

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

Kayak Speed Calculator MCP

Get precise paddling metrics and trip estimates instantly.

Kayak Speed Calculator MCP gives your AI client the math needed to track paddling performance. It handles the heavy lifting for velocity, pace, and skill tiering. Instead of manual math, you just tell your agent your distance and time to get immediate, accurate data for your training or trip planning.

A+ Quality Score 100/100

kayaking

velocity

pacing

performance

outdoor



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.

Kayak Speed Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Stop doing manual math every time you finish a paddle. This MCP turns your AI client into a specialized kayaking coach and trip planner. You can feed your raw data into your agent to get instant feedback on how you're performing on the water.

Whether you're training for a race or just planning a weekend excursion, you can use these tools to turn distance and time into actionable insights. You can check your current velocity, figure out your minutes per kilometer, or see where you land in different skill tiers. It also makes planning much easier by letting you predict exactly how long a specific route will take based on your typical speed. It's a simple way to keep your training data organized and your trip logistics tight.

Core Capabilities

01 — Velocity Tracking

Your agent uses this to find your exact speed during a session.

02 — Pace Conversion

Your agent calculates minutes per kilometer for easier performance tracking.

03 — Skill Assessment

Your agent assigns a performance tier based on your calculated speed.

04 — Trip Forecasting

Your agent estimates total travel time for future routes.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/kayak-speed-calculator — connect your AI agent in three steps.

- 01 Connect the MCP to your client like Claude or Cursor via Vinkius.
- 02 Provide your paddling data, such as distance and time, to your agent.
- 03 The agent calls the specific tool needed for your question.
- 04 You receive the calculated speed, pace, or time instantly.

Connecting this MCP to your AI client gives your agent immediate access to paddling math tools.

Built For

This is for anyone who paddles regularly and wants to track their progress or plan routes accurately.

Competitive Paddlers

They hand off session times and distances to the AI to track skill tier improvements.

Outdoor Enthusiasts

They use the agent to estimate how much daylight they need for a specific trip.

Kayak Coaches

They use the tools to quickly analyze athlete performance data.

What Changes When You Connect

- 01 Eliminates manual math for paddling metrics.
- 02 Provides instant skill tier feedback.
- 03 Makes trip duration planning predictable.
- 04 Turns raw session data into clean performance stats.

Real-World Applications

Training Progress

Compare your velocity across different sessions to see if you are getting faster.

Trip Planning

Calculate how many hours you'll be on the water before you leave the dock.

Skill Benchmarking

Check your performance tier to see how you stack up against standard levels.

Pace Management

Use minutes per kilometer to maintain a steady rhythm during long hauls.

Patterns to Avoid

Guessing trip durations

❌ AVOID

You tell your agent you'll be back in an hour because the route looks short. You don't account for your actual speed.

✓ INSTEAD

Provide the distance and your typical speed to ``calculate_estimated_trip_time`` for a realistic arrival time.

Manual pace calculations

❗ AVOID

You try to divide your time by distance on a calculator while sitting in the cockpit.

✓ INSTEAD

Just give your agent the raw session data and use ``get_kayak_pace`` to get your minutes per kilometer instantly.

Vague performance tracking

❗ AVOID

You tell yourself you're getting faster without any real way to prove it.

✓ INSTEAD

Use ``evaluate_performance_tier`` to see exactly where your speed puts you in standard skill categories.

The Right Fit

Connect this MCP if you paddle regularly and want to stop doing mental math for trip planning or training. If you only paddle once a year and don't care about your speed or timing, you don't need this.

Kayak Speed Calculator Tools

These tools handle all the math for your paddling metrics. Your agent uses them to turn raw distance and time data into speed, pace, and skill ratings.

#	TOOL	DESCRIPTION
01	calculate_estimated_trip_time	This tool predicts how long a journey will take. You provide the distance and speed to get a total duration.
02	evaluate_performance_tier	This tool categorizes your skill level. It uses your speed to place you into specific performance tiers.
03	get_kayak_pace	This tool calculates your pace. It converts your speed into minutes per kilometer.
04	get_kayak_velocity	This tool determines your speed. It calculates your velocity based on the distance covered and time elapsed.

See It in Action

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

U How fast was I going if I paddled 10km in 2 hours?



Your speed was 5 km/h.

U What is my pace if I cover 5km in 30 minutes?



Your pace is 6 minutes per kilometer.

U If I want to travel 20km at 4 km/h, how long will it take?



It will take 5 hours to complete the trip.

Frequently Asked Questions

01 What can this MCP calculate?

It calculates kayak velocity, pace in minutes per kilometer, performance tiers, and estimated trip durations.

02 Which AI clients can I use with this?

You can use this with any MCP-compatible client, including Claude, Cursor, and Windsurf.

03 Do I need to host this myself?

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

04 How do I use it in my chat?

Just ask your agent questions like 'How long will it take to paddle 15km at 5km/h?' and it will use the tools to answer.

05 Can it tell me if I am a fast paddler?

Yes, the `evaluate_performance_tier` tool categorizes your speed into specific skill levels.

06 How do I calculate my kayak speed?

You can use the `get_kayak_velocity` tool by providing the total distance in kilometers and the total duration in hours.

07 Can I determine my skill level?

Yes, the `evaluate_performance_tier` tool categorizes your speed into tiers such as Recreational, Intermediate, Advanced, or Elite.

08 How can I estimate how long a trip will take?

Use the `calculate_estimated_trip_time` tool with your target distance and your current speed.

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>"kayak-speed-calculator": { "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

Kayak Speed Calculator 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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