

MCP SERVER

NO CODE

CLOUD HOSTED

# Hreflang Generator MCP

Automate perfect multi-country SEO indexing.

Hreflang Generator handles international SEO complexity by generating and validating required hreflang tags and XML sitemaps. This MCP ensures search engines correctly understand your site's regional structure, guaranteeing perfect indexing across multiple languages and regions. It automates the tedious process of auditing link reciprocity and setting x-default fallback URLs for massive multi-market websites.

**A+** Quality Score 100/100

hreflang

sitemap

seo-tools

internationalization

html-generation



# The infrastructure that powers AI agents in the real world.



Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

# Your AI Connections Run Through Vinkius Cloud

The world's largest  
managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect 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.

# Hreflang Generator MCP

3 tools available

Cloud-hosted on Vinkius

Running a website in several countries or speaking different languages means you have to manage dozens of specific SEO rules just to keep Google happy. The Hreflang Generator handles this mess. It takes your list of regional URLs, determines the correct language codes, and builds all the necessary HTML tags and sitemap entries so search engines know exactly which version of your content belongs where. You won't have to manually check every link or worry about broken reciprocity anymore. By using this MCP through Vinkius, you get instant compliance checks on existing sites and perfect snippets for your upcoming XML maps. It's the single place you need to validate and build out multi-regional SEO structures.

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## Core Capabilities

### 01 — Audit hreflang implementation

Check an entire set of URLs against best practices to find missing language pairings or broken link logic.

### 03 — Build XML sitemap entries

Produce structured XML snippets that include full alternate language links, perfect for submitting to search engine consoles.

### 02 — Create HTML tags

Generate the specific ``<link>`` code required for every page, ensuring proper hreflang declarations are in place.

# One Click on Vinkius — From Prompt to Execution

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

- 01** You provide the MCP with a list of your regional URLs and define which version should be treated as the site's default.
- 02** The MCP runs an audit or generation process, analyzing your inputs to build perfect link structures and validate reciprocity across all provided links.
- 03** It gives you ready-to-copy code blocks, either full HTML tags for injection into pages or structured XML snippets for inclusion in your sitemap.

The bottom line is that instead of guessing at complex SEO markup, you get validated, error-free code ready to paste directly into your web build.

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## Built For

Any company running a website in more than one language or country needs this. This MCP is crucial for the technical SEO specialist who spends hours checking Google Search Console for reciprocity errors, or the digital marketing manager who launched a new regional site and can't tell if their foundational SEO structure is correct.

### Technical SEO Specialist

Uses this to audit massive clusters of content, ensuring that every international subdirectory has perfectly balanced hreflang tags and sitemaps before crawl budget issues start.

### Web Developer

Integrates the generated HTML or XML snippets into a global site template with confidence, knowing the structure is SEO compliant from the start.

### Digital Marketing Director

Uses this to validate new market rollouts quickly, confirming that search engines will treat French content as distinct from English content without needing manual checks across multiple tools.

## What Changes When You Connect

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- 01** Eliminate manual link audits. Use `validate_hreflang_integrity` to check large URL sets quickly, finding broken reciprocity or missing default links that would otherwise cost you ranking authority.

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  - 02** Save time on code generation. Instead of writing complex `<link>` tags by hand, the MCP generates all necessary HTML for hreflang implementation instantly using `generate_html_tags`.

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  - 03** Keep sitemaps clean and compliant. Use `generate_sitemap_entries` to create perfectly structured XML snippets that search engines expect for international content mapping.

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  - 04** Guarantee regional separation. This tool ensures that Google treats your German site as separate from your French site, preventing indexing confusion and distributing link equity correctly.

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  - 05** Speed up global launches. Before rolling out a new market (e.g., Brazil), you can run the validation tools to confirm all SEO prerequisites are met in minutes.
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## Real-World Applications

### The regional expansion launch

A marketing team needs to roll out a product site into Spain and Italy. Instead of having developers manually check every link on the Spanish version against the Italian version, they run the MCP's validation tool. It confirms that all necessary hreflang tags are present and that the 'x-default' fallback is correctly configured for both markets.

### The sitemap overhaul

A developer updates a major site structure, changing how their regional URLs map. They use the MCP to generate new XML entries for their sitemap. This ensures that when they submit the updated file, search engines get clean, accurate alternate language links immediately.

### The content migration cleanup

A company acquires a smaller competitor site and needs to merge its multilingual structure into their main platform. They use the MCP's validation tool to audit the existing pages against best practices, pinpointing every instance of broken language pairings before any live code deployment.

### The missing default page issue

A team notices that search engines aren't recognizing their main English site as the primary fallback. They use the MCP to generate the correct HTML tags, explicitly designating the desired URL as 'x-default', solving an otherwise invisible SEO gap.

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## Patterns to Avoid

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### Hardcoding hreflang logic

#### ✗ AVOID

The developer manually adds `<link rel="alternate" href="..." />` tags to every single page, increasing the chance of typos or forgetting a language.

#### ✓ INSTEAD

Let the MCP handle it. Use `generate_html_tags`. You provide the list of URLs and languages, and the MCP writes the perfect code for you.

### Assuming sitemap structure

#### ✗ AVOID

The team just lumps all regional links into one massive XML file without proper language tagging.

#### ✓ INSTEAD

Always use `generate_sitemap_entries`. This tool builds structured XML that explicitly includes alternate language tags, giving search engines the context they need.

### Skipping audit steps

#### ✗ AVOID

The site goes live with new content, but nobody checks if old links or deleted pages left behind dangling hreflang references.

#### ✓ INSTEAD

Run `validate_hreflang_integrity`. This tool audits your entire implementation, finding broken link patterns and compliance gaps before they hurt your rankings.

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## The Right Fit

Use this MCP if your website operates in two or more distinct languages (e.g., English and Spanish) *or* targets multiple geographic markets that require specific regional versioning (e.g., US vs. UK). You need to manage content reciprocity, which means ensuring every page knows about all its language siblings. Don't use this if you run a single-language site or a very small brochure website with minimal link complexity; those sites generally don't need the

overhead of full hreflang validation. If your primary pain point is simply generating basic XML sitemaps without internationalization, consider a standard content publishing tool instead, but for any serious global SEO effort, this MCP is essential.

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## Managing International Links Is a Nightmare

When you run a website across multiple languages or regions, every single page needs to know about its siblings. Manually checking if the French version links correctly to the English version, and vice versa, is tedious. You're copying lists of URLs into spreadsheets, cross-referencing language codes against Google's requirements, and then trying to make sure your developers don't miss one tag on a high-traffic page.

With this MCP, you define your entire regional cluster once. The tool handles the complex logic needed for perfect link reciprocity, generating all required HTML tags or XML snippets in minutes. You get clean, validated code ready to deploy, drastically cutting down manual review time.

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## Hreflang Generator: Perfect Code Snippets

The process of auditing your current setup used to involve running multiple external checks and then manually compiling a list of required fixes. You'd spend hours piecing together the correct format for sitemaps, often introducing errors in the language codes or default URLs.

Now, you simply use

```
validate_hreflang_integrity
```

. It executes an audit against your live structure and reports compliance issues immediately. The result is actionable code—you don't just get a warning; you get the fix.

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# Hreflang Generator with 3 Tools

This set of tools lets you generate, audit, and fix complex international SEO markup. You get perfect compliance code every time.

#	TOOL	DESCRIPTION
01	<code>generate_html_tags</code>	Generates HTML <link> tags for hreflang implementation
02	<code>generate_sitemap_entries</code>	Generates XML snippet entries for an SEO sitemap
03	<code>validate_hreflang_integrity</code>	Performs an audit of hreflang implementation

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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** Generate HTML tags for these URLs: <https://mysite.com/en>, <https://mysite.com/es>, with <https://mysite.com/en> as x-default.



```
<link rel="alternate" hreflang="en" href="https://mysite.com/en" />
<link rel="alternate" hreflang="es" href="https://mysite.com/es" />
<link rel="alternate" hreflang="x-default" href="https://mysite.com/en" />
```

- U** Check if this URL set is valid: [{targetUrl: 'https://site.com/us', languageCode: 'en', regionCode: 'US'}, {targetUrl: 'https://site.com/uk', languageCode: 'en', regionCode: 'GB'}], default: 'https://site.com/us'



```
{"isCompliant": true, "missingXDefault": [], "brokenReciprocity": [], "languageGaps": []}
```

- U** Create sitemap entries for <https://mysite.com/fr> and <https://mysite.com/en>, using <https://mysite.com/en> as x-default.



```
<url><loc>https://mysite.com/fr</loc><xhtml:link rel="alternate" hreflang="en"
href="https://mysite.com/en"/><xhtml:link rel="alternate" hreflang="x-default"
href="https://mysite.com/en"/></url>
<url><loc>https://mysite.com/en</loc><xhtml:link rel="alternate" hreflang="fr"
href="https://mysite.com/fr"/><xhtml:link rel="alternate" hreflang="x-default"
href="https://mysite.com/en"/></url>
```

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# Frequently Asked Questions

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**01 How does Hreflang Generator help with XML sitemaps?**

It generates structured XML snippets for your sitemap, ensuring that every entry includes alternate language tags. This keeps search engines from treating regional versions as separate silos.

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**02 Can I use the Hreflang Generator if my site only has two languages?**

Yes, it works for any number of languages. Just provide your primary URLs and language codes; the MCP handles the necessary link logic automatically.

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**03 Is the validation tool reliable? Does Hreflang Generator guarantee compliance?**

The `validate_hreflang_integrity` tool checks against known SEO best practices for reciprocity and language gaps. While it doesn't replace human review, it automates 90% of the tedious checking process.

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**04 What if I update my website structure? Do I need to use Hreflang Generator again?**

Absolutely. Any structural change, especially adding a new language or changing a URL path, requires re-running the generator tools to ensure your sitemaps and tags are current.

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**05 Does Hreflang Generator only work for HTML tags?**

No. It provides both HTML tag generation using `generate_html_tags` and structured XML entries through `generate_sitemap_entries`.







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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>"hreflang-generator": { "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

# Hreflang Generator 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

Generated	June 2026
MCP Server	Hreflang Generator MCP
Server ID	019f02c6-5219-70c3-b4aa-b3cc9037d9a0
Platform	Vinkius Cloud for AI Agents
Endpoint	<a href="https://edge.vinkius.com/{token}/mcp">https://edge.vinkius.com/{token}/mcp</a>

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