

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

Optimal Bedtime Calculator MCP

Align your sleep schedule with your biological rhythm.

Optimal Bedtime Calculator MCP connects your AI client to a specialized circadian timing engine. It uses your specific chronotype and sleep needs to build precise schedules. Instead of guessing when to sleep, your agent calculates exact bedtimes, wind-down windows, and light exposure plans to keep you in sync with your body.

A+ Quality Score 100/100

sleep

circadian

chronotype

health

scheduling



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.

Optimal Bedtime Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Stop fighting your internal clock. This MCP gives your AI agent the ability to act as a biological timing specialist. By feeding your chronotype and wake-up requirements into the engine, you get actionable data that respects your natural circadian rhythm. You can use it to map out a full daily routine or just find the best window to hit a specific number of sleep cycles. It handles the math of sleep inertia and light sensitivity so you don't have to. Whether you're a morning person or a night owl, your agent can now provide schedules that actually feel natural rather than forcing a one-size-fits-all approach.

Core Capabilities

01 — Chronotype Analysis

Your agent evaluates how your biological type affects your sleep needs.

02 — Sleep Cycle Math

The MCP calculates specific 90-minute windows to prevent grogginess.

03 — Light Management

Your agent provides specific times to use light to regulate your rhythm.

04 — Schedule Generation

The tool builds full daily plans based on your constraints.

One Click on Vinkius — From Prompt to Execution

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

- 01 Connect your AI client to the Vinkius-hosted MCP.
- 02 Provide your chronotype and desired wake-up time to your agent.
- 03 The agent calls the necessary tools to run the circadian engine.
- 04 Your agent delivers a specific schedule or alignment score.

Connect the MCP to your client and start asking for sleep data.

Built For

People looking to optimize their energy levels through biological alignment. You hand off your chronotype and wake-up times to your agent to get a custom plan.

Biohackers

They use the agent to fine-tune their daily routines for peak performance.

Shift Workers

They use the tool to manage irregular sleep windows and light exposure.

Productivity Enthusiasts

They use the MCP to ensure their sleep schedules don't conflict with their work goals.

What Changes When You Connect

- 01 Reduces sleep inertia by targeting specific sleep cycles.
- 02 Aligns daily activities with your natural biological clock.
- 03 Provides specific light exposure windows to regulate rhythm.
- 04 Removes the guesswork from calculating bedtimes.

Real-World Applications

Morning Routine Setup

Tell your agent your wake-up time to get a precise wind-down and bedtime schedule.

Jet Lag Mitigation

Use light exposure plans to help reset your rhythm after travel.

Minimizing Grogginess

Use sleep cycle optimization to find a bedtime that lets you wake up at the end of a cycle.

Chronotype Validation

Check if a new work schedule actually fits your biological type using the alignment score.

4 Tools Available

#	TOOL	DESCRIPTION
01	get_circadian_alignment_score	This tool checks how well a proposed bedtime matches your natural chronotype. It returns a score indicating biological compatibility.
02	get_light_exposure_plan	This tool generates a schedule for light exposure. It tells you exactly when to seek or avoid light to manage your rhythm.
03	get_optimal_schedule	This tool builds a complete sleep plan. It accounts for your biological needs and your logistical constraints to find the best window.
04	get_sleep_cycle_optimization	This tool calculates bedtimes based on 90-minute sleep cycles. It focuses on timing your wake-up to minimize sleep inertia.

See It in Action

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

U I need to wake up at 07:00 and I am a Bear chronotype. I need 8 hours of sleep. What is my schedule?



Your ideal bedtime is 22:30. You should start your wind-down period at 21:45. Your light exposure window is between 07:00 and 08:30.

U I am a Wolf and I want to wake up at 09:00. How many sleep cycles should I aim for to feel best?



To complete 5 sleep cycles and wake up at 09:00, your target bedtime is 00:15.

U Is a 23:00 bedtime good for a Lion chronotype?



No, a 23:00 bedtime has a low alignment score for a Lion chronotype, as Lions naturally prefer earlier sleep onset.

Frequently Asked Questions

01 How does this MCP help with sleep?

It uses a circadian timing engine to calculate bedtimes and light exposure based on your specific biological chronotype.

02 What is a chronotype?

A chronotype is your body's natural inclination regarding sleep and wake times, such as being a Lion, Bear, or Wolf.

03 Can I use this with Claude or Cursor?

Yes, you can connect this MCP to any MCP-compatible client like Claude, Cursor, or Windsurf.

04 How does it minimize sleep inertia?

It uses the sleep cycle optimization tool to find bedtimes that align with 90-minute sleep cycles.

05 Do I need to host this myself?

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

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>"optimal-bedtime-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

Optimal Bedtime 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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DOCUMENT INFORMATION

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Server ID	01a0b8dd-44c3-7290-ba00-d50fd8991b
Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

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