

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

Amsterdam Waste & Recycling MCP

Get real-time municipal waste data for any Amsterdam address.

Amsterdam Waste & Recycling MCP provides direct, keyless access to the City of Amsterdam's official DSO open-data platform. Your AI client can pull specific collection schedules, locate street containers, and check recycling point weighings without needing to manage API keys or complex credentials. It turns municipal waste logistics into actionable data for your agent.

A+ Quality Score 96.67/100

amsterdam

waste-management

recycling

waste-collection

open-data

government-public-data



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.

Amsterdam Waste & Recycling MCP

5 tools available

Cloud-hosted on Vinkius

You can pull live waste management data straight from the City of Amsterdam's official platform. This MCP connects your AI client to the DSO open-data API, giving you immediate access to household waste schedules and public container locations. Instead of digging through municipal websites, you just ask your agent for the collection days at a specific postal code or the nearest bin for paper recycling. It handles the connection to the city's data stream so you don't have to deal with rate limits or authentication. Whether you are checking when to put out your GFT bin or looking for the nearest glass container, the data is ready to use. It covers everything from specific waste fractions and container volumes to weigh-in records at city recycling points.

Core Capabilities

01 — Address-based scheduling

Your agent can look up exact collection days for any Dutch postal code.

02 — Container mapping

The AI can find the physical location of public waste bins for specific materials.

03 — Waste stream identification

Your client can identify the correct codes and names for all city-collected fractions.

04 — Recycling logistics data

The agent can access weigh-in records from municipal recycling points.

05 — Equipment reference

The AI can query the standard types and volumes of containers used by the city.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/amsterdam-waste-recycling — connect your AI agent in three steps.

- 01 Subscribe to the Amsterdam Waste & Recycling MCP on Vinkius.
- 02 Connect your preferred client like Claude or Cursor with one click.
- 03 Ask your agent a question about Amsterdam waste or specific addresses.
- 04 The MCP fetches the live data from the city's DSO platform.
- 05 Your agent receives the data and answers your request immediately.

Connecting to Amsterdam's waste data is a one-click process through Vinkius.

Built For

This MCP is built for anyone needing to interface with Amsterdam's municipal waste infrastructure through an AI agent.

Circular economy analysts

They hand off data gathering tasks to the agent to analyze waste patterns.

Waste operators

They use the agent to quickly verify collection schedules and container locations.

Residents and visitors

They use the agent to find out when to put out their bins at a specific address.

What Changes When You Connect

- 01 Eliminates the need to manually manage API keys or credentials.
- 02 Provides direct access to the official Amsterdam DSO open-data platform.

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- | | |
|-----------|--|
| 03 | Removes the friction of navigating municipal web portals for simple schedule checks. |
| <hr/> | |
| 04 | Enables automated reasoning about municipal waste logistics. |
| <hr/> | |
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Real-World Applications

Residential scheduling

An agent can tell a resident exactly which day to put their glass or paper out based on their postal code.

Logistics planning

Analysts can use the container and weighing data to model waste collection efficiency.

Urban navigation

A user can ask their agent to find the nearest public bin for a specific type of waste while walking in the city.

Data integration

Developers can feed real-time municipal waste data into larger automated workflows.

Patterns to Avoid

Guessing waste stream names

❌ AVOID

You ask your agent to find the collection schedule for 'plastic bottles' without knowing the city's specific code.

✓ INSTEAD

Run `'list_waste_fractions'` first to get the exact names and codes the city uses for its data queries.

Manual address lookups

❌ AVOID

You spend ten minutes scrolling through municipal PDF calendars to find when a specific street's bins go out.

✓ INSTEAD

Use `'get_waste_calendar'` to pull the exact collection days and bring-out windows for any Amsterdam address instantly.

Searching for non-existent bins

❌ AVOID

You tell your agent to find a bin for a material that the city doesn't collect in that specific area.

✓ INSTEAD

Check `'list_waste_fractions'` to confirm what is collected, then use `'find_waste_containers'` to locate the physical bins.

The Right Fit

Connect this MCP if you need real-time municipal waste data for logistics, urban planning, or residential management in Amsterdam. Do not connect it if you are looking for waste data outside of the Amsterdam DSO ecosystem. The decision depends entirely on whether your work requires official City of Amsterdam data streams.

Amsterdam Waste & Recycling 5 Tools

These tools provide direct access to Amsterdam's DSO open-data API for waste schedules, container locations, and recycling records.

#	TOOL	DESCRIPTION
01	get_waste_calendar	Retrieves the waste collection schedule for a specific Amsterdam address. It provides collection days, bring-out windows, and the registered waste streams for that location.
02	list_waste_fractions	Lists all the specific waste streams the city collects. Use this to find the exact names and codes needed to query the waste calendar.
03	list_container_types	Provides a reference list of the different container types and volumes used throughout the city.
04	find_waste_containers	Locates public waste containers on Amsterdam streets. It returns details like container owner, status, and location for specific waste streams.
05	get_recycling_weighings	Accesses weigh-in records from city recycling points. This allows you to check specific locations and their associated fee groups.

See It in Action

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

What is the waste calendar for 1015NR, Eerste Anjeliersdwarstraat 1?



The waste calendar for 1015NR includes the following streams: Glas, Restafval, and Papier. Collection days and bring-out windows are provided for each stream based on the local collection area.

List all waste fractions the city collects and their codes.



Amsterdam collects several streams including Restafval, Papier, GFT, Glas, and plastic. Each stream has a specific code and calendar order used for scheduling.

Where can I drop off paper in Amsterdam? Find paper waste containers.



I found several public containers for the Papier stream. They are located in various neighborhoods with specific serial numbers and owner details available.

Frequently Asked Questions

01 Do I need an API key to use this?

No. This MCP connects directly to the city's open-data platform without requiring you to manage any credentials or keys.

02 Which AI clients can use this MCP?

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

03 Is the data real-time?

Yes. The data comes directly from the official City of Amsterdam DSO open-data platform.

04 Can I find specific container locations?

Yes. You can use the tool to find public waste containers for specific waste streams across different neighborhoods.

05 Does this work for any address in Amsterdam?

Yes. You can query the waste calendar using any valid Dutch postal code within the city's service area.

06 Do I need an API key?

No. All endpoints of the city's DSO open-data platform used by this integration are public (OPENBAAR) and work with zero credentials. The city has announced it may introduce a free key regime in the future; today the APIs are keyless.

07 Where does the data come from?

From the city of Amsterdam's official open-data platform (api.data.amsterdam.nl/v1/): the afvalwijzer (waste calendar), huishoudelijkafval v2 (fractions, containers, container types) and recyclepunten (recycling point weighings) dataset services.

08 Does the waste calendar return exact pickup dates?

It returns the collection days registered per address and waste stream (e.g. "Dinsdag" = Tuesday) plus the bring-out window and collection area. The city publishes calendar schedules per stream rather than a per-house date, so treat the days-of-week as the collection schedule for that address.

09 Which areas are covered?

All of the city of Amsterdam. The waste calendar is registered per address (postal code + street + house number); containers and recycling points carry their own location data, including EPSG:28999 (RD New) coordinates.

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>"amsterdam-waste-recycling": { "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

Amsterdam Waste & Recycling 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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Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

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