

MCP SERVER

NO CODE

CLOUD HOSTED

# Weather (Open-Meteo) MCP

Know Local Conditions, Instantly.

Weather (Open-Meteo) provides high-precision, real-time weather data and forecasts for any city worldwide. Get current conditions like temperature, wind speed, and humidity. Plan trips using 7-day multi-day forecasts or check hourly breakdowns for the next 24 hours. It also delivers air quality index (AQI), severe weather alerts, and helps you find the optimal time for outdoor activities.

**A+** Quality Score 100/100

meteorological-data

weather-forecast

air-quality

real-time-data

environmental-monitoring



# 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 — 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](https://cloud.vinkius.com) — connect your AI agent in under 60 seconds.

# Weather (Open-Meteo) MCP

7 tools available

Cloud-hosted on Vinkius

This MCP gives your agent instant access to global meteorological data, letting you stop manually checking dozens of weather websites. You can ask for real-time conditions—like current temperature or wind speed in São Paulo—or request a multi-day forecast spanning up to two weeks when planning travel. Need to compare destinations? Just name the cities; the MCP compares everything side by side, giving you a comfort score for each one.

It's perfect for logistics teams checking wind conditions across delivery routes or outdoor enthusiasts trying to find the best window for running in the next 72 hours. Plus, it monitors air quality using AQI levels and even flags severe weather alerts when they pop up. By connecting this MCP through Vinkius, you get a personal meteorologist built right into your workflow, keeping complex environmental data available through simple chat commands.

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## Core Capabilities

### 01 — Check current conditions

Retrieve real-time readings like temperature, wind speed, and humidity for any city.

### 03 — Analyze hourly breakdowns

View detailed, hour-by-hour weather data covering the next 24 hours.

### 05 — Compare multiple locations

Run side-by-side comparisons of current conditions across several different cities.

### 02 — Predict multi-day forecasts

Get weather predictions spanning 1 to 14 days for planning activities or trips.

### 04 — Monitor air quality and alerts

Get current Air Quality Index (AQI) scores, pollutant levels, and active severe weather warnings for a location.

### 06 — Determine optimal outdoor times

Analyze the next 72 hours to find the best time window for specific activities like hiking or cycling.

# One Click on Vinkius — From Prompt to Execution

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

- 01** Connect this MCP to your preferred AI client via Vinkius. No API key is needed for non-commercial use.
- 02** Ask your agent a natural language question, like 'What's the weather going to be in Miami next week?'
- 03** The MCP executes the necessary tool calls and returns structured data—whether it's a current temperature or a 7-day forecast.

The bottom line is you get actionable, global environmental data without leaving your chat interface.

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## Built For

Anyone who relies on external conditions for planning—from travel agents booking multi-city trips to outdoor guides needing real-time air quality checks. This MCP solves the problem of constantly cross-referencing multiple weather sites.

### Travel Planner

Uses the MCP to compare destinations, checking if a trip from New York to London is better this weekend based on current weather and multi-day forecasts.

### Outdoor Guide / Enthusiast

Runs checks using the best time analysis tool to find the ideal 3-hour window for hiking or running, factoring in precipitation thresholds.

### Logistics Manager

Checks wind speed and hourly breakdowns across multiple delivery routes to predict delays or safety concerns.

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## What Changes When You Connect

- 01** Don't rely on checking multiple tabs. Use `weather.current` to get real-time data points like wind speed and humidity for instant decision-making.

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- 02 Need a long-term plan? Run the `weather.forecast` tool to see multi-day predictions (up to 14 days) instead of just tomorrow's guess.

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  - 03 Forget basic forecasts. Use `weather.hourly` to get precise, hour-by-hour breakdowns for critical planning like construction or events.

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  - 04 When coordinating travel, use `weather.compare` to instantly weigh conditions across several cities and find the best place to go.

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  - 05 Safety first: Check `weather.air_quality` to monitor AQI and pollutant levels before sending a team out on site.

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  - 06 Maximize outdoor time by using `weather.best_time`, which analyzes 72 hours of data to pinpoint ideal activity windows for hiking or cycling.
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## Real-World Applications

### Planning an international work trip

A travel agent needs to compare Miami and New Orleans. Instead of opening three browser tabs, they ask their agent to run `weather.compare`. The MCP returns a side-by-side comparison with comfort scores, letting them book the best option immediately.

### Assessing site safety

A construction foreman needs to know if the current conditions are safe for workers. They use `weather.air_quality`, which reports real-time AQI scores and specific pollutant levels like PM2.5, informing them whether masks or delays are necessary.

### Managing an outdoor event

The park director needs to know when it's safest for attendees to be outside. They use `weather.best_time`, which analyzes 72 hours and recommends a specific three-hour window based on ideal temperatures and low precipitation.

### Optimizing deliveries

A logistics team needs to route trucks through several cities next week. They use `weather.forecast` combined with hourly data checks to preemptively identify days with high wind speeds that could delay their entire schedule.

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# Patterns to Avoid

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## Asking for a comparison using only current conditions

### X AVOID

The user asks, 'Which city is better?' and the agent only uses `weather.current`. This gives a limited snapshot that ignores upcoming changes.

### ✓ INSTEAD

To get a full picture, you must use `weather.compare`, which analyzes multiple cities' current data \*and\* provides comprehensive comfort scores for immediate comparison.

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## Using the general forecast for immediate needs

### X AVOID

The user asks what to wear today, and the agent defaults to `weather.forecast` (7 days). This is too far out and doesn't give actionable details.

### ✓ INSTEAD

For highly specific, short-term planning, always use `weather.hourly`. It gives a detailed breakdown of conditions hour by hour for the next 24 hours.

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## Ignoring pollution data

### X AVOID

A user plans an outdoor run but doesn't check air quality, assuming clear skies mean good air.

### ✓ INSTEAD

Always check `weather.air_quality` first. This tool provides the AQI score and pollutant breakdown, ensuring that even if the sky looks clear, you know if the air is safe for exercise.

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## The Right Fit

Use this MCP when your planning depends on environmental metrics beyond just 'sunny' or 'rainy.' If you only need a simple general forecast and don't care about wind speed, AQI, or specific activity windows, another basic weather tool might work. However, if you are coordinating logistics (which requires checking wind/precipitation hourly), assessing health risks (requires pollutant data from `weather.air_quality`), or comparing multiple destinations for travel planning (requires `weather.compare`), this MCP is essential because it provides the depth of detail needed to make accurate calls.

Don't use this if you only need historical averages; it focuses on real-time and predicted data. But when predicting outcomes—like determining the optimal time window using `weather.best_time`—this MCP is unmatched.

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## The headache of manual travel preparation

Before this MCP, planning a multi-stop trip meant opening five different browser tabs: one for the current temperature in City A, another for the 7-day forecast in City B, and yet a third to check the air quality index. You'd spend twenty minutes manually cross-referencing conflicting data points just to figure out if you needed an umbrella or a light jacket.

Now, your agent handles it all. You ask one question—like 'Should I go to Lisbon or Madrid this weekend?'—and the MCP runs `weather.compare` in the background. It instantly gives you a side-by-side comparison and calculates a comfort score for both locations, letting you book with confidence.

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## Get instant access to detailed forecasts with `weather.forecast`

You used to have to wait until the next day's forecast was released just to get a basic idea of what week two looked like. You couldn't plan

With `weather.forecast`, you pull multi-day predictions (up to 14 days) directly into your conversation. That's reliable planning data delivered immediately.

anything further out than 7 days without manually refreshing multiple sites.

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# Weather (Open-Meteo) with 7 Tools

These seven tools let you retrieve everything from current temperatures and pollutant levels to multi-day predictions and activity recommendations.

#	TOOL	DESCRIPTION
01	<code>weather.current</code>	Retrieves the real-time temperature, humidity, wind speed, and precipitation for any specified city worldwide.
02	<code>weather.forecast</code>	Provides a multi-day weather prediction spanning 1 to 14 days for any city globally.
03	<code>weather.hourly</code>	Generates an hour-by-hour forecast covering the immediate next 24 hours for a specific location.
04	<code>weather.alerts</code>	Checks and returns active severe weather advisories, including warnings for storms or high UV levels, for any city.
05	<code>weather.air_quality</code>	Retrieves the current Air Quality Index (AQI) score along with pollutant data like PM2.5 and ozone levels for a location.
06	<code>weather.compare</code>	Compares the current weather conditions across 2 to 5 cities, scoring each one's comfort level side by side.
07	<code>weather.best_time</code>	Analyzes the next 72 hours to find and score optimal time windows for specific outdoor activities in any city.

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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** What's the weather like in Tokyo right now?



In Tokyo, Japan, it's currently 18°C with partly cloudy skies (☁️). The humidity is 65% and there is a light breeze from the South at 12 km/h. It feels like 17°C.

**U** Give me the 7-day forecast for London.



Here is the 7-day forecast for London: Tomorrow will be rainy with a high of 14°C. Wednesday looks clear and sunny (☀️) at 16°C. The rest of the week will be mostly cloudy with temperatures between 12°C and 15°C. Would you like the hourly details for any specific day?

**U** Compare the weather between New York and Miami.



Comparing conditions: New York is currently 8°C and overcast (☁️), while Miami is much warmer at 26°C with clear skies (☀️). New York is experiencing light rain, whereas Miami is dry. It's significantly warmer in Miami right now.

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## Frequently Asked Questions

**01** Can I use the Weather (Open-Meteo) MCP for general travel planning?

Yes, absolutely. Use `weather.compare` to check current conditions across multiple destinations and find the best place to go based on real-time data.

**02** What's the difference between `weather.forecast` and `weather.hourly`?

`weather.forecast` gives you a multi-day overview (1-14 days). Use `weather.hourly` when you need minute-by-minute detail for the next 24 hours.

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**03 Does Weather (Open-Meteo) MCP include pollution data?**

Yes, it does. The `weather.air_quality` tool delivers current AQI scores and detailed pollutant readings like PM2.5 and ozone.

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**04 How do I find the best time to run outdoors using this MCP?**

Use `weather.best_time`. It analyzes 72 hours of activity data, scoring specific windows for running, hiking, or cycling based on ideal conditions.

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**05 Does Weather (Open-Meteo) support global locations?**

Yes, it supports any city name worldwide. You can provide natural language names like 'São Paulo' or 'Paris, France' to get accurate readings.







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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
 <b>Claude AI</b>	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 <b>Cursor</b>	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 <b>VS Code</b>	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"weather-open-meteo": {   "url": "..." }</code>
 <b>Windsurf</b>	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 <b>ChatGPT</b>	Settings → Tools & plugins → Add MCP server → Paste endpoint
 <b>Gemini</b>	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

# Weather (Open-Meteo) 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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