# OpenTelemetry vs Alternatives — Clean Market Comparison (2025)

## Why OpenTelemetry Is the Best Fit

OpenTelemetry stands out because it gives you **one unified framework** for metrics, logs, and traces — the three foundational pillars of observability. Instead of stitching together different SDKs or tools, OpenTelemetry provides a single, standardized way for all your AI agents to emit telemetry. This makes onboarding new agents simple and keeps your system consistent. OpenTelemetry also supports "context propagation," meaning logs, metrics, and traces can all be correlated through shared IDs. This is especially important for your Agent Portal, where customers need to see *exactly what an AI agent did, how long it took, what steps it executed,* and whether anything went wrong.

Another major reason OpenTelemetry is ideal is that it's **vendor-neutral**. You can instrument your agents once, and then choose any backend — open-source or commercial — to store and visualize the data. If your clients want a self-hosted backend, you can support that. If they want a SaaS solution, you can support that too. This avoids vendor lock-in, keeps long-term costs under control, and ensures your platform can scale as your customer base grows.

OpenTelemetry also benefits from a massive open-source community and broad industry support. All major clouds and languages support it, and it's quickly becoming the default telemetry standard. It also includes automatic instrumentation for many frameworks and languages, so you can get baseline visibility with almost no manual coding. Finally, its performance overhead is comparable to — or lower than — legacy tracing tools when configured correctly. With sampling and intelligent filtering, you can manage telemetry volume to control cost without sacrificing data quality.

## Top Alternatives & How They Compare

## 1. SigNoz

SigNoz is an open-source, OpenTelemetry-native observability platform that offers metrics, logs, and traces in one product. It uses a highly optimized storage engine, making it efficient and cost-effective. Because it's self-hostable, you avoid the high costs of commercial SaaS tools, and you maintain full control of your data. This is ideal if 99x wants to bundle observability directly into the portal or provide on-prem installations for enterprise clients. The tradeoff is that a self-hosted stack requires engineering time to deploy and maintain, but the flexibility and long-term cost savings often outweigh that. For most Agent Portal deployments, SigNoz is the strongest balance between capability, cost, and control.

## 2. Grafana Stack (Prometheus + Loki + Tempo)

The Grafana ecosystem gives you extremely powerful observability tools, each specialized for one signal: Prometheus for metrics, Loki for logs, and Tempo for traces. With Grafana dashboards on top, you get rich visualizations and a lot of customization. This stack is popular in cloud-native environments and can scale impressively if engineered properly. The downside is complexity: you're running three to four separate systems, each with its own scaling characteristics. For internal engineering teams with strong DevOps skills, this is a great option. For a customer-facing portal like yours, it may be more operational overhead than necessary unless you standardize a reusable deployment pattern.

## 3. Datadog

Datadog is a polished, enterprise-grade SaaS observability platform. It provides excellent dashboards, correlation, anomaly detection, and integrations. It is extremely easy to set up — often just a few minutes to see traces, logs, and metrics. However, Datadog's pricing is notoriously complex and can become very expensive as telemetry volume grows. Logs, spans, and custom metrics each have separate cost models, and many companies report cost spikes. For 99x, Datadog could be offered as a premium-tier backend for customers who don't mind paying for convenience, but it may not be ideal as your default internal or bundled platform.

## 4. New Relic

New Relic offers full-stack observability similar to Datadog. It has strong APM features and supports OpenTelemetry ingestion. Its pricing model is more simplified than Datadog's, but still largely based on data volume and user seats. The user-seat component can become expensive if the portal is used by many customer stakeholders. New Relic is a reasonable choice if you want a managed platform without self-hosting, but its cost structure may not align well with a portal designed for granular per-agent observability.

## 5. Dynatrace

Dynatrace is an enterprise observability suite with strong automation and AI-powered root-cause analysis. It provides deep insights into infrastructure, applications, and user experience. Its hourly usage-based pricing is transparent and predictable, which some teams appreciate. However, Dynatrace is generally positioned at large enterprises with big budgets and complex environments. It may be overkill for standard AI automation observability needs, but excellent for large, high-scale customers. For 99x, this could be another premium-tier option for big clients.

## Which One Should 99x Choose?

Best Overall (for cost, flexibility, OTel-native design): ➡️ SigNoz

Best if you want full open-source control (and have DevOps muscle): ➡️ Grafana

Best premium enterprise SaaS option: ➡️ Datadog or Dynatrace

Best mid-tier SaaS option: ➡️ New Relic

## Final Recommendation for the 99x Agent Portal

Use **OpenTelemetry for all AI agent instrumentation**, then:

- **Default backend** → SigNoz (self-hosted or cloud)
- **Optional enterprise backends** → Datadog / Dynatrace
- **OSS power-user backend** → Grafana stack

This gives you maximum flexibility, scalability, and future-proofing — while keeping costs under control and preserving your “AI employee” observability model.