

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

# Estimate Scope Reconciliation MCP

Catch budget drifts and scope changes before they hit your bottom line.

Estimate Scope Reconciliation MCP helps construction and engineering managers spot the gap between original project baselines and new estimates. It identifies missing parts, quantifies cost changes, and builds verification checklists for stakeholders so you don't miss a single delta in your project scope.

**A+** Quality Score 100/100

scope-management

budget-tracking

risk-mitigation

engineering

estimation



# 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.

# Estimate Scope Reconciliation MCP

4 tools available

Cloud-hosted on Vinkius

Managing large scale engineering or construction projects means dealing with constant revisions. When a project estimate changes, it's easy to miss a small component addition or a slight shift in work description that eventually turns into a massive budget overrun. This MCP acts as a second set of eyes for your agent, comparing your initial project baseline against any new revisions you receive.

You can use it to pinpoint exactly where a scope has drifted, whether that's in the physical parts list or the total cost. Instead of manually hunting through spreadsheets to find what changed, your AI client can run a comparison and tell you exactly what's new or missing. It's built to handle the heavy lifting of reconciliation, giving you the data you need to justify changes to stakeholders or catch errors before they become expensive field problems.

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## Core Capabilities

### 01 — Scope Drift Detection

Your agent uses this to find the delta between original plans and new revisions.

### 02 — Financial Variance Analysis

The AI calculates the exact dollar impact of proposed changes.

### 03 — Component Reconciliation

Your agent checks for missing or extra parts in the project list.

### 04 — Stakeholder Verification

The tool generates specific questions to help you get formal approvals.

# One Click on Vinkius — From Prompt to Execution

Available at [vinkius.com/en/ai-agent-connect/estimate-scope-reconciliation](https://vinkius.com/en/ai-agent-connect/estimate-scope-reconciliation) — connect your AI agent in three steps.

- 01 Connect your AI client to the Vinkius hosted MCP.
- 02 Provide your agent with the original baseline and the revised estimate data.
- 03 Ask your agent to run specific tools like `analyze_scope_drift` or `reconcile_parts_discrepancies`.
- 04 Review the quantified cost impacts and generated checklists produced by the agent.

Connect the MCP to your preferred client and start auditing project data immediately.

## Built For

This MCP is designed for professionals managing complex technical projects where budget and scope accuracy is critical.

### Construction Project Managers

They use the agent to audit revised estimates against original contracts.

### Engineering Leads

They rely on it to ensure part lists and technical scopes remain consistent.

### Cost Estimators

They use the tools to quantify the financial impact of scope changes.

## What Changes When You Connect

- 01 Reduces budget risk by catching unapproved scope changes.
- 02 Speeds up the reconciliation process between project versions.
- 03 Provides structured questions for stakeholder sign-offs.

04 Identifies missing physical components in revised estimates.

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## Real-World Applications

### Change Order Auditing

Compare a new change order against the original project baseline to see exactly what is being added.

### Budget Variance Tracking

Quantify how much a proposed revision will increase the total project cost.

### Inventory and Parts Verification

Check if a revised estimate includes all the necessary components compared to the first version.

### Stakeholder Communication

Generate a checklist of questions to present to clients when a scope change is requested.

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## Patterns to Avoid

### Manual spreadsheet comparisons

#### ❌ AVOID

You spend three hours manually checking a new PDF estimate against an old Excel sheet to find missing bolts.

#### ✓ INSTEAD

Let your agent run ``reconcile_parts_discrepancies`` to instantly flag every missing or extra component between the two versions.

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### Vague change order approvals

#### ❌ AVOID

You send a client a generic email asking if they approve the new project costs without explaining why.

#### ✓ INSTEAD

Use ``generate_approval_checklist`` to create a specific list of questions that addresses the exact changes your agent identified.

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### Ignoring small cost shifts

#### ❌ AVOID

You assume a slight increase in material costs won't matter until the end of the quarter.

#### ✓ INSTEAD

Run ``evaluate_cost_impact`` immediately when a revision arrives to see the exact dollar impact on your total budget.

## The Right Fit

Connect this MCP if you manage large scale engineering or construction projects where scope creep is a constant threat. Do not use it if your projects are small, static, or have zero budget volatility. The decision rests on whether you need to justify every single dollar and part change to stakeholders.

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# Estimate Scope Reconciliation: 4 Precision Tools

These tools handle the heavy lifting of comparing project baselines against new revisions to catch budget and part list errors.

| #  | TOOL                          | DESCRIPTION                                                                                           |
|----|-------------------------------|-------------------------------------------------------------------------------------------------------|
| 01 | analyze_scope_drift           | This tool finds the specific differences between your original project baseline and a new revision.   |
| 02 | evaluate_cost_impact          | Use this to calculate the exact financial consequences of any proposed changes to the project.        |
| 03 | generate_approval_checklist   | This tool builds a list of targeted questions for stakeholders based on the changes your agent found. |
| 04 | reconcile_parts_discrepancies | This tool identifies any missing or extra physical components between two versions of a project.      |

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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** Compare these two project estimates for scope drift.



The analysis detected a cost increase in the foundation work and two new parts added to the revised estimate.

**U** Calculate the cost impact of a 15% budget increase.



The total variance is \$15,000, representing a 15% increase, which is classified as Medium severity.

**U** Check for discrepancies in the parts list.



The reconciliation found 2 missing parts from the baseline and 1 part with a quantity increase.

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## Frequently Asked Questions

### 01 What industries is this MCP for?

It is built specifically for construction and engineering project management.

### 02 How does it help with budget risks?

It identifies cost variances and scope drifts between original baselines and new estimates so you can catch overruns early.

### 03 Can I use this with Claude or Cursor?

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

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**04 Does it check physical parts lists?**

Yes, the `reconcile_parts_discrepancies` tool identifies missing or extra components between project versions.

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**05 How do I get approval for changes?**

You can use the `generate_approval_checklist` tool to create specific questions for your stakeholders based on the detected changes.

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**06 How does the tool detect scope changes?**

The `analyze_scope_drift` tool compares the original work descriptions and costs against the revised versions to flag additions, removals, or increased complexity.

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**07 Can I use this to find missing materials?**

Yes, the `reconcile_parts_discrepancies` tool specifically identifies missing, added, or quantity-varied parts between two project versions.

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**08 What is the purpose of the approval checklist?**

The `generate_approval_checklist` tool creates targeted questions for decision-makers to ensure they acknowledge cost and schedule impacts before approving changes.

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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>"estimate-scope-reconciliation": { "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

# Estimate Scope Reconciliation is live on Vinkius Cloud.

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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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