate airports (MDW, RFD). Outbound flights are experiencing similar delays with ground stops imposed periodically. Would you like me to monitor specific flights for you?

U Show me the complete flight history and track points for British Airways flight BAW117 from London to New York yesterday.

Retrieving historical flight data for BAW117... Flight BAW117 (Boeing 777-300ER, registration G-STBF) departed London Heathrow (EGLL) at 2025-04-08 10:12 UTC (scheduled 10:05 UTC, 7 minutes early) from Terminal 5 Gate A12. The flight tracked westbound across the North Atlantic via the NATS track system, filing route: KONAN L607 RESNO 52N020W 52N030W 51N040W 50N050W 49N060W J547 CAM J753 MERIT. Cruising altitude FL380 with average ground speed 485 knots. Arrived New York JFK (KJFK) at 2025-04-08 13:28 UTC (scheduled 13:45 UTC, 17 minutes early) at Terminal 7 Gate 1. Total flight time: 7 hours 16 minutes. Complete track log contains 432 position points. Would you like me to generate a route map or analyze performance metrics for this crossing?

Frequently Asked Questions

01 **How do I use the FlightAware MCP to check if a flight is delayed?**

You should use `get_flight_status`. This tool returns detailed operational data, including any delay indicators and the specific reason for the schedule change.

02 **Does the FlightAware MCP provide live weather updates for airports?**

Yes. Use `get_airport_weather` to get current METAR observations and future TAF forecasts, which is critical for assessing operational impact.

03 **Can I track a flight's full history using the FlightAware MCP?**

Absolutely. The `get_historical_flights` tool lets you access continuous data dating back to 2011, giving you the complete track points and performance records.

04 **What is the difference between searching by tail number and using search_flights?**

Use `get_aircraft_info` if you only want specs on a specific tail number (like N12345). Use `search_flights` when you need to know where that aircraft currently is or what flights it's involved in.

05 **Can the FlightAware MCP tell me about common routes between cities?**

Yes, use `get_airport_routes`. It provides route strings and frequency of use for major flight paths connecting two specific airports.

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 `"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

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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