ORB

NS1.

Actionable edge observability

Orb is a free, open source tool for edge observability. Using a fleet of efficient agents, Orb uses dynamic policy orchestration to extract real-time insights from traffic streams at the edge. Those insights quickly turn into actions through integration with modern observability stacks. The result: faster time-to-action at a lower cost.

GO SMALL

Most observability platforms haven't adapted to the rise of edge computing.

They're still sending huge amounts of data into a central repository for batch analysis. This "big data" approach takes time, and you end up paying to ingest a whole lot of irrelevant data that can be difficult to parse. Retention periods are short, and graph load times are high.

Orb uses a "small data" approach to collect and analyze data right on the edge.

Lightweight Orb agents only collect the information you need using real-time policies you create, dramatically reducing collection cost. With analysis on the edge, you can respond immediately with more actionable data.

OPEN SOURCE, FLEXIBLE DEPLOYMENT OPTIONS

API-first platform with flexible integration options.

Orb's well-documented API is built to support automation. Orb natively supports Prometheus, with support for additional data sinks coming soon. View data locally at the edge in real time with the agent CLI, or globally with a standard dashboard tool like Grafana.

Easy orchestration.

Managing agents, agent groups, policies, and data sinks is easy with Orb's REST API and intuitive user interface.

INTEGRATE WITH YOUR EXISTING TECH STACK

Orb is a free, open source tool backed by NS1 Labs.

Developed as an in-house observability tool and deployed on NS1's own systems, Orb demonstrates NS1's commitment to open source as the leading edge of innovation.

Host Orb yourself or deploy with a SaaS offering.

Host Orb yourself by deploying it through any cloud-based Kubernetes service. You can also deploy it through the SaaS offering available on orb.live.

Use Cases

- Rapidly identify the root cause of network security and performance issues

- Analyze data on the network edge, reducing time to action

- Self-service network analytics for infrastructure as a service platforms

- Collect only the insights you need

- Use the modern observability stacks you already own

- Free, open source, no vendor lock-in

Features

Deployment options

Control Plane
- Self-hosted (Docker Compose or Kubernetes Helm Chart)
- SaaS through https://orb.live

Edge agents
- Docker container
- Static binary

Data sinking integrations
- Prometheus (remote write)
- OpenTelemetry based exporters (coming soon)

Agent functionality
- Use taps to abstract away node details like ethernet interface or sflow port
- Define tags (key/value pairs) to join dynamic Agent Groups
- Connect to control plane, synchronize collection policies
- Analyze using deep inspection and streaming algorithms
- Expose lightweight metrics for local edge use and central collection

Agent input sources
- Packet capture
- dnstap
- sFlow
- Envoy taps (coming soon)
- eBPF (coming soon)

Agent metrics
using pktvisor, a subsidiary open source tool
- DNS
- DHCP
- Network (L2/L3)
- Policy resource usage
- Expandable via custom loadable modules

Powered by NS1 Labs

Spurring innovation in the foundational technologies supporting the global internet

NS1 Research Labs focuses on finding innovative solutions to the challenges of modern internet application delivery. The team conducts research, develops technology, and advances industry knowledge through the sharing of information.

See What Else We're Working On →

About NS1

The internet and applications powering our world depend on NS1. Billions of people connect to work, school, entertainment, healthcare and stay informed because of the company's innovative technology. As an ally for innovators, NS1 helps our customers turbocharge their ideas in pursuit of building the better future through connecting applications and audiences at the distributed edge. NS1's application traffic intelligence and automation portfolio makes applications faster, reliable and secure everywhere. With technologies for cloud-native network services, edge to cloud networking, and application traffic optimization, NS1 helps eliminate the barriers between applications, users, infrastructure and data. NS1 has more than 725 customers across the globe such as Dropbox, Fox, Salesforce.com, LinkedIn, and Ebay.

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