

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

Hotel Room Night Calculator MCP

Handle hotel occupancy and stay metrics through your AI client.

Hotel Room Night Calculator MCP gives your AI agent the ability to process hotel inventory data. It handles the math for room nights, compares usage between different stays, and aggregates totals for large groups. You can also check if specific stay dates fall within your required booking windows.

A+ Quality Score 100/100

hotel

room-nights

occupancy

revenue-management

analytics



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.

Hotel Room Night Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Managing hotel inventory requires constant math on occupancy and stay durations. This MCP moves those calculations from your manual spreadsheets directly into your AI client. Instead of manually counting nights for every reservation, you can ask your agent to handle the heavy lifting.

Whether you are looking at a single booking or trying to sum up totals for a massive group, this tool provides the exact numbers you need. You can use it to verify if a guest's requested dates fit within a specific block or compare how much room usage differs between two separate stays. It is built to take the friction out of revenue management and occupancy tracking by turning your AI into a specialized hospitality math engine.

Core Capabilities

01 — Stay Math

Your agent calculates exact room night totals for individual or group bookings.

02 — Usage Comparison

The AI compares room consumption levels between different reservation sets.

03 — Date Validation

Your client verifies if requested stay dates fit inside a target window.

04 — Group Aggregation

The tool sums up room nights across many different bookings at once.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/hotel-room-night-calculator — connect your AI agent in three steps.

- 01 Connect the MCP to Claude, Cursor, or Windsurf via Vinkius.
- 02 Provide stay dates and room counts to your AI client.
- 03 The AI invokes the specific tool needed for the calculation.
- 04 Your agent receives the result and presents the final number.

You connect the MCP to your preferred client and start asking questions about hotel stays.

Built For

This MCP is designed for hospitality professionals who need to move quickly between booking data and occupancy metrics.

Revenue Managers

They hand off occupancy math and usage comparisons to the AI.

Hotel Operations Staff

They use the tool to validate stay dates and calculate group totals.

Group Sales Coordinators

They rely on the tool to aggregate room nights for large event bookings.

What Changes When You Connect

- 01

Removes manual math errors from occupancy calculations.
- 02

Speeds up group booking totals via automated aggregation.
- 03

Provides instant date validation for reservation requests.
- 04

Enables direct comparison of room usage between stays.

Real-World Applications

Group Booking Totals

Sum up the total room nights for an entire wedding block or corporate event.

Occupancy Comparison

Compare how much room inventory a specific group is using versus another.

Booking Window Checks

Confirm if a guest's requested dates are valid for a specific seasonal block.

Single Reservation Math

Get the exact room night count for a single booking instantly.

Patterns to Avoid

Manual spreadsheet math

AVOID

You try to manually count nights for a 50-room wedding block using a calculator and a spreadsheet.

✓ INSTEAD

Let your agent handle the heavy lifting by using `aggregate_group_room_nights` to sum up the totals instantly.

Guessing stay date validity

AVOID

You assume a guest's requested dates fit within a seasonal block without checking the specific window.

✓ INSTEAD

Run the dates through `validate_stay_bounds` to confirm they fall within your target range.

Comparing usage by eye

❌ AVOID

You look at two different reservation sets and try to eyeball which one used more room inventory.

✓ INSTEAD

Use `compare_room_usage` to get an exact evaluation of the difference in consumption between the two stays.

The Right Fit

Connect this MCP if you manage hotel inventory or group sales and want to stop doing manual math. If you only handle single, one-off walk-in bookings without any need for occupancy tracking, you won't find much use for it. The decision comes down to whether you need to aggregate room nights across multiple bookings.

Hotel Room Night Calculator: 4 Specialized Tools

These tools handle the math for occupancy, stay durations, and group booking totals.

#	TOOL	DESCRIPTION
01	aggregate_group_room_nights	This tool sums up the total room nights for a collection of multiple bookings.
02	calculate_stay_room_nights	Use this to find the total number of room nights for a single reservation based on occupancy.
03	compare_room_usage	This tool evaluates the difference in room consumption between two different stays.
04	validate_stay_bounds	This tool checks if a set of stay dates falls within a specific time range.

See It in Action

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

U Calculate the room nights for 3 rooms from 2024-05-01 to 2024-05-05.



The total room nights for this stay is 12.

U Compare a stay with 10 room nights to a stay with 15 room nights.



The second stay is larger by 5 room nights.

U Is a stay from 2024-06-01 to 2024-06-03 within the range 2024-05-01 to 2024-07-01?



Yes, the stay is within the specified range.

Frequently Asked Questions

01 What can this MCP calculate?

It calculates total room nights for single stays, aggregates totals for groups, and compares usage between stays.

02 Can I use this with Claude?

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

03 How does it handle group bookings?

It uses the `aggregate_group_room_nights` tool to sum up totals for multiple bookings.

04 Does it check if dates are valid?

Yes, the `validate_stay_bounds` tool checks if stay dates fall within a specific period.

05 Do I need to host the MCP myself?

No, Vinkius hosts and manages the MCP for you, so it is ready to use immediately.

06 How do I calculate room nights for a single guest?

You can use the `'calculate_stay_room_nights'` tool by providing the number of rooms occupied and the check-in and check-out dates.

07 Can I sum up room nights for a whole group?

Yes, the `'aggregate_group_room_nights'` tool allows you to sum the total room nights for a collection of different stays.

08 How can I check if a stay is within a specific date range?

Use the `'validate_stay_bounds'` tool to verify if the arrival and departure dates fall within your specified range.

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>"hotel-room-night-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

Hotel Room Night 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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Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

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