

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

Appliance Decision Support MCP.

Stop guessing if a repair is worth the money.

Appliance Decision Support MCP helps you make sense of broken household machines. Instead of wondering if a new dishwasher is better than a \$300 repair, you can get a clear recommendation based on the unit's age, warranty, and current repair quotes. It handles the math and the logistics so you can decide whether to call a technician or shop for a replacement.

A+ Quality Score 100/100

appliances

repair

maintenance

economics

household



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.

Appliance Decision Support MCP

4 tools available

Cloud-hosted on Vinkius

You shouldn't have to play mathematician every time your refrigerator stops cooling. This MCP acts as a decision engine for your home maintenance. When an appliance fails, you can feed the symptoms, age, and repair estimates into your AI client to get a logical breakdown of your options. It looks at the economic lifespan of the unit and compares repair costs against the price of a new model. Beyond just the math, it helps you prepare for the next step. If you decide to fix it, you'll get the details needed to book a pro. If you decide to replace it, you'll get a checklist to handle the transition and disposal. It turns a stressful breakdown into a clear, data-driven plan.

Core Capabilities

01 — Repair vs Replace Logic

Your agent uses repair quotes and appliance age to suggest the most cost-effective path.

02 — Financial Lifespan Tracking

The AI calculates if a machine is still a good investment or a money pit.

03 — Service Preparation

Your agent generates the specific requirements needed to book a professional technician.

04 — Replacement Logistics

The AI provides a checklist to manage the installation and disposal of new appliances.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/appliance-decision-support — connect your AI agent in three steps.

- 01
- Connect the MCP to Claude, Cursor, or Windsurf via Vinkius.
- 02
- Provide your appliance details like age, symptoms, and repair quotes to your AI client.
- 03
- The AI uses the MCP tools to run economic and logistical analyses.
- 04
- Receive a clear recommendation or a step-by-step checklist for your next move.

Connect the MCP to your AI client and start asking questions about your broken appliances.

Built For

Homeowners and property managers who need to make fast, logical decisions about appliance maintenance.

Homeowners

Use the MCP to decide if a repair quote is a bad deal before paying a technician.

Property Managers

Hand off repair cost analysis to the AI to decide whether to fix or replace units in rental properties.

Handyperson Assistants

Use the tool to generate service requirements and transition checklists for clients.

What Changes When You Connect

- 01
- Eliminates guesswork by comparing repair costs to replacement prices.
- 02
- Provides a logistical plan for appliance installation and disposal.
- 03
- Identifies when an appliance is reaching its end-of-life stage.

04 Prepares all necessary details for professional service bookings.

Real-World Applications

Emergency Repair Decisions

When a fridge dies, use the tool to see if the repair quote makes sense compared to buying a new one.

Planned Upgrades

Use the transition checklist when you've already decided to buy a new washing machine to ensure the installation goes smoothly.

Budget Planning

Run a lifespan analysis on older appliances to predict when you'll need to spend money on replacements.

Technician Prep

Generate a list of requirements before a repair person arrives to ensure they have what they need.

Patterns to Avoid

Ignoring the machine's age

❌ AVOID

You see a \$200 repair quote for a 12-year-old dishwasher and decide to pay it immediately without checking the machine's history.

✓ INSTEAD

Run a ``get_economic_lifespan_analysis`` first to see if the unit is nearing its end-of-life before committing to the repair.

Skipping the logistics phase

❌ AVOID

You buy a new washing machine but realize too late that you don't have a plan for hauling away the old one.

✓ INSTEAD

Use ``get_replacement_transition_checklist`` to map out the installation and disposal steps before the new unit arrives.

Vague technician requests

❌ AVOID

You call a repair person but can't tell them exactly what's wrong or what parts might be needed.

✓ INSTEAD

Use ``get_service_booking_requirements`` to gather the specific details a technician needs before you schedule the visit.

The Right Fit

Homeowners and property managers should connect this MCP to stop overpaying for repairs on dying appliances. If you only deal with brand new equipment under full warranty, you don't need this. The decision rests on whether you want a data-driven way to weigh repair costs against replacement prices.

Appliance Decision Support MCP Tools

These tools handle the math and logistics of appliance maintenance. They turn repair quotes and machine age into actionable repair or replacement plans.

#	TOOL	DESCRIPTION
01	get_decision_brief	This tool provides a direct recommendation on whether to repair or replace a specific appliance. It weighs the cost of parts and labor against the value of a new unit.
02	get_economic_lifespan_analysis	This tool evaluates the remaining financial value of your appliance. It helps you see if a machine is nearing its end-of-life before it breaks again.
03	get_replacement_transition_checklist	This tool generates a logistical roadmap for when you decide to buy a new unit. It covers the steps needed to move from your old machine to the new one.
04	get_service_booking_requirements	Use this to gather the specific details a technician will need before you schedule a repair. It ensures you have the right information ready for the service call.

See It in Action

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

U My refrigerator is 6 years old, the compressor is making a loud noise, it is not under warranty, the repair quote is \$300, and a new one costs \$1200. My repair threshold is 25%. Should I repair or replace?



REPAIR. The repair cost of \$300 is 25% of the \$1200 replacement cost, which meets your threshold. Since the appliance is mid-life, repairing is the recommended path.

U I need to replace my washing machine. It's a front-loader, I need to know if I need special installation and how to get rid of the old one.



To replace your washing machine, you should first verify that the new unit's water inlet and electrical connections match your current setup. You should also schedule a professional removal service to handle the disposal of the old unit.

U Is my 10-year-old dishwasher still worth fixing?



Given the age of 10 years, the appliance is likely at its end-of-life. Even if a repair is relatively inexpensive, the high probability of future failures suggests that replacement is the more stable long-term decision.

Frequently Asked Questions

01 How does this MCP decide if I should repair an appliance?

It analyzes the cost of the repair against the price of a new unit and considers the age of the machine and its warranty status.

02 Can I use this with Claude or Cursor?

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

03 Does it help with getting rid of old appliances?

Yes, the replacement transition checklist includes guidance on handling the disposal of your old unit.

04 What information do I need to provide for a decision?

You should provide the appliance age, the symptoms of the failure, the repair quote amount, and the cost of a new replacement.

05 Will it help me prepare for a repair technician?

Yes, the service booking requirements tool generates the specific details you'll need to have ready when scheduling a pro.

06 How does the tool decide between repair and replacement?

The decision is based on comparing the ``currentServiceQuote`` against a user-defined ``repairThreshold`` percentage of the ``replacementCost``, while also considering the appliance age and warranty status.

07 Can I use this to prepare for a repair technician?

Yes, by using ``get_service_booking_requirements``, you can generate a list of necessary information like serial numbers and technical notes to provide to the professional.

08 What happens if my appliance is under warranty?

If ``warrantyStatus`` is true, the engine prioritizes repair if the symptom is a covered defect, as this minimizes out-of-pocket costs.

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>"appliance-decision-support": { "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

Appliance Decision Support 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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