MCP SERVER | NO CODE | CLOUD HOSTED

Meshy (3D AI) MCP

Generate game-ready assets from text or images.

Meshy (3D AI) connects generative artificial intelligence directly to your agent, turning simple text prompts or reference images into professional-grade, textured 3D meshes. Generate full assets, refine topology, and create animations—all without leaving your development environment. It bridges the gap between a concept sketch and a game-ready model.

A+ Quality Score 100/100

3d-modeling | generative-ai | text-to-3d | pbr-textures | mesh-generation | asset-creation

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

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.

Meshy (3D AI) MCP

17 tools available
Cloud-hosted on Vinkius

Meshy brings high-quality 3D asset creation into your AI workflow. You no longer have to switch between dozens of specialized software programs just to get started on a new piece of concept art or geometry. Instead, you describe what you need—whether that's 'a rusted cyberpunk motorcycle' or 'three reference photos of a medieval shield'—and Meshy handles the heavy lifting. It generates initial 3D previews from text and builds detailed models from multiple images, automatically applying PBR maps so they look realistic right out of the gate. If you need to adjust the geometry for a game engine, you can run remeshing tools to fix the topology or apply new styles using retexturing techniques while keeping the original shape. Need to manage your work? You track all generation tasks in one spot. Integrating this MCP via Vinkius means you connect once from any AI client and immediately gain access to professional-grade 3D visualization capabilities, speeding up everything from prototyping game assets to visualizing architectural concepts.

Core Capabilities

01 — Generate 3D models from text

Input a descriptive prompt to generate an initial 3D preview mesh.

02 — Model objects from images

Upload single or multiple reference photos and convert them into structured, detailed 3D geometry.

03 — Adjust model topology

Run remeshing tools to change the triangle structure of a mesh, targeting specific polycounts for various applications.

04 — Change materials and styles

Apply new textures or entire visual styles to an existing 3D model using text or image guidance without losing its core shape.

05 — Create animations

Generate sequential frames for a 3D object, turning static geometry into movement.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/meshy-3d-ai** — connect your AI agent in three steps.

01 Subscribe to this MCP and provide your Meshy API Key.

02 Call the relevant tool using your AI agent (e.g., 'create_image_to_3d') within your preferred client.

03 Receive a task ID for the generation, which you then use to check on progress or refine the final asset.

The bottom line is, Meshy automates the complex initial stages of 3D asset pipelines so your agent can handle it conversationally.

Built For

This MCP is essential for game developers needing rapid prototypes and 3D artists stuck in tedious manual modeling loops. If you're a creative agency constantly visualizing concepts from vague ideas, this tool saves dozens of hours.

Game Developer

Generates base meshes and textures for rapid prototyping directly within the development agent to test gameplay mechanics faster.

3D Artist / Modeler

Automates initial block-outs, UV mapping, or complex texturing processes that typically involve hours of manual cleanup in dedicated software.

Creative Agency Lead

Quickly visualizes 3D concepts for clients starting only from a written description or a few rough reference sketches.

What Changes When You Connect

01 Speed up prototyping. Instead of spending hours on initial block-outs, you can use `create_text_to_3d_preview` to generate a basic mesh in minutes, letting your agent test the concept immediately.

02 Overcome source material limitations. If you only have photos, don't worry about perfect angles; simply run `create_multi_image_to_3d` to build a full 3D object from multiple references.

03 Fix technical assets on the fly. Need a model with cleaner geometry for a game engine? Use the `create_remesh` tool to adjust the topology and hit your target polycount without starting over.

04 Maintain integrity while styling. You can radically change a model's look—say, from stone to chrome—using `create_retexture`, but the underlying structure remains intact.

05 Streamline complex animation. Generating movement used to require multiple artists; now you can use `create_animation` to bring static geometry to life through your agent.

Real-World Applications

Conceptualizing a New Game Prop

A game developer needs a 'glowing crystal shard.' Instead of sketching it and modeling it, they ask their agent to use `create_text_to_3d_preview`. The resulting mesh is fast enough for immediate gameplay testing. They then run `create_retexture` to give it the specific glowing effect needed.

Turning Product Photos into Assets

A design team has 4 photos of a futuristic piece of furniture from different angles. They use their agent with `create_multi_image_to_3d` to generate a full, usable 3D model that they can then export for client visualization.

Preparing Art for Physical Prints

An artist designs an intricate mask. Before sending it to the printer, they run `analyze_printability` and use `repair_printability`. The agent flags structural weak points and fixes them, ensuring a successful physical print.

Improving Character Models

A character model was generated but has messy geometry. The 3D artist uses the agent to run `create_remesh` on the problematic area, adjusting the topology so it's clean enough for rigging and animation.

Patterns to Avoid

Assuming perfect input

✗ AVOID

Trying to model a complex object using only one or two reference photos in traditional 3D software, which often leads to guesswork about unseen angles.

✓ INSTEAD

Use the `create_multi_image_to_3d` tool. This lets your agent build a complete mesh from multiple angle references, eliminating the need for manual guesswork.

Ignoring technical fixes

✗ AVOID

Exporting a model that looks fine but has poor topology (too many triangles in one spot) and crashing it when importing into an engine.

✓ INSTEAD

After generation, always run the `create_remesh` tool. This adjusts the internal geometry to create clean, usable polygon counts for game engines.

Manual style changes

✗ AVOID

Having to painstakingly re-UV map and repaint a model in external software every time you want to change its material or color palette.

✓ INSTEAD

Simply use the `create_retexture` tool. It applies entirely new styles using text prompts while preserving the original object's geometry.

The Right Fit

Use this MCP if your primary bottleneck is generating high-quality initial 3D assets or fixing technical mesh data. If you need to convert a concept (text) or source material (image) into usable, textured 3D geometry, this is the right tool. However, don't use it if your goal is hyper-specific engineering work, like creating CAD drawings for manufacturing, or complex rigging that requires manual joint placement. For those tasks, you still need specialized professional modeling software. This MCP excels at the generative and preparatory steps of a 3D pipeline; think of it as the AI power layer sitting *on top* of your core development tools.

The pain of starting a new 3D asset project

Today, getting started is painful. You have an idea—maybe it's a unique weapon or a strange alien creature. The manual process means gathering reference images, finding the right modeling software, and spending hours doing initial block-outs just to get clean geometry. Then you deal with texture mapping, making sure the UV coordinates line up, all before you even start adding detail.

With this MCP, that whole phase shrinks down to a prompt. Your agent handles the technical overhead: taking your text or images and generating a preliminary, textured 3D mesh in minutes. You get a functional asset ready for refinement, not just raw data.

Meshy (3D AI) delivers fully functional assets.

The tedious steps of initial block-out and basic texturing vanish. You use tools like `create_text_to_3d_preview` to get a mesh, and then run `create_retexture` or even `create_rigging` to make it useful immediately. The process shifts from 'build' to 'refine.'

The result is an AI-generated asset that’s not just concept art; it’s geometry you can actually use in a game engine, ready for the next stage of development.

Meshy (3D AI) with 17 Tools

These tools let you manage the entire 3D asset pipeline, from initial generation using text or images to final technical fixes like remeshing and animation.

#	TOOL	DESCRIPTION
01	`create_text_to_image`	Generates a 2D image based on a text prompt.
02	`delete_text_to_3d_task`	Removes an existing Text to 3D generation task by its ID.
03	`get_balance`	Retrieves the current account balance for usage tracking.
04	`get_text_to_3d_task`	Fetches the status and details of a specific Text to 3D task using its unique ID.
05	`list_text_to_3d_tasks`	Retrieves a list of all past or current Text to 3D generation tasks.
06	`repair_printability`	Analyzes and repairs a model mesh, making it suitable for physical 3D printing processes.
07	`analyze_printability`	Checks the current status of a 3D model to determine if it can be successfully printed.
08	`create_animation`	Generates an animation sequence for a given 3D asset.
09	`create_image_to_3d`	Turns one or more reference images into a detailed, structured 3D object.
10	`create_image_to_image`	Transforms an input image while maintaining its structure and composition.
11	`create_multi_color_print`	Prepares a model for printing that requires multiple distinct colors.
12	`create_multi_image_to_3d`	Builds a 3D model using several reference images, such as views from different angles.
13	`create_remesh`	Adjusts the internal geometry (topology) of an existing mesh to fit new requirements.
14	`create_retexture`	Applies entirely new materials or styles to a 3D model using text or image guidance.
15	`create_rigging`	Creates the necessary skeletal structure for a character or object so it can be posed and animated.

#	TOOL	DESCRIPTION
16	create_text_to_3d_preview	Initiates the first step of generating an initial 3D model from a text description.
17	create_text_to_3d_refine	Refines and improves the geometry and details of a preliminary 3D preview mesh.

See It in Action

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

U Create a 3D preview of a futuristic cyberpunk motorcycle.

I've initiated the `create_text_to_3d_preview` task for your cyberpunk motorcycle. The task ID is 'msy_abc123'. I'll let you know as soon as the preview mesh is ready.

U Generate a 3D model from this image: https://example.com/character.png

Starting the `create_image_to_3d` process. I'm uploading the reference image to Meshy's AI to generate the geometry and textures. This usually takes a few minutes.

U List my recent 3D generation tasks.

Fetching your history via `list_text_to_3d_tasks`... I found 3 recent models: a 'Sci-fi Crate' (Succeeded), a 'Stone Arch' (Succeeded), and a 'Dragon' (In Progress).

Frequently Asked Questions

01 **How do I start generating 3D models with Meshy (3D AI)?**

You first initiate a preview using `create_text_to_3d_preview`. This generates the basic mesh, and you can then use `create_text_to_3d_refine` to improve it further.

02 **Can Meshy (3D AI) create models from pictures?**

Yes. You have two main options: use `create_image_to_3d` for a single reference photo, or use `create_multi_image_to_3d` if you have several photos taken from different angles.

03 **What is the difference between Meshy (3D AI) and standard 3D software?**

Standard software requires manual input for every step. This MCP automates that initial pipeline, allowing your agent to handle complex tasks like remeshing or rigging with a single tool call.

04 **Does Meshy (3D AI) help with animation?**

Yes, you can use the `create_animation` tool. This generates sequential frames for your 3D asset, turning static geometry into movement.

05 **How do I make my model ready for printing using Meshy (3D AI)?**

You first run `analyze_printability` to check the mesh. If issues are found, use `repair_printability` to fix it before proceeding with multi-color printing via `create_multi_color_print`.

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 `"meshy-3d-ai": { "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

Meshy (3D AI) 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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