MCP SERVER | NO CODE | CLOUD HOSTED

Bundle vs Individual Comparator MCP for AI Agents

Optimizing E-commerce Pricing and Coupon Stacking Discounts

Bundle vs Individual Comparator quickly determines if buying items as a set offers better savings than applying unique coupons to every single item. This tool calculates unified bundle discounts and compares those totals against individual coupon stacks (fixed or percentage) to find your maximum discount value.

A+ Quality Score 100/100

pricing | discounts | coupons | savings | bundle

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vinkius.com/mcp/bundle-vs-individual-comparator

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.

Bundle vs Individual Comparator MCP

3 tools available
Cloud-hosted on Vinkius

Need to know the real best deal? This MCP helps you compare two pricing strategies: buying multiple items in a discounted bundle, or stacking separate coupons for each item. You simply feed it your product list and all your available discounts. The system first calculates the total cost if everything is bought as one unit using `calculate_bundle_cost`. Then, it figures out what the price would be if you applied individual coupon arrays—supporting both fixed dollar amounts and percentage reductions—using `calculate_individual_total`. Finally, it runs a comparison through `compare_pricing_strategies`, giving you the exact difference in cents. It's simple math that saves time and money, allowing your AI client to immediately tell you which strategy delivers the most savings.

Core Capabilities

01 — Calculate total cost of items as a group

Determines the single price for multiple products when they are purchased together as a discount bundle.

02 — Determine costs using individual coupons

Calculates the final price for multiple items by applying separate, stackable percentage or fixed-amount coupons to each one.

03 — Compare two pricing totals

Compares a calculated bundle cost against an individually couponed total and reports the precise difference in savings.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/bundle-vs-individual-comparator** — connect your AI agent in three steps.

01 Provide the list of items, their base prices, and whether they are part of a fixed-discount bundle.

02 Input all applicable individual coupons for each item, specifying if the coupon is a percentage or a flat amount.

03 Run the comparison function to receive a clear report showing which pricing method saves more money.

The bottom line is, you stop guessing about discounts and get an exact figure on where your best savings are hiding.

Built For

E-commerce managers, retail operations staff, and financial analysts use this MCP when they need to optimize pricing for sales promotions. They struggle with the complexity of comparing multi-layered discounts quickly.

E-commerce Manager

Needs to set up seasonal sales campaigns that maximize revenue by accurately advising whether a bundle discount or individual couponing is superior.

Retail Operations Analyst

Analyzes promotional data, ensuring that the advertised 'best deal' for customers is mathematically correct before it goes live on the site.

What Changes When You Connect

01 You stop estimating discounts. Using `calculate_bundle_cost` provides the true total price when items are sold as a unit, removing guesswork from your promotions.

02 The system handles complex coupons. With `calculate_individual_total`, you can stack multiple fixed and percentage discounts onto separate products in one go.

03 You instantly find maximum savings. The `compare_pricing_strategies` tool gives an immediate comparison, showing the precise difference in cents between bundling and individual couponing.

04 It saves planning time. Instead of running manual spreadsheets for every promotion, your agent performs the full cost analysis instantly.

05 It ensures accuracy. By calculating discounts down to the cent, you eliminate costly pricing errors that could undermine a sales campaign.

Real-World Applications

Determining the best holiday sale strategy

A marketing team needs to run a flash sale on 10 related products. They ask their agent: 'Should we offer a single $50 bundle discount, or should I apply individual coupons across all ten items?' The agent uses `calculate_bundle_cost` and `calculate_individual_total`, then uses `compare_pricing_strategies` to recommend the maximum savings strategy.

Optimizing multi-tier discounts

A retailer sells electronics that qualify for both bulk pricing (bundle) and specific manufacturer coupons. The agent uses `calculate_bundle_cost` to get the group rate, then feeds in individual coupon arrays via `calculate_individual_total`. It runs a comparison to ensure no discount is missed.

Validating new promotional pricing

A product manager adds a coupon for 20% off Item A and $10 fixed discount on Item B. They want to know if this is better than grouping both items into a 'starter kit' bundle. The agent calculates the individual total, compares it against the calculated bundle cost, and flags which promotion saves more.

Patterns to Avoid

Assuming discounts stack simply

✗ AVOID

A user manually calculates the total by subtracting all listed coupon values from the item sum, ignoring percentage vs. fixed mode.

✓ INSTEAD

Don't guess. Use `calculate_individual_total` to correctly apply complex coupon arrays (percentage and fixed modes) before running `compare_pricing_strategies`.

Ignoring bundle discounts

✗ AVOID

The team only calculates the individual price for each item, missing out on a deep, unified discount offered when buying the items together.

✓ INSTEAD

Always start by running `calculate_bundle_cost` first. This establishes the baseline against which all other coupon strategies must compete.

Mixing up calculation types

✗ AVOID

Trying to apply a percentage discount (20%) on top of a fixed dollar discount ($10 off) without clear sequencing.

✓ INSTEAD

Use the dedicated tools. `calculate_individual_total` manages these mixed coupon arrays, ensuring the system applies them in the correct order to get an accurate cost.

The Right Fit

You need this MCP if your pricing strategy involves choosing between a single, unified discount (the bundle) and multiple, individual coupons. Use it when you must know the precise financial difference in savings—down to the cent. Don't use it if your only goal is to calculate a simple sum or apply one single coupon; those basic calculations are easier elsewhere. You must use this MCP when comparing two distinct pricing models: the combined bundle rate versus the total of individually discounted items. If you only need to check one method, you can skip the comparison tool and just run `calculate_bundle_cost` or `calculate_individual_total`, but for a real decision, you need all three tools working together.

Bundle vs Individual Comparator: Mastering Coupon Stacking in E-commerce

In standard e-commerce workflows, pricing validation is a manual nightmare. You pull up the bundle page and calculate one discount; then you jump to the individual item pages and start stacking coupons—sometimes percentages, sometimes fixed amounts. This copy/paste process takes minutes and invites human error, making it hard to definitively prove which promotion saves the customer (and the business) more.

With this MCP, your agent handles the entire financial model in seconds. It calculates the unified bundle cost and simultaneously figures out the total from individual coupon stacks. You get a single comparison report that tells you exactly where the optimal savings lie.

Bundle vs Individual Comparator: Optimizing Promotional Discounting

The specific manual steps that vanish are the constant cross-checking between different discount types. You no longer need to manually calculate if a 15% coupon applied first, or if a $20 fixed coupon applies after the percentage deduction. The system handles this complex logic for you.

Now, running a full promotional analysis is as simple as asking your agent a question. It moves pricing validation from a multi-hour spreadsheet exercise to an instant comparison.

Bundle vs Individual Comparator: 3 Tools for Coupon Stacking Analysis

Use these tools to calculate costs from both unified bundles and stacked individual coupons, finding your maximum possible discount in one place.

#	TOOL	DESCRIPTION
01	`calculate_individual_total`	Calculates the final total price of items after applying various stackable coupons, supporting both fixed and percentage discounts.
02	`compare_pricing_strategies`	Compares the cost derived from a bulk bundle discount against the cost calculated using individual coupon arrays to find the exact savings difference in cents.
03	`calculate_bundle_cost`	Determines the total final price of multiple items when they are purchased together under one unified group discount.

See It in Action

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

U If I sell Item X at $100 and Item Y at $200, what's the best deal: a 30% bundle discount or individual coupons?

Discount Analysis Report

- **Bundle Cost (30% Off):** $490.00
- **Individual Coupon Total:** $450.00

* Item X: $80.00 (20% off)
* Item Y: $170.00 ($10 fixed discount)

- **Conclusion:** The individual coupon stack saves you **$40.00** compared to the bundle.

U Calculate the total cost for three items using a mixed set of coupons (fixed and percentage).

Total Cost Calculation: Individual Coupons

ITEM	BASE PRICE	COUPON APPLIED	FINAL DISCOUNTED PRICE
A	$50.00	15% Off	**$42.50**
B	$150.00	$20 Fixed	**$130.00**
C	$80.00	None	**$80.00**

Grand Total: $252.50

U Compare a bundle sale of three items (totaling 750 cents) against the individual coupon total I just calculated (800 cents).

💰 **Savings Comparison** 💰

- Bundle Price: **750 cents**
- Individual Total: **800 cents**

The bundle discount saves you exactly **50 cents**. This is the best option.

Frequently Asked Questions

01 **How does the Bundle vs Individual Comparator help me choose between group discounts and coupons?**

It immediately tells you which pricing structure saves more money. You provide all your prices and discount rules, and the tool runs a full comparison to give you the mathematically proven best deal.

02 **Can I use this MCP if my coupons are mixed percentages and fixed amounts?**

Yes. The system is built to handle complex coupon arrays. It applies both percentage deductions and flat dollar amount discounts accurately, so you don't have to worry about the order of operations.

03 **Is this MCP better than just using a spreadsheet for pricing analysis?**

It's faster and less error-prone. With the Bundle vs Individual Comparator, your agent does the complex calculations in real time, eliminating manual copy-pasting and calculation mistakes common with spreadsheets.

04 **What if I only want to know the cost of the bundle without coupons?**

You can use the `calculate_bundle_cost` tool alone. It gives you a clear total price based solely on the group discount, which is perfect for simple promotions.

05 **Does this MCP work with multiple products and discounts at once?**

Absolutely. It's designed to handle bulk data. You can input dozens of items and various coupons, letting the tool process everything simultaneously for a comprehensive analysis.

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 `"bundle-vs-individual-comparator": { "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

Bundle vs Individual Comparator 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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