MCP SERVER | NO CODE | CLOUD HOSTED

# Weatherbit MCP

## Get Global Weather, Air Quality & Climate History.

Weatherbit provides global, real-time weather data directly to your AI client. Get current conditions, 16-day forecasts, hourly predictions, and historical climate metrics for any location worldwide. It also tracks air quality indexes (AQI) and active severe storm warnings.

A+ Quality Score 98.33/100

weather-forecast | meteorological-data | air-quality | real-time-weather | climate-data

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vinkius.com/mcp/weatherbit

SCAN TO VIEW

# 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.

**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.

# Weatherbit MCP

10 tools available
Cloud-hosted on Vinkius

Need reliable environmental data? This MCP connects you to global weather information so your agent can analyze it through natural conversation. You can check current conditions—temperature, wind, humidity—either by coordinates or a city name. Planning a trip? Use the daily forecast tool to see high/low temperatures and precipitation probability up to 16 days out. For deep dives, pull historical data spanning over 30 years. The system also tracks air quality metrics like PM2.5 and Ozone levels in addition to providing active severe weather alerts. All this global data is managed and cataloged on Vinkius, making it accessible instantly from any MCP-compatible client.

## Core Capabilities

**01 — Get current conditions**

Retrieve real-time details including temperature, wind speed/direction, humidity, and precipitation for a specific location.

**02 — Generate multi-day forecasts**

Fetch daily predictions showing high and low temperatures, weather type, and chance of rain over the next two weeks.

**03 — Analyze hourly trends**

Obtain detailed hour-by-hour data on temperature, wind, and cloud cover for immediate planning.

**04 — Check historical climate records**

Access past weather measurements, including temperature and rainfall, dating back decades for research purposes.

**05 — Monitor air pollution levels**

Read detailed readings on common pollutants like PM2.5, Ozone (O3), and Carbon Monoxide (CO) to assess local air health.

**06 — Track severe weather events**

Query active alerts or recent reports for dangerous conditions like tornadoes, floods, or high winds.

## One Click on Vinkius — From Prompt to Execution

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

01 Subscribe to this MCP and input your Weatherbit API Key.

02 Your agent calls the desired function, passing coordinates or a city name as required.

03 The data returns specific metrics, like current temperature or 16-day forecasts, directly into your chat window.

The bottom line is that you just talk to your AI client and it pulls complex environmental data from the cloud for you.

## Built For

Anyone who needs location-specific, time-sensitive environmental data. This hits operations managers running logistics, field engineers planning site visits, or climate researchers needing decades of comparable records.

**Logistics Planner**

Determines if a multi-day shipment route needs to be delayed due to predicted high winds or heavy rain in specific cities.

**Environmental Scientist**

Runs comparative analysis by pulling historical weather data and comparing it against modern air quality readings for academic papers.

**Outdoor Operations Manager**

Checks immediate severe weather alerts before dispatching crews to a remote site, ensuring safety protocols are met.

## What Changes When You Connect

01 Stop checking separate sites for pollution and weather. This MCP bundles air quality readings (PM2.5, Ozone) right alongside real-time conditions using the `get_air_quality` tool.

02 Need to plan beyond a few days? The daily forecast tools give you up to 16 full days of predictions, letting you see temperature ranges and rain chances for an entire trip.

03 Climate researchers can pull deep metrics. Use `get_historical_weather` to access accurate data spanning thirty years, making longitudinal studies simple.

04 You don't need coordinates every time. Both current weather tools let your agent get conditions just by knowing the city name, saving you a step.

05 Safety planning is easier. Instead of guessing, use `get_weather_alerts` to pull official warnings and watches for dangerous severe weather in an area.

## Real-World Applications

**Planning a remote construction site visit**

An ops manager asks their agent: 'What's the forecast for Site X next week, and is the air quality okay?' The agent uses `get_forecast_daily_by_city` to check temperatures and then runs `get_air_quality` to ensure workers can safely operate outdoors.

**Analyzing long-term agricultural trends**

A researcher needs to prove a correlation between drought severity and crop yield. They ask the agent to pull 30 years of data using `get_historical_weather` for that specific region, allowing them to build a solid dataset.

**Responding to an immediate storm threat**

A dispatcher asks: 'Is there any severe weather impacting Sector Beta right now?' The agent immediately runs `get_weather_alerts` and uses `get_severe_weather` to provide actionable, current safety information.

**Optimizing a local outdoor event**

A festival organizer needs hourly details. They ask the agent for `get_forecast_hourly_by_city` to track potential wind shifts and rain probability throughout the day, letting them make real-time decisions on setup.

# Patterns to Avoid

### Using multiple APIs manually

✗ AVOID

Opening Google for current weather, then checking a separate government site for pollution data, and finally consulting an academic database for historical metrics. This takes 20 minutes.

✓ INSTEAD

Connect this MCP to your agent. Your agent handles the sequencing; it uses `get_current_weather` for real-time data and `get_air_quality` in one request.

### Missing temporal context

✗ AVOID

Only checking today's temperature and ignoring how that compares to last month or next week. You miss critical planning details.

✓ INSTEAD

Always ask the agent for both current data *and* future predictions, combining `get_forecast_daily` with `get_current_weather` in a single conversation.

### Assuming uniform risk

✗ AVOID

Just knowing it's 'rainy' is not enough. You need to know if it's severe, like flash flooding or hail.

✓ INSTEAD

Don't stop at general forecasts. Always run `get_weather_alerts` and `get_severe_weather` first before planning based on basic temperature readings.

## The Right Fit

Use this MCP if your task requires location-specific environmental metrics that span multiple data types: current weather, pollution levels, or long-term climate history. If you only need simple, general text descriptions of the weather (e.g., 'Cloudy'), a basic web search might suffice. However, if you need specific numbers—like PM2.5 concentrations, 16-day temperature ranges, or historical wind speeds—you must use this MCP's specialized tools. Don't use this if your only goal is to calculate something that doesn't involve physical geography (e.g., calculating financial risk). For those cases, stick to a pure data warehouse connector instead.

## Getting reliable environmental status updates is a nightmare of tabs and APIs.

Right now, checking the full scope of local conditions means jumping through hoops. You check one site for today's temperature, then another to see if pollution levels are high enough to keep kids inside. If you need to plan more than a few days out, you start juggling separate forecast pages that don't talk to each other.

With this MCP, your agent pulls all of it in one conversation. It handles the cross-referencing—from today’s current conditions to pollution readings and even checking if there are any immediate severe warnings for your location.

## Weatherbit gives you comprehensive data across multiple time scales.

You no longer have to manually request separate reports. You can ask the agent to compare current air quality readings against what historical weather data showed for this exact date 10 years ago, all without leaving your client interface.

The difference is depth. It's not just a forecast; it's a complete environmental profile, making complex decision-making simple and immediate.

# Weatherbit MCP with 10 Tools

Use these tools to query everything from current temperature readings and hourly forecasts to historical climate data and localized air pollution metrics.

| # | TOOL | DESCRIPTION |
|---|---|---|
| 01 | `get_air_quality` | Retrieves the Air Quality Index (AQI) score and concentrations for key pollutants like PM2.5 or Ozone at given coordinates. |
| 02 | `get_current_weather` | Provides immediate weather details, including temperature, wind speed/direction, and visibility, using geographical coordinates. |
| 03 | `get_current_weather_by_city` | Returns current conditions like humidity and UV index when you only know the city name. |
| 04 | `get_forecast_daily` | Generates a daily forecast showing high/low temperatures, weather type, and precipitation probability by coordinates. |
| 05 | `get_forecast_daily_by_city` | Gets a 16-day outlook covering temperature ranges and general conditions using just the city name. |
| 06 | `get_forecast_hourly` | Delivers hour-by-hour data on temperature, wind, and cloud cover for detailed short-term planning by coordinates. |
| 07 | `get_forecast_hourly_by_city` | Provides an hourly prediction of conditions, including precipitation and wind, using a city name lookup. |
| 08 | `get_historical_weather` | Pulls historical weather data for specific metrics spanning the last 30 years by coordinates. |
| 09 | `get_severe_weather` | Queries reports detailing recent severe weather activity, such as documented hailstorms or flooding events in a region. |
| 10 | `get_weather_alerts` | Retrieves active official warnings and watches regarding dangerous weather conditions affecting specific coordinates. |

# See It in Action

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

**U** What's the weather in London today?

London: 15°C (feels 13°C), light rain, 78% humidity, wind 12 km/h NE. Cloud cover 85%. UV index 2 (low). Sunrise 06:42, Sunset 18:15.

**U** Give me the 5-day forecast for Tokyo.

Tokyo 5-day forecast: Mon 22°C/14°C ☀️, Tue 20°C/13°C ⛅, Wed 18°C/12°C 🌧️, Thu 21°C/14°C ⛅, Fri 23°C/15°C ☀️.

**U** What's the air quality in São Paulo?

São Paulo AQI: 65 (Moderate). PM2.5: 19 µg/m³, PM10: 38 µg/m³, O3: 42 ppb. Sensitive groups should limit outdoor activity.

# Frequently Asked Questions

01 **Can Weatherbit MCP give me air quality data for my location?**

Yes. Use the `get_air_quality` tool to pull specific pollutant metrics like PM2.5, Ozone (O3), and CO concentrations based on coordinates.

02 **How far into the future can I use get_forecast_daily_by_city?**

The `get_forecast_daily_by_city` tool provides daily forecasts for up to 16 days, giving you a full two-week outlook.

03 **What kind of historical data does get_historical_weather provide?**

This function accesses decades of weather records. You can retrieve metrics like temperature, wind speed, and precipitation for dates spanning the last 30 years by coordinates.

04 **Does Weatherbit MCP warn me about storms?**

Yes. Use `get_weather_alerts` to get active official warnings for severe conditions, or use `get_severe_weather` to query reports on recent events like floods or tornadoes.

05 **Can I check the weather using just a city name?**

Absolutely. You can use both `get_current_weather_by_city` and `get_forecast_daily_by_city` to get conditions without needing precise coordinates.

# 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 `"weatherbit": { "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

# Weatherbit 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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