MCP SERVER | NO CODE | CLOUD HOSTED

Family Storage Volume Manager MCP

Keep track of every box and bin in your home.

Family Storage Volume Manager MCP handles the math for your household organization. It lets your AI client calculate individual box volumes, sum up entire collections, and verify if your storage bins will actually fit in a closet or garage space. Stop guessing if your stuff will fit and start using precise measurements to manage your physical space.

A+ Quality Score 100/100

storage | volume | household | calculation | organization

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vinkius.com/en/ai-agent-connect/family-storage-volume-manager

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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

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.

Family Storage Volume Manager MCP

4 tools available
Cloud-hosted on Vinkius

Managing a household means constantly dealing with physical clutter and limited space. You have boxes in the attic, bins in the garage, and containers in the basement, but knowing if they will all fit in a new storage unit or a specific closet is a headache. This MCP takes the guesswork out of physical organization by giving your AI client the ability to process dimensions and volumes accurately.

You can use it to audit your current storage situation or plan for a move. Instead of manually calculating cubic inches for every single container, you just give your agent the dimensions. It handles the math, validates that your measurements make sense, and tells you exactly how much room you have left. Whether you are organizing a pantry or a massive storage unit, this tool ensures your physical inventory matches your available space.

Core Capabilities

01 — Volume Calculation

Your agent calculates the exact space occupied by any single container.

02 — Total Inventory Audits

The AI sums up the volume of multiple boxes to find the total footprint.

03 — Space Verification

Your client checks if a set of items will fit into a specific storage area.

04 — Dimension Validation

The tool confirms that the measurements you enter are physically realistic.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/family-storage-volume-manager** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to Vinkius.

02 Provide the dimensions of your boxes or storage areas to your AI agent.

03 Ask the agent to calculate volumes or check if items fit.

04 Receive precise mathematical results and capacity confirmations.

Connect your AI client to Vinkius and start managing your space through natural language.

Built For

This is for anyone managing physical inventory or household organization who wants to use an AI agent to handle the math.

Home Organizers

They hand off lists of container dimensions to the AI to plan closet or pantry layouts.

Moving Coordinators

They use the tool to see if a collection of boxes will fit into a moving truck or storage unit.

Estate Managers

They calculate total storage needs for large collections of household items.

What Changes When You Connect

01 Eliminates manual volume math for multiple containers.

02 Prevents overfilling spaces by checking capacity limits before you move items.

03 Catches invalid or impossible measurements automatically.

04 Provides a clear total volume for any list of boxes.

Real-World Applications

Moving Day Planning

Check if all your bedroom boxes will fit into the spare room of your new house.

Garage Organization

Calculate the total volume of plastic bins to see how much shelf space you need to buy.

Pantry Management

Determine if new storage containers will fit within your existing cabinet dimensions.

Storage Unit Rental

Compare the total volume of your household goods against the capacity of a rental unit.

Patterns to Avoid

Ignoring physical reality

AVOID

You tell your agent a box is 500 feet wide and 2 inches tall. The agent tries to calculate volume without questioning the logic.

✓ INSTEAD

Always run your measurements through `validate_box_dimensions` first. This ensures the numbers make sense before you start planning your layout.

Manual math errors

AVOID

You try to add up the volume of twenty different bins in your head or on a napkin to see if they fit in the garage.

✓ INSTEAD

Give the full list to your agent and use `sum_collection_volume`. It handles the addition perfectly every time.

Overestimating storage capacity

AVOID

You assume all your moving boxes will fit into a small closet just because they look small enough.

✓ INSTEAD

Use `check_capacity_limit` to compare your total box volume against the actual dimensions of the closet or storage unit.

The Right Fit

Connect this MCP if you manage physical spaces, moving logistics, or large household inventories. Do not connect it if you only work with digital assets. The decision depends on whether you need an agent to handle physical volume math for you.

Family Storage Volume Manager: 4 Precision Tools

These tools handle the geometry and math for your physical inventory. Your agent uses them to validate dimensions and calculate total space requirements.

#	TOOL	DESCRIPTION
01	`check_capacity_limit`	Determines if a specific collection of boxes will fit within a target area's available space.
02	`get_box_volume`	Calculates the volume of a single storage box using its length, width, and height.
03	`sum_collection_volume`	Adds up the total volume of a list of different storage boxes.
04	`validate_box_dimensions`	Checks that the dimensions you provided are physically possible and valid.

See It in Action

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

U What is the volume of a box that is 10cm long, 5cm wide, and 2cm high?

The volume of the box is 100 cubic centimeters.

U Will three boxes with dimensions (5,5,5), (10,10,10), and (2,2,2) fit in a space of 1500 cubic units?

Yes, the total volume is 1138 cubic units, which fits within the 1500 cubic units of available space.

U Calculate the total volume for a collection of boxes: [{"length": 4, "width": 3, "height": 2}, {"length": 5, "width": 5, "height": 5}]

The total volume for the two boxes is 145 cubic units.

Frequently Asked Questions

01 **How do I use this MCP with Claude?**

You connect your Claude client to Vinkius once, and then you can immediately start asking Claude to perform volume calculations and capacity checks using the tools in this MCP.

02 **Can this MCP check if my boxes will fit in a specific closet?**

Yes, you can use the check_capacity_limit tool to see if the total volume of your boxes is less than the available space in your closet.

03 **Does it handle different units of measurement?**

The tool performs calculations based on the numbers you provide, so you can use centimeters, inches, or any other unit consistently.

04 **What happens if I enter an impossible dimension?**

The validate_box_dimensions tool will check your input to ensure the measurements are physically possible.

05 **Do I need to host this myself?**

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

06 **How do I calculate the volume of a single box?**

You can use the `get_box_volume` tool by providing the length, width, and height of the container.

07 **Can I check if all my boxes will fit in my closet?**

Yes, use the `check_capacity_limit` tool. Provide the dimensions of your boxes and the total available space to see if they fit.

08 **What happens if I provide invalid dimensions?**

The `validate_box_dimensions` tool will check the inputs and return whether the dimensions are physically possible.

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 `"family-storage-volume-manager": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → 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

Family Storage Volume Manager 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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Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

LICENSE & USAGE

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