

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

Emergency Supply Expiry Planner MCP

Keep your emergency readiness levels steady and your supplies fresh.

Emergency Supply Expiry Planner MCP automates the rotation of your preparedness stock. It uses an Earliest-Expiry-First approach to make sure you aren't left with expired water, food, or medical supplies when you need them most. Your AI client handles the math for rotation calendars, shopping deadlines, and storage audits so you can focus on actual readiness.

A+ Quality Score 100/100

emergency

inventory

rotation

preparedness

supply-chain



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.

Emergency Supply Expiry Planner MCP

4 tools available

Cloud-hosted on Vinkius

Managing emergency supplies is a constant battle against expiration dates. If you don't rotate your stock, you end up throwing away money and, more importantly, losing the reliability of your kits. This MCP changes how you handle inventory by applying a strict Earliest-Expiry-First principle to your planning. Instead of manually checking every label, you let your AI client manage the lifecycle of every item in your storage.

You can use this to build a complete management strategy. It calculates exactly when you need to buy new stock based on lead times and current expiration dates. It also keeps track of your safety thresholds, so you know the moment a specific item falls below a usable level. Beyond just tracking dates, it helps you stay organized physically by scheduling regular storage audits. It's about moving from reactive panic to a proactive, automated system that ensures your supplies are always ready for use.

Core Capabilities

01 — Automated Rotation

Your agent uses Earliest-Expiry-First logic to prioritize which items to use or replace.

03 — Stock Monitoring

Your agent compares current quantities against your defined safety thresholds.

02 — Procurement Timing

The AI calculates exact order dates by factoring in item expiration and supplier lead times.

04 — Audit Scheduling

The AI organizes a timeline for physical inspections of your storage areas.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/emergency-supply-expiry-planner — connect your AI agent in three steps.

- 01Subscribe to the MCP on the Vinkius marketplace.
- 02Connect your AI client like Claude or Cursor with one click.
- 03Provide your current inventory data and safety thresholds to your agent.
- 04Ask your agent to generate rotation plans or check stock status.
- 05Follow the generated shopping deadlines and audit schedules.

Get your inventory management running in minutes by connecting your preferred client to Vinkius.

Built For

This MCP is built for anyone responsible for maintaining critical supply chains or emergency preparedness kits.

Emergency Management Coordinators

They hand off inventory tracking and rotation scheduling to the AI.

Logistics Managers

They use the tool to manage procurement deadlines and stock thresholds.

Household Preparedness Leads

They use the AI to automate the checking of food and medical supplies.

What Changes When You Connect

- 01Reduces waste by enforcing an Earliest-Expiry-First rotation.
- 02Prevents stockouts by calculating lead-time adjusted shopping deadlines.

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- | | |
|-----------|--|
| 03 | Maintains readiness through automated safety threshold monitoring. |
| <hr/> | |
| 04 | Organizes physical inventory through scheduled storage audits. |
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Real-World Applications

Food and Water Rotation

Ensure canned goods and bottled water are used before they expire by generating a rotation calendar.

Medical Kit Maintenance

Track expiration dates for bandages and medications to ensure kits are always functional.

Supply Chain Readiness

Manage procurement dates for critical supplies to account for shipping delays.

Storage Facility Audits

Schedule regular physical checks to ensure items are correctly stored and accounted for.

Patterns to Avoid

Manual Expiry Tracking

❌ AVOID

You spend hours every month manually checking expiration dates on every single can of food and bottle of water in your warehouse.

✓ INSTEAD

Let your agent handle the math. Use ``plan_rotation_and_actions`` to get a complete management plan that covers usage priorities and replacement tasks automatically.

Reactive Reordering

❌ AVOID

You realize you are out of critical medical supplies only when you actually need them for an emergency.

✓ INSTEAD

Stay ahead of shortages. Use ``calculate_shopping_deadlines`` to find the exact dates you need to place orders based on supplier lead times.

Ignoring Safety Thresholds

❌ AVOID

You assume you have enough stock until a shipment is delayed and you fall below your required levels.

✓ INSTEAD

Monitor your levels constantly. Use ``get_inventory_status`` to see how your current quantities stack up against your defined safety thresholds.

The Right Fit

Connect this MCP if you manage physical stockpiles where expiration dates dictate usability. If you only manage digital assets or non-perishable goods with no shelf life, you don't need this. The deciding factor is whether your inventory has a ticking clock.

Emergency Supply Expiry Planner 4 Tools

These tools manage the entire lifecycle of your emergency inventory, from real-time stock checks to automated procurement scheduling.

#	TOOL	DESCRIPTION
01	calculate_shopping_deadlines	This tool identifies the specific dates you must place new orders to keep your supplies at required levels.
02	get_inventory_status	This tool provides a real-time summary of your current stock levels compared to your set safety thresholds.
03	get_storage_audit_plan	This tool creates a structured schedule for you to perform physical inspections of your storage locations.
04	plan_rotation_and_actions	This tool generates a full management plan that covers usage priorities, replacement tasks, and upcoming shopping needs.

See It in Action

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

- U** Generate a management plan for my supplies: water (qty 10, expires 2025-12-01, lead time 5 days, threshold 3), medical kit (qty 2, expires 2024-06-01, lead time 10 days, threshold 1).



Your rotation plan is ready. Prioritize the medical kit for immediate use or replacement. Your shopping deadline for the medical kit is 2024-05-22 to ensure it is replaced before the June expiration.

- U** Check the status of my inventory: water (qty 5, threshold 4), flashlight (qty 1, threshold 1).



Inventory status: water is healthy, and flashlight is low.

- U** When do I need to buy more water if it expires on 2025-01-01 and the lead time is 7 days?



You must order more water by 2024-12-25 to maintain continuous readiness.

Frequently Asked Questions

01 How does this MCP prevent expired supplies?

It uses an Earliest-Expiry-First principle to create rotation plans that prioritize using or replacing items before they expire.

02 Can I use this with Claude or Cursor?

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

03 How does it handle shipping delays?

The tool calculates shopping deadlines by factoring in the specific lead time you provide for each item.

04 Do I need to host the MCP myself?

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

05 What is a safety threshold?

A safety threshold is the minimum quantity of an item you want to have on hand. The MCP alerts you when your stock falls below this level.

06 How does the rotation logic work?

The system uses the Earliest-Expiry-First (EEF) rule. By using ``plan_rotation_and_actions``, you receive a prioritized schedule to consume or replace items before they expire.

07 How can I track if my supplies are running low?

You can use the ``get_inventory_status`` tool. It compares your current quantities against your defined threshold levels and flags items as healthy, low, or critical.

08 Can I schedule regular storage checks?

Yes. The ``get_storage_audit_plan`` tool allows you to generate a recurring schedule for physical inspections of your storage locations.

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>"emergency-supply-expiry-planner": { "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

Emergency Supply Expiry Planner 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

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