MCP SERVER | NO CODE | CLOUD HOSTED

Baidu Map Web Service API MCP for AI Agents

Plan Optimal Routes and Find Locations Across China's Cities

The Baidu Map Web Service API MCP provides access to China's leading mapping infrastructure. Your AI client can instantly handle complex location tasks, including converting addresses to precise coordinates, planning driving or transit routes, locating businesses by IP address, and finding Points of Interest across Chinese cities.

A+ Quality Score 98.33/100

lbs | routing | poi-search | geocoding | mapping | location-services

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vinkius.com/mcp/baidu-map-web-service-api

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.

Baidu Map Web Service API MCP

10 tools available
Cloud-hosted on Vinkius

This connector lets your agent perform deep geographic searches using Baidu Map, China's dominant mapping service. Instead of navigating a technical portal full of forms and required parameters, you just ask your AI client what you need. It handles the complexity behind the scenes—whether it's calculating optimal transit routes between two points or pinpointing coordinates from a physical address.

Need to know where local businesses are clustered? You can search for specific types of Points of Interest (POIs) in any area, and even audit local commercial zones. If you're running logistics operations, your agent can verify addresses instantly by converting text into exact latitude/longitude points. This capability turns complex mapping work into a simple conversation.

It all works through Vinkius, the #1 MCP Catalog. You connect once to your preferred AI client and get access to this powerful spatial data source for market research or planning across China.

Core Capabilities

01 — Calculate multi-modal travel routes

Gets detailed directions for driving, public transit, walking, and riding between any two points in Chinese cities.

02 — Convert addresses to coordinates

Converts physical street addresses into precise latitude and longitude pairs, or vice versa.

03 — Find local businesses and POIs

Searches for specific types of locations, like hotels or restaurants, within defined areas or around given coordinates.

04 — Analyze business zones

Provides detailed information about the nature and layout of local commercial districts in China.

05 — Determine location via IP address

Guesses a user's general geographic location based only on their IP address.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/baidu-map-web-service-api** — connect your AI agent in three steps.

01 Subscribe to this MCP and provide your Baidu Map Access Key (AK) and optional Secret Key (SK).

02 Connect the MCP to your AI client, like Cursor or Claude.

03 Ask your agent a natural language question, such as 'What is the best transit route from A to B?' and let it use the available tools.

The bottom line is, you tell your AI what location data you need, and it uses Baidu Map's full set of APIs behind the scenes to get the answer.

Built For

Anyone who works with geography or logistics in China needs this. If your job involves planning routes, verifying addresses for delivery, or conducting market research on local businesses, you're spending too much time clicking through mapping websites.

Logistics Coordinator

Uses the MCP to verify multiple client addresses and plan optimal multi-stop routes before sending out delivery teams.

Market Researcher

Asks the agent to analyze POI density within a specific commercial zone to determine local market saturation for a new product.

Travel Planner

Coordinates complex, multi-stage itineraries by comparing walking, transit, and driving routes between various tourist sites.

What Changes When You Connect

01 Verify addresses instantly: Use `geocoding` to convert any written address into exact coordinates, eliminating guesswork in logistics planning.

02 Compare travel options easily: Calculate optimal routes using different modes—you can compare driving directions (`direction_driving`) with public transit routes (`direction_transit`) side-by-side.

03 Deep market insights: The `get_business_area` tool lets you analyze the commercial layout of a whole neighborhood, not just one spot. This is crucial for market research.

04 Comprehensive search: Don't just rely on coordinates. Use `poi_search` to find specific amenities like hotels or restaurants near any given point.

05 Global reach in China: Access reliable spatial data across Chinese cities that other mapping tools struggle with, ensuring your plans are accurate where it matters most.

Real-World Applications

Optimizing a multi-stop delivery route

A logistics manager needs to optimize 15 stops in Beijing. Instead of manually plotting the points, they ask their agent to run multiple `direction_driving` and `geocoding` calls to calculate the shortest path while minimizing time spent between addresses.

Assessing a new retail location

A market researcher wants to know if a commercial area is viable. They use `get_business_area` and then run `poi_search` for competing businesses (e.g., coffee shops) within a 500-meter radius.

Coordinating complex international travel

A planner needs to build an itinerary connecting a train station, a hotel, and a client office. The agent uses `direction_transit` for the subway leg and then `direction_walking` for the final approach.

Investigating user data location

A compliance officer needs to know the general region of several users based on their IP addresses. They use `ip_location` to quickly audit regional targeting without needing physical addresses.

Patterns to Avoid

Trying to plan routes manually

✗ AVOID

Copying street names and coordinates into a traditional mapping website, which forces you to calculate each leg of the journey separately and often fails with complex public transit connections.

✓ INSTEAD

Let your agent handle it. Simply ask for directions using `direction_transit` or combine multiple routes by asking for 'a full itinerary' in one go.

Ignoring local business context

✗ AVOID

Searching only for a single address without understanding the surrounding area, leading to poor market assumptions. For example, assuming an empty lot is viable when it’s next to industrial zones.

✓ INSTEAD

Always use `get_business_area` first. This gives you the context—is this zone residential? commercial? light industry?—before planning anything.

Using only address search

✗ AVOID

Only relying on simple geocoding to get a point, then having no idea what's actually nearby. You get coordinates, but zero context about local amenities.

✓ INSTEAD

Always follow up with `poi_search` using the resulting coordinates to find nearby services like restaurants or hospitals.

The Right Fit

Use this MCP if your project requires precise, actionable location intelligence within China. If you need to calculate multiple travel modes (driving, subway, walking) for a single trip, this is your tool. Use it when you must verify addresses or analyze the density of local services.

Don't use it if all you need is general world mapping data outside of mainland China, or if you only require basic map visualization without any calculation capabilities. For simple, singular lookups that don't involve routing or complex POI searches, other dedicated geo-APIs might suffice—but for deep operational intelligence, stick with this MCP.

Baidu Map Web Service API: Solving Complex Location Data in China

Right now, planning anything location-based in Chinese cities is a manual nightmare. You jump between different mapping websites—one for driving routes, another for public transit schedules, and yet another to find nearby hotels. You're constantly copying coordinates from one tab into the next, trying to stitch together a coherent trip plan or delivery route.

With this MCP, you ask your agent once: 'Plan the best way to get from the airport to my hotel.' It uses multiple tools like `direction_transit` and `geocoding` simultaneously. You don't see API calls; you just get the final, optimized answer.

Baidu Map Web Service API: Analyzing Local Commerce with Geospatial Data

Manual market research requires physically visiting sites or using generic tools that only provide a basic map view. You miss the crucial context: Is this area primarily residential? What kind of businesses are clustered here, and how dense is the local commerce?

This MCP changes that by letting you run `get_business_area` on demand. It doesn't just show a dot on a map; it tells you what's happening in that zone. You get actionable intelligence about the market structure instantly.

Baidu Map Web Service API: 10 Tools for Location Search and Routing

Use these tools within your agent to convert addresses to coordinates, plan routes using any mode of transport, or search for specific Points of Interest across China.

#	TOOL	DESCRIPTION
01	direction_driving	Calculates turn-by-turn instructions for travel by car.
02	direction_riding	Calculates directions using two wheels, like a motorcycle or scooter.
03	direction_transit	Provides step-by-step instructions for public transportation, including bus and subway transfers.
04	direction_walking	Generates an optimal pedestrian path between two points.
05	geocoding	Converts a written address into precise latitude and longitude coordinates.
06	get_business_area	Retrieves detailed data about the commercial characteristics of a specific neighborhood or business zone.
07	get_suggestion	Offers suggested points of interest based on user input or current location context.
08	ip_location	Guesses the general geographic coordinates associated with a given IP address.
09	poi_search	Searches for specific types of points of interest, like hotels or restaurants, near a location.
10	reverse_geocoding	Takes coordinates and finds the nearest readable street address.

See It in Action

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

U What are the best directions from Beijing West Railway Station to a high-end restaurant district?

Transit Plan: Beijing West Station $\rightarrow$ Xicheng District

- **Mode:** Subway/Metro (Recommended)
- **Time Estimate:** 45 minutes (including wait time)
- **Route Details:** Take Line 10 from Exit A to the Guomao station stop. From there, it's a quick 8-minute walk via the main street.

Would you like me to search for specific POIs near that final location?

U I need coordinates and suggestions of hotels near Shanghai's Pudong airport.

Location Search Results: Near PVG Airport

- **Geocodes:** 31.1928, 121.7765 (Approximate Center)
- **Nearby POI Suggestions:**

* The Mandarin Oriental (Hotel)
* Airport Shuttle Bus Stop
* Local Business Park A

We found several options; let me know if you want contact details for any of these.

U Plan a driving route from Tsinghua to Peking University, avoiding major tolls.

🚗 **Driving Route Plan (Tsinghua $\rightarrow$ PKU)**

- **Distance:** 3.8 km
- **Estimated Time:** 12 minutes (low traffic)
- **Key Directions:** Follow Chengfu Road initially, then take the side streets to avoid major toll roads. The route is primarily along local thoroughfares.

I can also check if there are any construction zones reported on this route.

Frequently Asked Questions

01 **How does using the Baidu Map Web Service API MCP help with complex logistics planning?**

It lets your agent calculate and compare multiple routes—driving, transit, walking—in one go. You don't have to switch between apps; you just ask for the most efficient path across China.

02 **Can I use the Baidu Map Web Service API MCP to research local business areas?**

Yes. Beyond just finding a single point, you can run an analysis of an entire commercial district using the `get_business_area` tool. This gives you deep context about the area's economic makeup.

03 **What if I only have coordinates and need to find out what street address that is?**

You use reverse geocoding. The MCP takes those raw latitude/longitude numbers and converts them into a readable, usable street address for you. It's the perfect way to validate data.

04 **Does the Baidu Map Web Service API MCP handle public transportation routes?**

Absolutely. It provides detailed directions using `direction_transit`, handling transfers between subways, buses, and other forms of mass transit across Chinese cities.

05 **Is this good for market research in China?**

It's excellent. You can combine finding nearby points of interest with analyzing the business area to build a comprehensive picture of local commercial viability, making your research much more accurate.

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 `"baidu-map-web-service-api": { "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

Baidu Map Web Service API 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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