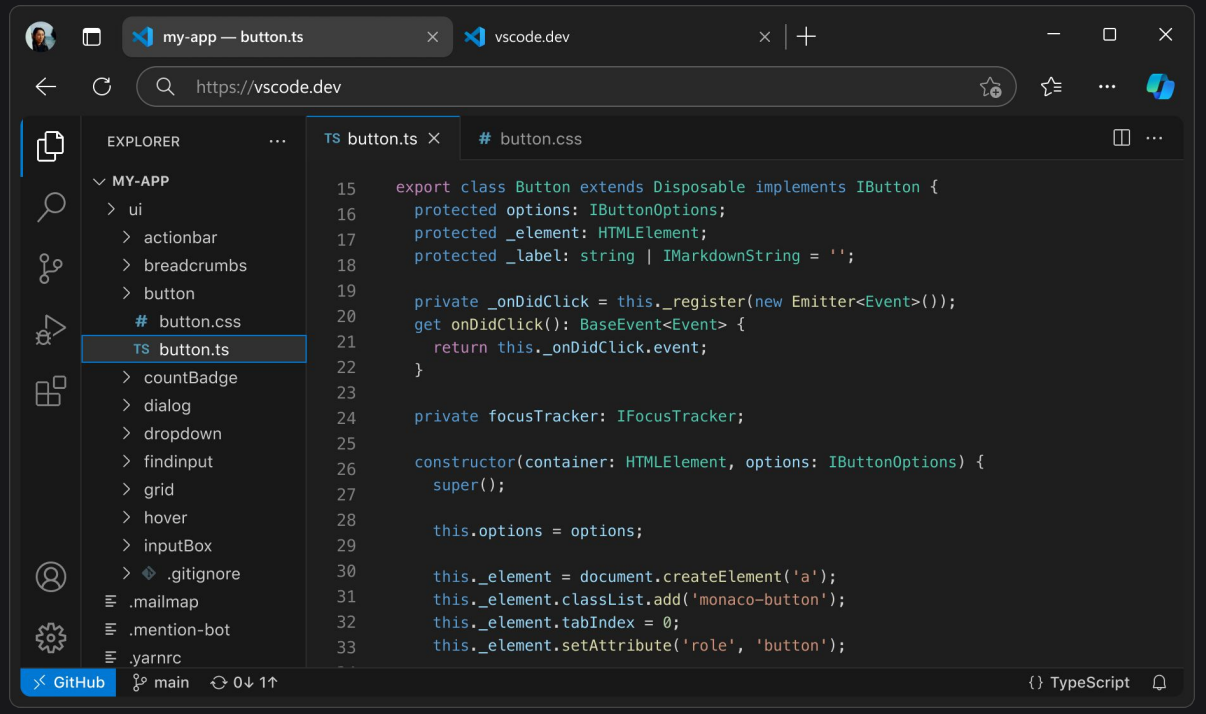
Open Source Agentic CLI Interfaces

Defining the Paradigm

⌨ The "Writer" Model

Legacy IDEs

- **Action:** User types, AI suggests.
- **Scope:** Single file buffer.
- **Loop:** Human reads → Human types.

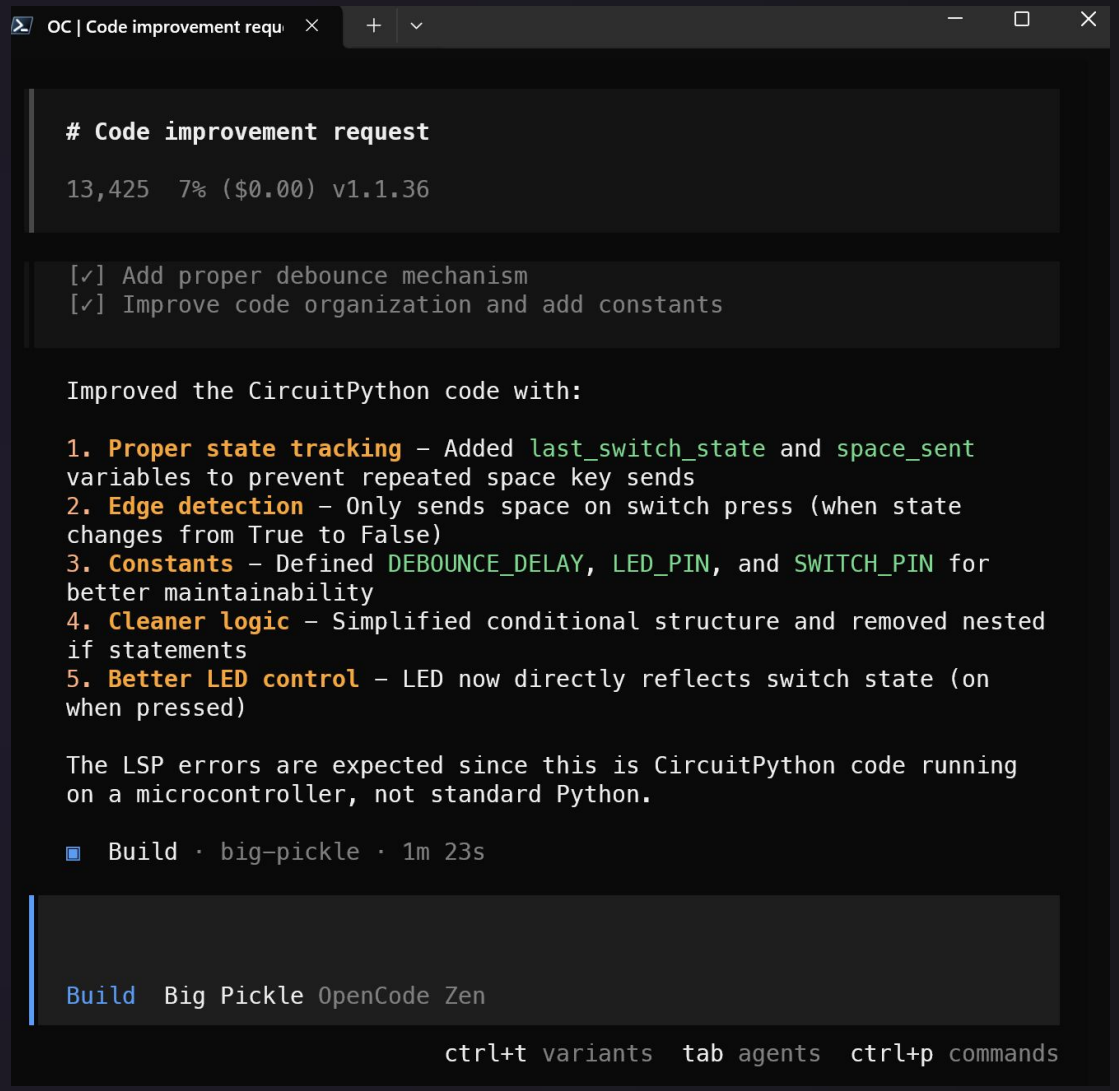


Defining the Paradigm

The "Architect" Model

Agentic CLIs

- **Action:** User Prompts, Agent Acts.
- **Scope:** Entire Repo & Terminal.
- **Loop:** Plan → Act → Verify.



The "Human-in-the-Loop" Workflow

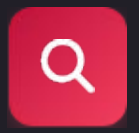
1. Define

You define the **Goal** using natural language, not the implementation code.

"Refactor the login module to use OAuth2."

2. Execute

Agent enters an **Autonomous Loop**: Reading files, running shell cmds, and self-correcting.



3. Review

You review the **Outcome** (diffs). You verify logic, not syntax.

Proprietary Constraints

Gemini CLI • Claude Code • Copilot

These tools utilize a "Black Box" architecture that introduces significant risks for engineering teams.

- **Model Lock-in:** Bound to a single provider's roadmap.
- **Data Egress:** Intellectual Property leaves your machine.
- **Opacity:** Logic and System Prompts are hidden.

OpenCode

Model-Agnostic, Open-Source

The Hybrid Stack

Decoupling the **Control Plane** (Logic) from the **Inference Plane** (LLM).

Application

OpenCode CLI

Runtime & Tool definitions

Local Inference

Ollama / vLLM

Llama, Mistral ...

Cloud Inference

API Gateway

Any provider

The Strategic Advantage

Future Proofing

New, better models are released weekly. **OpenCode** lets you swap the backend instantly—use GPT-5.2 today, Claude 5 tomorrow, or a local Llama model to save costs.

Rapid Evolution

Proprietary tools update on the vendor's schedule. Open source tools update at the speed of the community. New features and integrations are added by developers like you daily.

1. Local Execution (Ollama)

Why Local?

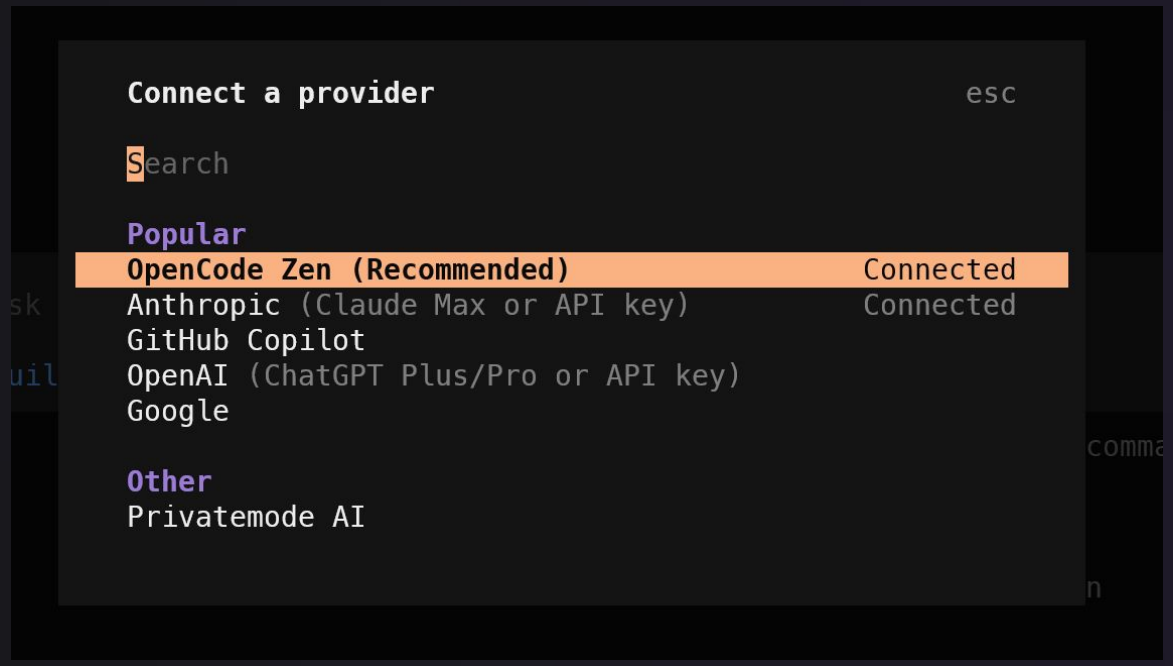
- **Sovereignty:** Code never leaves localhost. Mandatory for NDA/HIPAA.
- **Air-Gapped:** Functional without internet.
- **Latency:** No network RTT. Limited only by VRAM.

```
# 1. Switch backend to local
$opencode config --backend ollama

# 2. Load 4-bit Quantized Model
$opencode model set llama3:8b

# 3. Execute autonomously
$opencode "Refactor auth.py"
```

2. Direct API Integration



🔑 Bring Your Own Key (BYOK)

When you need SOTA reasoning power, swap the engine, keep the interface.

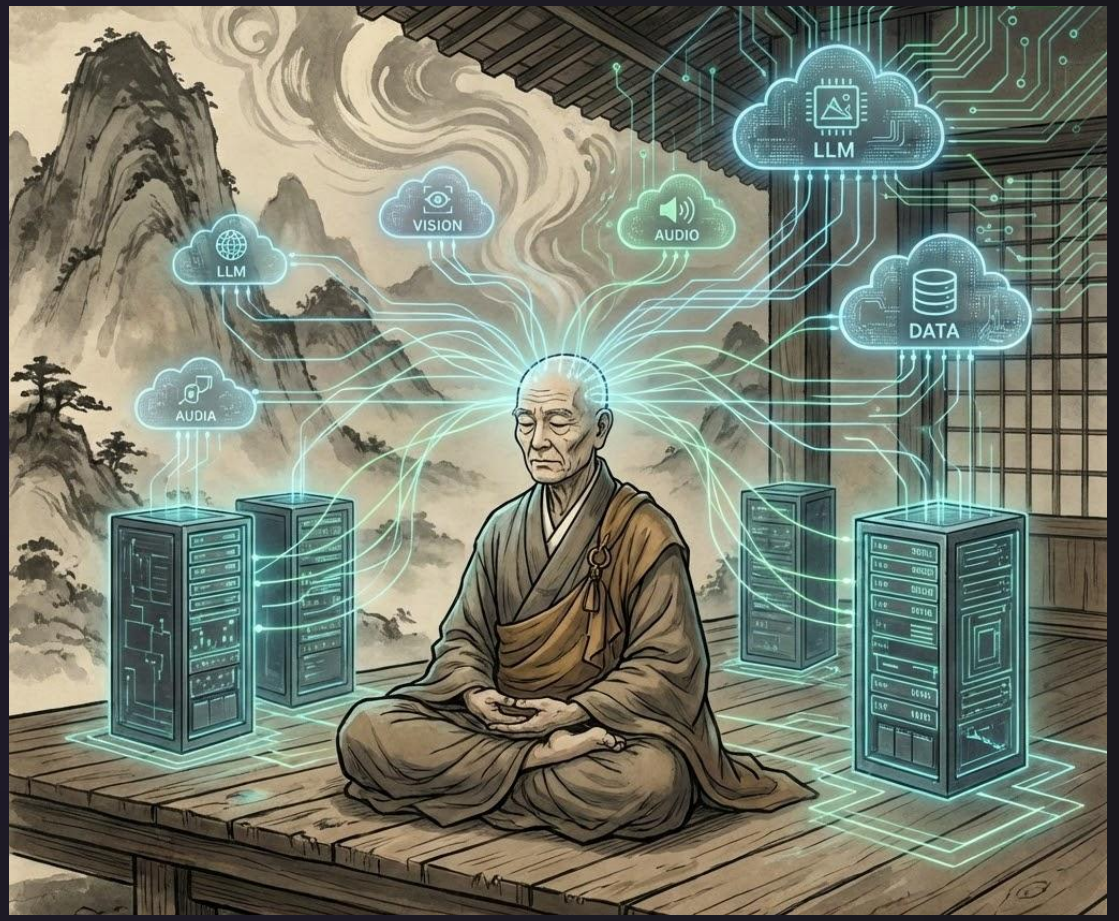
- **Multi-Provider:** Switch between tens of providers and their models.
- **Direct Billing:** Pay provider directly. No markup.

3. OpenCode ZEN Service

The Aggregation Layer

A unified gateway (similar to OpenRouter) for instant access to any model.

- **Single Billing:** One wallet for all vendors.
- **Usage-Based:** Pay per token. No monthly SaaS seats.
- **Sometimes free!** New models in testing are usually free during the testing period.



AGENTIC CLI COMPARISON: Proprietary vs. Open Source

FEATURE	PROPRIETARY AGENTIC CLIs (e.g., Claude Code)	OPEN SOURCE AGENTIC CLIs (e.g., OpenCode)
Control & Sovereignty	Vendor-Controlled, Black Box Execution 🔒	User-Controlled, Full Execution Visibility 🔓
Model Flexibility	Locked to Single Vendor Models 🔗	Agnostic, Swap Any Model (Local/Cloud) 🔀
Data Privacy	Data Egress to Vendor Cloud 🌩️	Private (Local) or Controlled Egress 🛡️🖥️
Cost Structure	Subscription / Bundled Pricing 🪙	Pay-per-Token (Direct) / Free (Local) 🏷️
Vendor Lock-in	High, Tied to Ecosystem Roadmap 🧱	None, Future-Proof Architecture 🚪🚪
Transparency	Opaque System Prompts & Logic 📔❓	Transparent, Open Logic & Prompts 📖🔍

Comparison based on general architectural differences.

The Future is Agnostic

"The most dangerous architectural decision is coupling your workflow to a single model provider."