

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

Break Count Calculator MCP

Automate rest periods and work efficiency calculations.

Break Count Calculator handles the math for mandatory rest periods and shift scheduling. Your AI client uses this MCP to determine how many breaks a worker earns, when those breaks should happen, and how much time is spent working versus resting. It also checks if your proposed schedules follow logical rules and calculates efficiency metrics based on total shift duration.

A+ Quality Score 100/100

work-management

scheduling

efficiency

hr-tools

time-tracking



SCAN TO VIEW

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.

Break Count Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Managing shift schedules shouldn't involve manual math or guesswork. This MCP gives your AI agent the ability to handle complex rest period calculations instantly. You can hand off shift durations and break requirements to your agent, and it will tell you exactly how many breaks are owed and provide a chronological schedule for when they should occur.

If you are building schedules, you can use this to verify that your configurations are logically sound before they go live. It also provides a way to look at the big picture by calculating the ratio of actual work time to the total time spent on shift. This makes it easy to see how much time is lost to breaks and how that impacts overall productivity. Whether you are managing a single worker or a whole team, your agent can now act as a precise scheduling assistant that keeps everything within policy.

Core Capabilities

01 — Break Entitlement Calculation

Your agent calculates the exact number of rest periods earned during a shift.

02 — Chronological Scheduling

Your agent builds a timeline of when breaks must occur.

03 — Policy Validation

Your agent checks if a proposed break setup is logically valid.

04 — Efficiency Analysis

Your agent measures the ratio of work time to total shift duration.

One Click on Vinkius — From Prompt to Execution

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

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Provide your shift duration and break interval to your agent.
- 03 The agent calls the necessary tools to run the calculations.
- 04 Your agent delivers the break count, schedule, or efficiency metrics directly in the chat.

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

Built For

This MCP is built for anyone managing labor schedules or tracking time efficiency.

You can hand off raw shift data to your agent to get instant, accurate schedules.

Shift Managers

They hand off shift durations to the agent to generate compliant break schedules.

HR Professionals

They use the agent to validate that work configurations meet logical requirements.

Operations Analysts

They provide shift data to the agent to calculate work efficiency metrics.

What Changes When You Connect

- 01 Removes manual math from shift planning.
- 02 Ensures break schedules follow logical constraints.
- 03 Provides clear timelines for rest periods.
- 04 Quantifies time lost to breaks via efficiency ratios.

Real-World Applications

Automated Shift Planning

An agent takes a shift length and an interval to produce a full break schedule for a worker.

Compliance Checking

You ask your agent to verify if a specific break interval works for a given work duration.

Productivity Auditing

An agent calculates how much actual work time is happening versus total time on the clock.

Employee Communication

Your agent tells a worker exactly how many breaks they have earned for their upcoming shift.

Patterns to Avoid

Manual Math Guesswork

❌ AVOID

You try to calculate how many breaks a worker needs by doing the math yourself in a chat window. This leads to errors in the final schedule.

✓ INSTEAD

Let your agent do the heavy lifting. Use ``get_break_count`` to get the exact number of entitled breaks based on the shift length.

Invalid Schedule Logic

❌ AVOID

You propose a break every 30 minutes for an 8 hour shift and assume it works. You don't check if the math actually holds up.

✓ INSTEAD

Run your proposed setup through ``validate_break_parameters`` first. It will tell you if the configuration is logically sound before you publish it.

Ignoring Productivity Loss

❌ AVOID

You look at total shift time but ignore how much of that time is actually spent working. You miss the impact of frequent breaks.

✓ INSTEAD

Use ``get_work_efficiency_metrics`` to see the ratio of work time to total shift duration. This gives you a clear view of actual productivity.

The Right Fit

Connect this MCP if you manage labor schedules or track time efficiency for a team. Do not connect it if you are looking for a general-purpose calendar or a simple clock-in tool. The decision depends on whether you need to automate the specific math of rest period entitlements.



Break Count Calculator: 4 Specialized Tools

These tools handle the math for shift durations, break timing, and work efficiency metrics.

#	TOOL	DESCRIPTION
01	get_break_count	This tool determines the total number of breaks a worker is entitled to based on their specific shift length.
02	get_break_schedule	This tool generates a chronological list of exactly when each break should happen during a shift.
03	get_work_efficiency_metrics	This tool calculates the ratio of actual work time compared to the total duration of the shift.
04	validate_break_parameters	This tool checks if a specific work and break configuration is logically sound and follows set rules.

See It in Action

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

U How many breaks will I get in an 8-hour shift if I take a break every 60 minutes?



You are entitled to 7 breaks during an 8-hour shift with a 60-minute interval.

U Give me a schedule for a 4-hour work session with breaks every 45 minutes.



Your breaks should occur at 45, 90, 135, and 180 minutes.

U Is a 30-minute break interval valid for a 2-hour work session?



Yes, the configuration is valid.

Frequently Asked Questions

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

You connect your client, such as Claude or Cursor, to Vinkius once. After that, your agent can immediately call the tools in this MCP.

02 Can this MCP create a full break timeline?

Yes. The `get_break_schedule` tool generates a chronological list of when each break should occur.

03 Does it help with productivity tracking?

Yes. The `get_work_efficiency_metrics` tool calculates the ratio of actual work time to the total shift duration.

04 Can I check if my break settings are valid?

Yes. You can use the `validate_break_parameters` tool to see if a work and break configuration is logically sound.

05 Will it tell me how many breaks I am owed?

Yes. The `get_break_count` tool determines the total number of breaks a worker is entitled to based on their shift.

06 How do I calculate the total number of breaks?

You can use the `'get_break_count'` tool by providing the total work duration and the desired break interval in minutes.

07 Can I check if my break schedule follows company policy?

Yes, the `'validate_break_parameters'` tool checks if your work and break configuration is logically sound and compliant.

08 How is work efficiency calculated?

The `'get_work_efficiency_metrics'` tool calculates the ratio of actual work time to total duration, accounting for time lost to breaks.

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>"break-count-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

Break Count 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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