

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

Bicycle Maintenance Calendar MCP

Keep your bike in top shape with predictive service scheduling.

Bicycle Maintenance Calendar MCP uses your riding patterns to forecast exactly when your bike needs service. Instead of guessing based on vague timelines, your AI client uses actual distance and intensity data to tell you when to clean your chain, check your brakes, or inspect your tires. It turns your riding history into a clear, actionable service roadmap.

A+ Quality Score 100/100

bicycle

maintenance

scheduling

predictive

cycling-tech



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.

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.

Bicycle Maintenance Calendar MCP

4 tools available

Cloud-hosted on Vinkius

Stop guessing when your bike needs a tune-up. This MCP acts as a predictive engine that tracks your maintenance needs by looking at both time and how much you actually ride. If you suddenly start riding 100km a week instead of 20km, your service intervals change. This tool accounts for that shift so you don't run into mechanical issues mid-ride. You can use it to see a full list of upcoming tasks or quickly find out if you've missed a critical brake check. It's about moving away from static calendars and toward a schedule that actually reacts to your life on the saddle. Your AI client handles the math, calculating how your riding intensity impacts your parts longevity, so you can focus on the ride itself.

Core Capabilities

01 — Predictive Forecasting

Your agent calculates future service dates by analyzing your current riding velocity.

02 — Usage Analysis

The AI determines how much your weekly mileage shortens the life of your parts.

03 — Overdue Detection

Your client identifies specific maintenance tasks that have passed their due date.

04 — Schedule Management

The tool generates a complete list of all required and upcoming bike service tasks.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/bicycle-maintenance-calendar — connect your AI agent in three steps.

01 Connect the MCP to your preferred client like Claude or Cursor via Vinkius.

02 Provide your riding data or current pace to your AI client.

03 Ask your agent for a schedule or a prediction.

04 Receive specific dates and task lists directly in your chat interface.

Get your bike maintenance automated in a few steps.

Built For

This is for cyclists who want to move away from manual logs and toward automated, data-driven bike care.

Daily Commuters

They hand off the tracking of mileage-based wear to the AI to ensure their bike is reliable for work.

Endurance Athletes

They use the agent to predict how high-intensity training blocks will trigger more frequent service needs.

Cycling Tech Enthusiasts

They use the predictive tools to manage multiple bikes through a single AI interface.

What Changes When You Connect

01 Reduces mechanical failures by predicting wear before it happens.

02 Replaces static calendars with dynamic schedules that react to mileage.

- 03 Eliminates the need to manually track every single service interval.
-

Real-World Applications

Training Block Planning

Use the tool to see how a heavy training month will shift your next service date forward.

Safety Checks

Quickly check for overdue brake or tire inspections before a long weekend ride.

Budgeting for Parts

Forecast upcoming maintenance to know when you'll need to buy new chains or tires.

Routine Monitoring

Keep a constant pulse on your bike's health through simple natural language questions.

Patterns to Avoid

Ignoring riding intensity changes

❌ AVOID

You keep using a static calendar that says your chain is fine because it's only been three months since your last check.

✓ INSTEAD

Use ``calculate_usage_impact`` to see how your recent high-mileage weeks actually accelerated component wear.

Reactive rather than proactive checks

❌ AVOID

You wait until your gears start skipping on a climb to realize you missed your service window.

✓ INSTEAD

Run ``check_overdue_tasks`` regularly to catch neglected items like brakes or chains before they fail mid-ride.

Guessing your next shop visit

❌ AVOID

You try to estimate when you'll need new tires based on a vague feeling about how much you've ridden lately.

✓ INSTEAD

Use ``predict_next_due_date`` to get a specific forecast based on your current riding pace.

The Right Fit

Connect this MCP if you ride enough that mileage changes your service needs. If you only ride once a month regardless of distance, a standard calendar is fine. The deciding factor is whether your riding volume fluctuates significantly.

Bicycle Maintenance Calendar MCP Tools

These tools turn your riding data into a proactive service schedule. They handle the math between your mileage and component wear.

#	TOOL	DESCRIPTION
01	calculate_usage_impact	This tool shows how your weekly riding distance accelerates the wear on your components. It helps you see the direct link between riding harder and needing more frequent service.
02	check_overdue_tasks	This tool filters your list to show only the maintenance items that need immediate attention. It's the fastest way to see if you've neglected a critical part like your brakes or chain.
03	get_maintenance_schedule	This tool provides a complete view of every upcoming and overdue task. It gives you a full picture of your bike's health in one go.
04	predict_next_due_date	This tool forecasts your next service date based on your current riding pace. It answers exactly when you'll need to visit a shop if you keep riding at your current rate.

See It in Action

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

U Show me my full bicycle maintenance schedule.



Your upcoming maintenance tasks are: Chain Cleaning (due in 5 days), Brake Check (due in 12 days), and Tire Inspection (due in 20 days).

U When will I need to service my bike if I keep riding 100km per week?



Based on your current pace, your next service is predicted for October 15th, 2024, after approximately 450km of riding.

U Are there any maintenance tasks I have missed?



Yes, your Chain Lubrication is overdue by 3 days and your Brake Pad Inspection is overdue by 1 day.

Frequently Asked Questions

01 How does this MCP know when my bike needs service?

It uses a predictive engine that balances the time passed with the actual distance you have ridden.

02 Can I use this with Claude or Cursor?

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

03 Does it track my riding intensity?

Yes, the tool calculates how your weekly distance and riding intensity impact your service intervals.

04 How do I find out if I missed a service?

You can simply ask your AI client to check for any overdue tasks.

05 Do I need to host this myself?

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

06 How does the scheduling work?

The engine calculates due dates by monitoring both the time elapsed since the last service and the distance traveled using ``get_maintenance_schedule``.

07 Can I predict when my next service is due?

Yes, you can use the ``predict_next_due_date`` tool to forecast your next service date based on your current riding distance and planned weekly mileage.

08 How do I know if my maintenance is overdue?

You can quickly identify tasks that need immediate attention by using the ``check_overdue_tasks`` tool.

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>"bicycle-maintenance-calendar": { "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

Bicycle Maintenance Calendar 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>

LICENSE & USAGE

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