

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Hiking Distance Total MCP

Manage and calculate cumulative trail segment distances.

Hiking Distance Total MCP handles the math and validation for your trail data. It lets your AI client sum up multiple hiking segments, check specific trail details, compare different routes, and ensure your segment lists are valid before you head out.

A+ Quality Score 100/100

hiking

distance

trails

outdoors

navigation



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.

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

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.

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 — connect your AI agent in under 60 seconds.

Hiking Distance Total MCP

4 tools available

Cloud-hosted on Vinkius

You can stop manually adding up trail lengths in a spreadsheet. This MCP gives your AI agent the ability to handle hiking data directly. If you have a list of segment IDs, your agent can instantly calculate the total distance covered. You can also pull specific details like names and lengths for individual segments or compare two different trails to see which one is longer. It even includes a validation step to make sure your segment IDs are correct and have positive lengths, preventing errors in your trip planning. It's a straightforward way to turn raw trail data into actionable hiking plans through your preferred AI client.

Core Capabilities

01 — Distance Summation

Your agent calculates the total mileage for a series of trail segments.

03 — Data Validation

Your agent verifies that segment IDs are valid and distances are positive.

02 — Segment Comparison

Your agent identifies which of two trails is longer or shorter.

04 — Trail Detail Retrieval

Your agent pulls specific names and lengths for individual trail parts.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/hiking-distance-total — connect your AI agent in three steps.

- 01 Connect your AI client to the Vinkius hosted MCP.
- 02 Provide your agent with a list of segment IDs or specific segment names.
- 03 The agent invokes the necessary tool to process the data.
- 04 The agent returns the calculated distance, comparison, or validation result.

Connecting this MCP to your AI client gives it immediate access to hiking math and validation tools.

Built For

This MCP is built for anyone managing trail data or planning outdoor excursions through an AI interface.

Trail Planners

They hand off segment lists to the AI to calculate total route lengths.

Outdoor Enthusiasts

They use the AI to compare different hiking options quickly.

Data Analysts

They use the validation tool to clean up hiking segment datasets.

What Changes When You Connect

- 01 Eliminates manual math for cumulative trail distances.
- 02 Prevents planning errors with automated segment validation.
- 03 Provides instant comparisons between different hiking routes.

Real-World Applications

Multi-segment Trip Planning

Your agent sums up several individual segments to find the total distance of a long hike.

Route Comparison

You ask the agent to compare two segments to decide which route fits your stamina.

Data Integrity Checks

The agent validates a list of segments to ensure all IDs exist and lengths are valid.

Quick Trail Lookups

You get the exact length and name of a specific segment on demand.

Patterns to Avoid

Manual Math Errors

❌ AVOID

You try to manually add up a long list of segment lengths in a chat window and end up with the wrong total mileage.

✓ INSTEAD

Let your agent handle the math by using `get_total_distance` to sum the segment IDs directly.

Invalid Segment Data

❌ AVOID

You provide a list of segment IDs that contains typos or negative distance values, leading to broken trip plans.

✓ INSTEAD

Run your list through `validate_segment_list` first to ensure every ID is valid and every length is positive.

Guessing Route Lengths

❌ AVOID

You assume two different trails are roughly the same length without checking the actual data.

✓ INSTEAD

Use `compare_segments` to get the exact difference in length between two specific segments.

The Right Fit

Connect this MCP if you regularly manage trail datasets or plan multi-segment hikes through an AI client. Do not connect it if you only look at single, pre-calculated trail lengths. The decision

depends on whether you need to perform math or validation on raw segment lists.

Hiking Distance Total: 4 Specialized Tools

These tools handle the math and validation for hiking segment data. Your agent uses them to calculate totals, compare routes, and verify segment integrity.

#	TOOL	DESCRIPTION
01	get_segment_details	This tool retrieves the specific name and length of a single hiking segment.
02	compare_segments	Use this to find the difference in length between two different hiking segments.
03	get_total_distance	This tool sums the distances of all segment IDs provided in a list.
04	validate_segment_list	This tool checks that a list of segment IDs is valid and contains only positive lengths.

See It in Action

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

U What is the total distance for segments seg-123 and seg-456?



The total distance for those segments is 15.5 kilometers.

U How long is the segment known as seg-789?



The segment seg-789 is 5.2 kilometers long.

U Which is longer: seg-111 or seg-222?



seg-222 is longer by 2.4 kilometers.

Frequently Asked Questions

01 How do I use this MCP with my AI client?

You connect once via the Vinkius catalog to your compatible client like Claude or Cursor. Once connected, your agent can immediately use the hiking tools.

02 Can this MCP validate my trail data?

Yes, the `validate_segment_list` tool checks that your segment IDs are valid and that all lengths are positive.

03 Can I compare two different hikes?

Yes, you can use the `compare_segments` tool to find the difference in length between two segments.

04 Does this MCP require me to host anything?

No, Vinkius hosts and manages the MCP for you. You just connect and start using the tools.

05 What kind of hiking data can it handle?

It handles segment IDs, segment names, and segment lengths for distance calculations and comparisons.

06 How do I calculate the total distance of my hike?

You can use the ``get_total_distance`` tool by providing a list of segment IDs.

07 Can I check if my selected segments are valid?

Yes, use the ``validate_segment_list`` tool to verify that all segments exist and have positive lengths.

08 How can I compare two different trails?

Use the ``compare_segments`` tool to find the absolute difference in length between two specific segments.

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 <code>"hiking-distance-total": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → 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

Hiking Distance Total 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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