

MCP SERVER

NO CODE

CLOUD HOSTED

# Nap Optimizer MCP for AI Agents

## Optimizing Rest Cycles and Alertness Between Sleep Sessions

Nap Optimizer gives you science-backed advice on when and how long to rest. Instead of guessing, your AI agent analyzes the time of day and your goals—whether it's boosting focus or deep recovery—to suggest the ideal nap duration (10, 20, or 90 minutes). This MCP helps you avoid sleep inertia and ensures a quick recharge won't disrupt tonight's full night's sleep.

**A+** Quality Score 100/100

sleep

optimization

productivity

health-tech

wellbeing



# 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.

# Nap Optimizer MCP

3 tools available

Cloud-hosted on Vinkius

Sleep is crucial, but taking a nap can feel like guesswork. Do you need a quick mental boost? Or are you aiming for deep physical recovery? The Nap Optimizer lets your AI agent cut through the confusion. It analyzes your current time and what you need most—focus or restoration—to suggest the perfect rest window, so you get maximum alertness without that groggy feeling known as sleep inertia.

It's not just about timing; it's about physiology. You can learn exactly how different nap lengths affect your brain and body. Plus, it checks if a scheduled nap will negatively impact your ability to fall asleep later tonight. Because this MCP is hosted on the Vinkius catalog, connecting it means you get instant access to best-in-class sleep science right within any of your favorite AI clients.

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## Core Capabilities

### 01 — Get an optimized rest recommendation

The agent figures out the perfect nap duration and timing based on when you need the boost.

### 02 — Check for sleep interference risk

It assesses if taking a nap will reduce your body's natural drive to sleep tonight.

### 03 — Learn about recovery science

The system provides detailed information on the physiological benefits of various nap lengths, like power naps or full cycles.

# One Click on Vinkius — From Prompt to Execution

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

- 01 Tell your AI agent when you're feeling tired and what goal you have (e.g., 'I need to code for 3 hours and I feel drained').
- 02 The MCP analyzes the time of day, compares it to scientific sleep cycles, and suggests a specific nap duration.
- 03 Your agent delivers an actionable recommendation—a precise window and a clear explanation of why that rest length is best for your goals.

The bottom line is you get reliable, science-backed advice on resting so you can maintain peak performance without sacrificing necessary nighttime sleep.

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## Built For

This MCP is built for anyone who relies on sustained focus and wants to maximize their physical recovery. Think high-performing software engineers, students facing all-nighters, or executives whose schedules demand peak mental clarity across demanding weeks.

### Software Engineer

Needs quick mental boosts during long coding sessions and must know how to rest without disrupting deep focus work.

### Graduate Student

Manages intense study schedules and needs reliable advice on short power naps that maximize memory consolidation for exams.

### Project Manager

Requires sustained energy across multiple meetings and demands precise timing advice to stay sharp without feeling groggy.

## What Changes When You Connect

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- 01** Stop guessing about rest. Use `recommend_nap` to get a precise, science-backed nap window tailored to your current fatigue level.

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  - 02** Avoid the worst part of napping: sleep inertia. The recommendations ensure you wake up alert, not groggy, keeping your focus sharp.

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  - 03** Protect your deep sleep. `verify_sleep_impact` checks if your planned rest will negatively affect your ability to fall asleep at night.

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  - 04** Understand the 'why' behind good sleep. `get_strategy_details` breaks down the physiological benefits of different nap types for physical and cognitive restoration.

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  - 05** Keep productivity high without burnout. This MCP helps you treat rest as a measurable part of your workday, not an afterthought.
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## Real-World Applications

### Mid-day slump before a major presentation

A Project Manager asks their agent, 'I'm drained right before my 2 PM client pitch. What should I do?' The agent uses `recommend_nap` and suggests a 20-minute power nap, explaining that this duration maximizes alertness without causing grogginess.

### Understanding deep recovery cycles for better health

A user asks their AI client about optimal rest. The agent uses `get_strategy_details` to explain Full Cycle naps, providing detailed knowledge on why that specific length promotes physical and cognitive restoration.

### Planning an afternoon rest while studying for finals

A student asks their agent about napping before bed. The agent uses `verify_sleep_impact` to caution them that the nap might reduce sleep pressure, advising a shorter duration or moving the nap earlier.

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## Patterns to Avoid

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### Napping without considering night sleep

#### X AVOID

Taking a long nap late in the afternoon because you're tired. This might make it impossible to fall asleep at your normal bedtime.

#### ✓ INSTEAD

Always run this through `verify_sleep_impact` first. Use your agent with `recommend_nap` and tell it both when you plan to nap AND what time you usually go to bed.

### Treating rest as a vague concept

#### X AVOID

Just taking a 'long nap' because you feel tired, without knowing if that duration is actually helpful.

#### ✓ INSTEAD

Get specific advice using `recommend_nap`. The MCP helps you choose between 10, 20, or 90 minutes based on your actual goal.

### Ignoring the science of rest

#### X AVOID

Thinking all naps are equal and just taking whatever feels right.

#### ✓ INSTEAD

Consult `get_strategy_details`. This tool gives you clear, scientific explanations about *\*why\** specific nap lengths work for different types of restoration.

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## The Right Fit

Use this MCP if you need to treat rest as a measurable performance metric. If your primary goal is optimizing alertness and protecting

your natural sleep cycle, this tool works perfectly. For instance, use `recommend_nap` when you are in the moment and need an immediate answer. Use `verify_sleep_impact` anytime you're scheduling naps far in advance of bedtime. Don't use it if you simply want general wellness advice; for that, a broad health resource is better. If you just need to know what sleep *is*, check out `get_strategy_details` first.

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## Nap Optimizer MCP: Managing Afternoon Slumps and Focus During the Workday

Most people deal with afternoon slumps by doing one of two things: powering through on caffeine, or taking a long nap that leaves them feeling worse than when they started. This results in wasted time, poor decision-making, and an overall dip in productivity.

With Nap Optimizer, your agent determines the exact optimal rest duration for you. Instead of guessing, you get a precise recommendation—a 20-minute burst or a deeper cycle—that gets you back to peak performance without sacrificing sleep quality.

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## Nap Optimizer MCP: Determining Safe Rest Timing Relative to Nighttime Sleep

The biggest pitfall in rest is accidentally interfering with your natural bedtime. Taking a nap that lasts too long or is scheduled too close to night time can reduce your sleep drive, leaving you wired but tired.

Nap Optimizer's `verify_sleep_impact` tool solves this risk. It checks the interaction between your planned rest and your normal bedtime, telling you exactly if you need to adjust the timing for a successful recharge.

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# Nap Optimizer: 3 Tools for Analyzing Rest Timing and Recovery Science

Use these tools to get specific nap recommendations, check potential conflicts with your nighttime sleep, or learn the science behind optimal rest cycles.

#	TOOL	DESCRIPTION
01	<code>recommend_nap</code>	Provides a specific recommendation for the best duration and time for a nap based on current needs.
02	<code>get_strategy_details</code>	Explains the science behind different nap lengths, like power naps versus full cycle rest.
03	<code>verify_sleep_impact</code>	Checks whether taking a nap at a specific time will interfere with your natural sleep pattern tonight.

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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** I feel totally wiped out at 3 PM but I have an important meeting in two hours. What should I nap for?



### Power Nap Protocol

Based on your timeline and goal (high alertness), we recommend a **20-minute Power Nap**.

- **Goal:** Maximize cognitive function.
- **Benefit:** This duration boosts mental clarity by increasing immediate wakefulness while keeping you out of deep sleep stages, avoiding the groggy feeling.
- **Action:** Set an alarm for 20 minutes from now.

**U** I'm planning a nap at 5 PM and I usually go to bed around 11 PM. Is that okay?



### ⚠️ Interference Warning: Medium Risk

Napping this close to your bedtime (6 hours) carries a medium risk of reducing your natural sleep pressure for the night.

- **Recommendation:** Try shortening the nap by at least 30 minutes, or focus on hydration and light stretching instead. This keeps enough 'sleep debt' built up for restorative nighttime sleep.

## U What are the benefits of a full cycle nap compared to just a quick boost?



### Deep Restorative Benefits: Full Cycle Nap

A full sleep cycle is essential for deep restoration. This type of rest allows your brain enough time to complete all necessary cycles, which supports:

- **Cognitive Restoration:** Processing complex memories.
- **Physical Healing:** Allowing the body to enter restorative deep wave sleep stages.

This is ideal when you have more time and need holistic physical recovery.

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## Frequently Asked Questions

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### 01 How does the recommendation engine work?

The engine evaluates your `primaryGoal` (alertness or recovery) against the current `hourOfDay`. It calculates the risk of sleep inertia and potential disruption to your planned bedtime to suggest a duration that maximizes benefits without causing grogginess.

### 02 Can I check if my nap will ruin my night's sleep?

Yes, by using the `verify\_sleep\_impact` tool. You provide your intended wake-up time and your usual bedtime, and the system will predict if there is a high, medium, or low risk of interference.

### 03 What are the different nap strategies available?

You can explore details for 'Power Nap', 'Cognitive Boost', and 'Full Cycle' strategies using `get\_strategy\_details`. Each strategy outlines the specific pros and cons regarding alertness and recovery.







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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>"nap-optimizer": { "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

# Nap Optimizer 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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