MCP SERVER | NO CODE | CLOUD HOSTED

Maintenance After Repair Plan MCP

Build precise maintenance schedules for assets after they are repaired.

Maintenance After Repair Plan MCP handles the heavy lifting of post-repair asset management. It generates structured maintenance packages, identifies physical indicators of repair success, and calculates exactly when your next service window should be. Your AI client uses manufacturer instructions and local climate data to build actionable calendars that keep assets running safely.

A+ Quality Score 100/100

maintenance | repair | scheduling | inspection | asset-lifecycle

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vinkius.com/en/ai-agent-connect/maintenance-after-repair-plan

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.

Maintenance After Repair Plan MCP

4 tools available
Cloud-hosted on Vinkius

When you finish a repair, the work isn't actually done. You still need to ensure the fix holds and plan for the next time that asset needs attention. This MCP manages that entire post-repair lifecycle. Instead of manually calculating service dates or guessing what to look for during inspections, you let your AI client handle the math and the logic.

It pulls in material care requirements and factors in environmental exposure, like coastal salt or arid heat, to adjust how often you need to check on things. You can generate a full maintenance package in seconds or get a specific checklist of physical signs to watch for to confirm a repair was successful. It turns manufacturer guidelines and environmental variables into a concrete, scheduled plan that keeps your assets in service longer.

Core Capabilities

01 — Post-Repair Scheduling

Your agent calculates the next service window based on climate and manufacturer rules.

02 — Material Care Logic

The AI retrieves specific care requirements for the materials used in a repair.

03 — Success Verification

Your agent generates checklists of physical indicators to confirm a repair worked.

04 — Environmental Adaptation

The tool adjusts maintenance intervals based on local climate exposure.

05 — Package Generation

Your agent creates full, structured maintenance plans for any repaired asset.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/maintenance-after-repair-plan** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to Vinkius.

02 Tell your agent about the repair, the materials used, and the environment.

03 The agent uses the MCP tools to calculate dates and care rules.

04 Receive a structured maintenance plan or a specific inspection checklist.

Connect your AI client to Vinkius and start managing asset lifecycles through simple text commands.

Built For

This MCP is built for professionals managing physical infrastructure and equipment lifecycles. You use it to hand off complex scheduling and inspection logic to your AI agent.

Asset Managers

You use the AI to generate long-term maintenance calendars for entire fleets or facilities.

Maintenance Engineers

You hand off the task of calculating service windows and material care rules to your agent.

Field Inspectors

You use the AI to generate specific checklists of what to look for during physical site visits.

What Changes When You Connect

01 Calculates service windows using manufacturer data and climate variables.

02 Generates checklists of physical signs to verify repair success.

03	Creates structured maintenance packages immediately after a repair is completed.
04	Automates the lookup of material-specific care requirements.

Real-World Applications

Coastal Infrastructure

Adjust maintenance frequency for steel reinforcements exposed to salt air.

Sealing Inspections

Get a list of physical signs like cracking or shrinkage to check silicone repairs.

Arid Environment Management

Calculate service timing for assets in dry climates using manufacturer guidelines.

Post-Repair Verification

Use checklists to ensure a recent repair meets all physical success indicators.

Patterns to Avoid

Manual scheduling guesswork

AVOID

You try to estimate the next service date by looking at a calendar and guessing how much the local humidity might affect the repair.

✓ INSTEAD

Let your agent handle the math. Use `calculate_next_service_window` to get an exact date based on manufacturer rules and environmental factors.

Vague inspection criteria

AVOID

A field inspector walks onto a site and just looks around to see if a silicone seal looks okay.

✓ INSTEAD

Give your agent the specific physical indicators it needs to watch for. Use `get_inspection_checklist` to generate a concrete list of success markers.

Ignoring material-specific needs

AVOID

You apply a standard maintenance schedule to every asset regardless of the specific chemicals or metals used in the fix.

✓ INSTEAD

Always check the specific requirements for the substances you used. Use `query_material_care_rules` to get the baseline care instructions.

The Right Fit

Connect this MCP if you manage physical infrastructure or equipment where repairs require follow-up inspections. Do not connect it if you only handle digital assets or software. The decision depends on whether your maintenance needs depend on physical material properties and local climate.

Maintenance After Repair Plan MCP Tools

These tools handle the math and logic for post-repair lifecycles. Your agent uses them to schedule service windows, pull material rules, and build inspection checklists.

#	TOOL	DESCRIPTION
01	`query_material_care_rules`	This tool pulls the baseline care requirements for specific materials. It tells your agent exactly how to handle the substances used in your repair.
02	`calculate_next_service_window`	This tool determines the exact timing for your next required intervention. It calculates when you need to act based on previous service dates and manufacturer recommendations.
03	`generate_maintenance_plan`	This tool builds a complete, structured maintenance package for an asset that just underwent repair. It organizes all necessary tasks into a single plan.
04	`get_inspection_checklist`	This tool provides a focused list of physical indicators to check. It helps you confirm if a repair was actually successful by identifying what to look for.

See It in Action

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

U Generate a maintenance plan for a structural reinforcement repair using galvanized steel in a coastal environment with these instructions: [{'taskName': 'Corrosion Check', 'intervalMonths': 6, 'description': 'Inspect for rust'}]

Your maintenance plan for the structural reinforcement is ready. Recurring tasks include a Corrosion Check every 3 months due to coastal exposure. Inspection signs to watch for include surface discoloration and pitting on the galvanized steel. Your next service window is scheduled for June 2024.

U What are the inspection signs for a sealing repair using silicone in a temperate climate?

For a silicone sealing repair, you should monitor for adhesion loss, surface cracking, or material shrinkage.

U When is my next service due if my last service was 2023-10-01 and the manufacturer recommends every 12 months in an arid climate?

Your next service is due on 2024-10-01. The urgency level is Low.

Frequently Asked Questions

01 **How does the MCP handle different climates?**

The MCP factors in climate exposure, such as coastal or arid environments, to adjust maintenance intervals and care instructions.

02 **What AI clients can I use with this MCP?**

You can use this MCP with any compatible client, including Claude, Cursor, Windsurf, and VS Code.

03 **Can I use this to check if a repair was successful?**

Yes. You can use the get_inspection_checklist tool to get a list of physical indicators to look for to confirm the repair is holding.

04 **Does it work with manufacturer instructions?**

Yes. The MCP integrates manufacturer instructions to ensure the maintenance plans and service windows follow official guidelines.

05 **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.

06 **How does the plan account for environmental factors?**

The system uses the `climateExposure` input to adjust the frequency of tasks and service windows, ensuring higher-risk environments like Coastal areas receive more frequent inspections.

07 **Can I use my own manufacturer instructions?**

Yes, you can provide specific manufacturer instructions via the `generate_maintenance_plan` tool to ensure the schedule adheres to official guidelines.

08 **What information is needed to generate a plan?**

To use `generate_maintenance_plan`, you need the repair type, a list of installed materials, manufacturer instructions, and the climate exposure context.

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 `"maintenance-after-repair-plan": { "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

Maintenance After Repair Plan 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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