

MCP SERVER

NO CODE

CLOUD HOSTED

# Arcadia Utility Cloud MCP for AI Agents

## Automated Collection of Global Utility Billing and Usage Data

Arcadia Utility Cloud lets your AI client automatically gather and audit utility data. It connects to thousands of global electric, gas, water, and waste providers, letting you track accounts, consumption patterns, and billing statements across massive portfolios in one place.

**A+** Quality Score 100/100

utility-billing

data-collection

consumption-analytics

automated-reporting

energy-management

audit-trails



# 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

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## 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

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## 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

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## 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](https://cloud.vinkius.com) — connect your AI agent in under 60 seconds.

# Arcadia Utility Cloud MCP

6 tools available

Cloud-hosted on Vinkius

Managing utility data used to mean juggling dozens of provider portals and spreadsheets, which is a nightmare for audits and sustainability reporting. This MCP handles that complexity by giving your agent a unified view of global utilities—from electric meters to municipal water service.

It lets you list every single account or meter across multiple providers and then drill down into specific data points. Need to audit billing charges? Your agent can pull statement metadata for an entire portfolio, ensuring nothing gets missed. Analyzing resource usage is straightforward; you just ask your client to retrieve consumption metrics for a particular meter.

The whole system uses standard security protocols so sensitive operational data stays protected while allowing your AI client access to everything it needs. Because this MCP sits on the Vinkius catalog, you connect once and gain immediate access to automated utility oversight for financial reporting or ESG compliance.

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## Core Capabilities

### 01 — Inventory all connected accounts

List every utility account linked across multiple providers so you can get a complete picture of the client's service footprint.

### 03 — Audit billing statements and charges

List all available utility statements and then pull the metadata—including charge dates and periods—for financial auditing.

### 02 — Retrieve consumption metrics for meters

Get detailed usage data, like kilowatt-hours or gallons consumed, for any specific meter ID to analyze resource trends.

### 04 — Manage large-scale meter lists

Pull a comprehensive list of every utility meter tracked in the cloud, helping you audit your physical assets.

# One Click on Vinkius — From Prompt to Execution

Available at [vinkius.com/mcp/arcadia-utility-cloud](https://vinkius.com/mcp/arcadia-utility-cloud) — connect your AI agent in three steps.

- 01** Your agent first uses the connection check tool to verify access across all necessary global providers.
- 02** Next, it lists accounts or meters to build a full inventory of what needs monitoring. You point your agent at a specific account ID or meter number.
- 03** Finally, your agent retrieves the targeted data—be it statement metadata or usage metrics—and presents the clean results directly.

The bottom line is that instead of logging into provider portals one by one, you just ask your AI client to pull all the necessary utility records automatically.

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## Built For

This MCP is essential for any professional dealing with large-scale operational spending or environmental compliance. It's built for people who spend time aggregating data from disparate sources, like sustainability managers tracking carbon footprint or finance teams auditing complex utility billing.

### **Sustainability Manager**

You use this to automatically gather consumption and account data needed for annual carbon footprint calculations and ESG reporting.

### **Accounts Payable Specialist**

You audit utility billing across large groups of properties, ensuring accuracy and finding discrepancies or potential overcharges before payment deadlines.

### **Energy Engineer**

You pull granular usage data from individual meters to monitor efficiency improvements and model resource consumption changes for capital planning.

## What Changes When You Connect

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- 01** Audit utility spending by listing statements and pulling the precise metadata using `get_statement`, ensuring full visibility into all charges.

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  - 02** Track resource use patterns across entire properties. Use `get_meter_data` to pull usage metrics for specific meters, identifying waste or inefficiency.

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  - 03** Gain a complete financial picture of your assets with `list_accounts`, giving you an immediate inventory of every connected utility account.

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  - 04** Manage physical infrastructure data easily by using `list_meters` to generate a master list of all tracked utility meters in the cloud.

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  - 05** Simplify compliance reporting. By pulling structured data through `list_statements` and `get_statement`, you drastically cut down manual audit time.
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## Real-World Applications

### Auditing an entire corporate portfolio

The AP team needs to reconcile utility costs across 50 properties. Instead of downloading 50 PDFs and manually comparing dates, they ask their agent to `list_accounts` first, then use `get_statement` multiple times to pull all the necessary billing metadata for comparison.

### Identifying meter discrepancies

An Energy Engineer suspects an old water line is underreporting usage. They ask their agent to `list_meters` and select a specific ID, then use `get_meter_data` to pull historical trends for comparison against expected benchmarks.

### Calculating annual carbon footprint

The Sustainability Manager needs energy data for a compliance report. They ask their agent to `list_meters` and identify all gas and electric meters, then use `get_meter_data` on each one to collect the total consumption metrics required.

### Verifying billing coverage

A finance officer needs assurance that all active properties are accounted for. They first run `list_accounts` to ensure no property is missed, confirming the utility service status across the entire group.

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## Patterns to Avoid

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### Treating billing data as static files

#### X AVOID

Manually downloading PDFs from 20 different utility websites and trying to copy-paste charges into a spreadsheet. This process takes days and is error-prone.

#### ✓ INSTEAD

Use the Arcadia Utility Cloud MCP by first running `list_statements`, then calling `get_statement` for every relevant ID. Your agent handles the data extraction automatically, giving you clean, structured records.

### Ignoring meter inventory gaps

#### X AVOID

Assuming all properties have meters connected just because they are active accounts. You risk missing usage data and creating inaccurate reports.

#### ✓ INSTEAD

Always start by calling `list_meters` to get a definitive count of every physical asset tracked, then use `get_meter_data` only on the confirmed IDs.

### Mixing account types

#### X AVOID

Trying to pull usage data (consumption) using an Account ID. Usage is tied to the physical meter, not just the billing service.

#### ✓ INSTEAD

Use `list_accounts` first to identify the service area, but then use `list_meters` and `get_meter_data` with the specific meter IDs for consumption metrics.

## The Right Fit

You should use this MCP if your core problem is aggregating complex utility data from multiple providers. If you need to audit billing charges or track usage patterns across a wide geographical area, this tool's combination of `list_accounts` and `get_statement` is perfect.

Don't use it if all you need is simple historical tracking for one single account; in that case, basic utility portal access might suffice. However, if your job involves cross-provider auditing or ESG reporting, you must use this MCP to gain the necessary global oversight. It's designed for scale and complexity.

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## Arcadia Utility Cloud: Automating Complex Global Billing Audits

Right now, auditing utility billing is a massive pain point. You have to log into the gas company portal, download statements; then switch over to the water provider's site and repeat the process. Copying charges, matching periods, and reconciling discrepancies across dozens of PDFs takes days and guarantees human error.

With this MCP, you simply tell your agent that task—to audit the portfolio. Your client pulls all available utility statements using `list_statements`, then uses `get_statement` to pull structured metadata for every single account. You end up with a clean, auditable data table in minutes, not days.

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## Arcadia Utility Cloud: Streamlining Meter-Level Energy Reporting

Before this MCP, monitoring resource usage meant manually reading meter dials or relying on quarterly reports that only showed totals. If you needed to see the daily consumption curve for efficiency modeling, you were out of luck.

Now, your agent can `list_meters` to find every asset and then call `get_meter_data` for granular consumption patterns. You get real-time usage metrics suitable for engineering analysis—that's a massive change.

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## 6 Tools in the Arcadia Utility Cloud for Consumption Analytics

These tools let your agent inventory utility accounts, retrieve billing statements, and gather precise consumption metrics from specific meters.

#	TOOL	DESCRIPTION
01	<code>get_account_check</code>	Verifies the connection status with Arcadia Utility Cloud so your agent knows if it can access utility data.
02	<code>get_meter_data</code>	Retrieves actual energy or resource usage metrics for a single, specified utility meter ID.
03	<code>get_statement</code>	Pulls the specific details and metadata for one selected billing statement using its unique identifier.
04	<code>list_accounts</code>	Pulls a comprehensive list of every utility account that has been connected to the cloud for monitoring.
05	<code>list_meters</code>	Retrieves an exhaustive inventory of all monitored utility meters available in the cloud system.
06	<code>list_statements</code>	Generates a list containing metadata for every collected utility bill, helping you audit your statement history.

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# See It in Action

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

- U** List all utility accounts for the campus, including water, electric, and gas.



## Campus Utility Inventory

*Total Accounts Found: 32*

*Providers Represented: Electric, Water, Gas, Waste*

The system found a comprehensive list of active accounts across various service types. Here's a sample:

ACCOUNT ID	SERVICE TYPE	PROVIDER	STATUS
acc_1001	Electric	ConEdison	Active
acc_2055	Water	CityFlow	Active
acc_3112	Gas	UtilityGas	Inactive

You can now pull specific billing statements for any of these IDs.

- U** What was the total water usage last quarter?



## Consumption Report: Water

I pulled the most recent data from your main campus meter (met\_4567).

*Reporting Period: 2024-03-01 to 2024-03-31*

*Total Usage Recorded: **18,900 gallons***

*Daily Average: 626.6 gallons*

This usage data is pulled directly from the meter and gives you a precise picture of resource consumption.

**U** Show me billing details for account acc\_9988.



#### Statement Details: Account acc\_9988

The latest statement was issued on **Jan 15, 2024**, covering the period 12/01/2023 to 12/31/2023.

*Total Charges:* \$312.50

*Breakdown:*

- Usage Fees: \$280.00

- Regulatory Surcharge: \$32.50

The data is accurate and complete, sourced directly from the utility cloud.

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## Frequently Asked Questions

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### 01 How can Arcadia Utility Cloud help me audit my company's entire property billing?

It lets you pull structured records for every single account in your portfolio. Instead of manual PDF review, you get clean data pulled using `list_statements` and `get_statement`, making compliance checks fast and accurate.

### 02 Does Arcadia Utility Cloud track usage across different types of utilities?

Yes, it handles electric, gas, water, and waste providers. You can gather consumption metrics for specific meters using `get_meter_data`, giving you a full picture of resource use.

### 03 Can I find out which utility accounts I have across multiple locations?

You can run `list_accounts` to generate an exhaustive inventory of every connected service. This helps you quickly identify if any properties are missing billing coverage or need new meters tracked.

### 04 What is the best way to track consumption trends over time with this MCP?

You use `get_meter_data`, specifying a meter ID and date range. This pulls usage metrics that let you graph historical data and spot patterns or anomalies quickly.







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# Go Live in 60 Seconds

Get your connection token from [cloud.vinkius.com](https://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
 <b>Claude AI</b>	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 <b>Cursor</b>	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 <b>VS Code</b>	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"arcadia-utility-cloud": { "url": "..." }</code>
 <b>Windsurf</b>	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 <b>ChatGPT</b>	Settings → Tools & plugins → Add MCP server → Paste endpoint
 <b>Gemini</b>	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

# Arcadia Utility Cloud 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](https://cloud.vinkius.com) →

[vinkius.com](https://vinkius.com) · [support@vinkius.com](mailto:support@vinkius.com)

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### DOCUMENT INFORMATION

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