

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

Jet Lag Adjustment Calculator MCP

Plan your travel recovery and sync your body clock.

Jet Lag Adjustment Calculator MCP helps you manage your circadian rhythm during long distance travel. Your AI client uses this tool to calculate how many days you need to stay at a destination, check if your daily time shifts are healthy, and track how close you are to being fully synchronized with a new time zone.

A+ Quality Score 100/100

jetlag

circadian

travel-planning

health-tech

time-zones



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.

Jet Lag Adjustment Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Traveling across multiple time zones messes with your internal clock. This MCP gives your AI agent the math it needs to help you plan a better recovery. Instead of guessing how long you'll feel groggy, you can get specific timelines based on your travel direction and how much you shift your schedule each day. You can use it to verify if your plan to adjust quickly is actually safe for your body, or to see exactly how much progress you've made toward being fully synced after a few days on the ground. It turns vague travel fatigue into a predictable schedule.

Core Capabilities

01 — Recovery Timelines

Your agent calculates the exact number of days required to reach full synchronization.

02 — Safety Checks

The AI verifies if your planned daily schedule shifts are within healthy physiological limits.

03 — Directional Context

The tool identifies East or West travel to adjust the math for circadian impact.

04 — Progress Tracking

Your agent monitors how much of the adjustment process is complete after a set number of days.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/jet-lag-adjustment-calculator — connect your AI agent in three steps.

- 01 Connect the MCP to Claude, Cursor, or Windsurf via Vinkius.
- 02 Provide your travel details like time zone offset and direction to your agent.
- 03 The agent uses the tools to run the math for your specific situation.
- 04 Receive a clear timeline or safety check result immediately.

Connect the MCP to your AI client and start asking about your travel recovery.

Built For

Frequent travelers and planners who need to manage biological recovery during long trips.

Frequent Flyers

They hand off travel schedules to their AI to get recovery timelines.

Travel Coordinators

They use the tool to plan how long staff should stay in a location to remain productive.

Digital Nomads

They use the math to plan their work schedules around new time zones.

What Changes When You Connect

- 01 Calculates specific days needed for full synchronization.
- 02 Prevents unhealthy schedule shifts through capacity validation.
- 03 Provides progress updates on circadian adjustment.

04 Accounts for travel direction in all calculations.

Real-World Applications

Business Trip Planning

Determine how many days of downtime you need before a major meeting after a long flight.

Itinerary Optimization

Use travel direction data to understand how much harder your body will work to adjust.

Health Monitoring

Check if your attempt to adjust your sleep schedule is within a safe daily limit.

Recovery Tracking

See exactly how much closer you are to being fully awake and alert each day.

Patterns to Avoid

Ignoring travel direction

❌ AVOID

You ask your agent to calculate a recovery timeline without specifying if you flew East or West.

✓ INSTEAD

Always use ``get_travel_direction_impact`` first to ensure the math accounts for the specific circadian impact of your flight path.

Aggressive schedule shifts

❌ AVOID

You tell your agent you plan to shift your sleep schedule by six hours in a single day to adjust faster.

✓ INSTEAD

Run ``validate_shift_capacity`` to check if that shift is actually safe for your body before you commit to a schedule.

Guessing your recovery status

❌ AVOID

You assume you are fully adjusted after two days because you feel slightly better.

✓ INSTEAD

Use ``calculate_sync_progress`` to get an actual percentage of how much of the adjustment process is finished.

The Right Fit

Connect this MCP if you manage frequent long-haul travel or coordinate staff itineraries across time zones. Do not connect it if you only take short, regional flights. The decision depends on whether your travel direction and time zone shifts are large enough to require mathematical modeling for recovery.

4 Tools for Managing Circadian Recovery and Syncing

These tools provide the mathematical foundation for calculating recovery timelines, verifying safety limits, and tracking your progress toward full synchronization.

#	TOOL	DESCRIPTION
01	calculate_sync_progress	This tool tracks your recovery status. It calculates the percentage of your total adjustment process that is finished based on how many days you have already spent adjusting.
02	get_adjustment_duration	This tool determines your recovery timeline. It calculates the total number of days you need to stay at a destination to fully sync with the local time zone.
03	get_travel_direction_impact	This tool identifies your travel direction. It determines if you are moving East or West to provide the necessary context for your adjustment math.
04	validate_shift_capacity	This tool checks your physiological safety. It verifies if your proposed daily time shift stays within a healthy range for your body.

See It in Action

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

U How many days will it take to adjust to a 9 hour time difference if I shift 2 hours per day?



It will take 5 days to fully adjust to the new time zone.

U Is a 4 hour daily shift limit safe?



A 4 hour daily shift limit is above the typical healthy range of 1 to 3 hours per day.

U I've been adjusting for 2 days with a 2 hour daily limit for a 6 hour offset. How much progress have I made?



You have completed 66.67% of your adjustment, with 2 hours remaining to sync.

Frequently Asked Questions

01 How does this MCP help with jet lag?

It provides tools to calculate how many days you need to recover and whether your daily schedule changes are healthy.

02 Can I use this with Claude or Cursor?

Yes, you can connect this MCP to any compatible client including Claude, Cursor, and Windsurf.

03 Does travel direction matter for the calculation?

Yes, the tool uses travel direction to provide the correct context for your adjustment math.

04 How do I know if my adjustment plan is safe?

You can use the `validate_shift_capacity` tool to check if your daily time shifts are within a healthy range.

05 Can I track my progress during a trip?

Yes, the `calculate_sync_progress` tool tells you how much of the adjustment process you have completed.

06 How do I know how many days I need to adjust?

You can use the `'get_adjustment_duration'` tool by providing the total timezone offset and your preferred daily shift limit.

07 Is there a safe limit for shifting my body clock?

Yes, you can use `'validate_shift_capacity'` to check if your proposed daily shift limit falls within a healthy physiological range.

08 Can I track my progress during the adjustment period?

Yes, the `'calculate_sync_progress'` tool allows you to see the percentage of adjustment completed based on days elapsed.

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>"jet-lag-adjustment-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

Jet Lag Adjustment 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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Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

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