MCP SERVER | NO CODE | CLOUD HOSTED

Set-List Planner MCP

Build the perfect energy curve for any live show.

Set-List Planner optimizes live music performances by structuring your setlist based on energy dynamics and musical theory. Use this MCP to build a performance arc that builds tension, hits powerful climaxes, and accounts for vocal stamina. It analyzes key changes, tempo shifts, and overall song flow, ensuring your show feels engineered rather than just random tracks played back-to-back.

A+ Quality Score 100/100

musician | setlist | live-performance | energy-curve | music-theory

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vinkius.com/mcp/set-list-planner

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.

Set-List Planner MCP

3 tools available
Cloud-hosted on Vinkius

Building a great live setlist is an art form; it's about managing energy. This MCP helps musicians do exactly that by mapping out the emotional curve of their performance. Instead of simply dumping songs onto a tracklist, you can structure your entire show to start strong, dip into a necessary mid-set pocket, and build toward a massive climax. You get deep analysis on how key changes or tempo jumps might sound—whether they'll feel jarring or totally natural. Furthermore, it helps you pull out crucial preparation details, like identifying the most common key in your repertoire so you can plan specific warm-ups. Because this is hosted in the Vinkius catalog, you connect once to get access to this specialized music tool and thousands of others for all your creative projects.

Core Capabilities

01 — Structure Energy Flow

It reorders a list of tracks into an ideal performance sequence designed to build tension and hit emotional peaks.

02 — Check Musical Jumps

It evaluates the technical smoothness between songs, flagging potential issues with key or tempo shifts that might sound awkward live.

03 — Identify Prep Data

It pulls out useful performance metadata from your existing setlist, like primary warm-up keys and strategic break points.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/set-list-planner** — connect your AI agent in three steps.

01 Input your song list data, making sure to include key information like BPM, tempo changes, and designated energy levels.

02 Tell the MCP what kind of performance arc you are aiming for (e.g., 'high-energy finale' or 'moody opener').

03 The system processes the data, returning a reordered sequence with detailed feedback on musical compatibility and performance structure.

The bottom line is that you get an expert second opinion on your setlist's architecture, turning raw tracks into a cohesive show plan.

Built For

Any professional musician or band manager who gets frustrated trying to manually balance their live performance. This MCP helps you move past the headache of just listing songs and start planning actual emotional journeys for your audience.

Working Musician

Using the tool to structure a new setlist, making sure the energy curve builds correctly from the first song through the encore.

Band Manager

Pre-vetting an entire tour's worth of material to ensure key changes are manageable and that vocal stamina is accounted for across multiple shows.

What Changes When You Connect

01 The `optimize_set_sequence` tool reorders your songs automatically, ensuring the setlist builds proper emotional tension instead of just listing tracks.

02 Avoid awkward stops or sudden shifts. Use `analyze_transition_smoothness` to predict if a tempo jump between two specific songs will sound jarring live.

03 Plan your vocals smarter. The MCP uses `extract_performance_metadata` to pinpoint the most frequent key in your list, helping you plan targeted warm-ups.

04 Stop guessing about flow. By analyzing transitions, you gain concrete data on musical compatibility that goes beyond simple genre matching.

05 Gain a clear view of your performance structure. You get an engineered setlist ready for any venue or audience type.

Real-World Applications

Structuring the climactic encore

A band manager needs to finish a high-energy show with maximum impact. They feed their top 10 songs into the MCP and use `optimize_set_sequence` to ensure the final three tracks build to an undeniable, powerful peak.

Fixing a tonally awkward transition

A musician knows two songs work well but suspects the shift between them is too sudden. They run `analyze_transition_smoothness` on the pair and get immediate confirmation that the key distance needs to be bridged.

Prepping for a new tour's vocal demands

A singer-songwriter collects all their potential material. They run `extract_performance_metadata` across the whole collection and discover that G Major is the dominant key, allowing them to focus their warm-ups correctly.

Balancing a sprawling 90-minute set

The band needs balance. They submit all material to `optimize_set_sequence` and receive a structured arc that balances high-energy numbers with necessary, moodier mid-tempo breaks.

Patterns to Avoid

Treating the setlist like an inventory

✗ AVOID

Simply listing songs in chronological order or by genre. This results in a flat energy curve where nothing really builds to anything.

✓ INSTEAD

Use `optimize_set_sequence` to let the MCP reorder your material based on building emotional and musical tension, creating a true arc.

Assuming key compatibility

✗ AVOID

Jumping from a C Major song directly into an F# Major song without realizing the jump is too far for the vocalist or band to manage smoothly.

✓ INSTEAD

Before finalizing, run `analyze_transition_smoothness` on the specific pair of songs. It will flag large key or tempo gaps.

Ignoring preparation details

✗ AVOID

Showing up at a gig and realizing that three-quarters of your material is in keys you haven't warmed up for, leading to poor vocal performance.

✓ INSTEAD

Run `extract_performance_metadata` first. It identifies the most common key so you can structure your warm-up routine correctly.

The Right Fit

Use this MCP if your primary goal is architectural planning—you need to make sure the *flow* and *feel* of the show are optimized, not just that the songs are ready. Specifically, use it when you suspect a problem with energy building or key changes between tracks. Don't use it if all you need is basic data storage (use a simple database connector) or if you only need to manage lyrics/titles without considering musical theory. If you simply want to sort your songs alphabetically, this MCP isn't necessary; stick to a standard list manager tool instead.

The headache of manually structuring a live show

Today, building a setlist means juggling multiple spreadsheets and theory books. You write down Song A, then realize Song B is in a key that clashes with the last two chords of A. Then you check tempo shifts; they're too big. It’s endless copy-pasting between music theory sites and your tracklist manager, all while trying to remember if you want the energy arc to peak early or save it for the encore.

With this MCP, that research is done in seconds. You upload your raw material, give the planner a goal—say, 'powerful climax'—and the system handles the complex musical math. It gives you back a fully structured sequence ready for performance.

Getting an expert energy arc using optimize_set_sequence

Manual arrangement requires hours of cross-referencing BPMs, keys, and perceived intensity. You spend time tweaking transitions just to make them sound right on paper, without knowing if it will work live.

This MCP handles that complexity for you. It delivers a proven sequence that doesn't just list songs; it builds an emotional story the audience can feel.

Set-List Planner: 3 Tools

These tools let you analyze musical shifts, pull preparation data, and reorder your tracks into a professional, high-impact setlist.

#	TOOL	DESCRIPTION
01	`analyze_transition_smoothness`	Checks if the musical shift between two songs will be jarring or feel natural to an audience.
02	`extract_performance_metadata`	Gathers useful preparation details from your setlist, such as the most common key for vocal warm-ups.
03	`optimize_set_sequence`	Rearranges all of your songs into a performance order built around an optimal energy arc.

See It in Action

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

U I have a list of 5 songs. Can you optimize the sequence for a standard energy arc?

Please provide the JSON array of songs including their BPM, key, duration, and energy level so I can run `optimize_set_sequence` for you.

U Are the transitions between these songs smooth: Song A (C Major, 120 BPM) and Song B (F# Major, 140 BPM)?

No, that transition is likely to be 'Jarring' due to the large distance on the Circle of Fifths and the significant jump in tempo.

U What is the most frequent key in my set list?

The `extract_performance_metadata` tool identifies G Major as your primary warmup key, meaning most of your songs are in that key.

Frequently Asked Questions

01 **How does Set-List Planner optimize_set_sequence?**

The MCP analyzes your entire song library to reorder tracks, ensuring a natural energy curve. It balances high and low intensity songs across the set for maximum impact.

02 **Can I use analyze_transition_smoothness for non-musical shifts?**

No. This MCP is specialized in music theory. `analyze_transition_smoothness` focuses purely on tempo, key, and scale compatibility between songs.

03 **What kind of data does extract_performance_metadata pull out?**

`extract_performance_metadata` pulls preparation details like the most frequent key in your setlist. This helps you focus your vocal warm-up routine effectively.

04 **Does Set-List Planner work with different genres of music?**

Yes, as long as you provide the technical metadata (BPM, Key, etc.), this MCP structures setlists regardless of genre. It focuses on musical physics, not style.

05 **Do I need to manually adjust the data before using optimize_set_sequence?**

It's best practice to ensure your songs have accurate metadata (BPM, Key, Energy Level) so that `optimize_set_sequence` can build the most precise arc.

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 `"set-list-planner": { "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

Set-List Planner 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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