NS1 Labs

An Update on Open Source Innovation at NS1 Labs

Exciting updates on how we're making dynamic edge observability a reality with Orb, pktvisor, and more

Posted by
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Earlier this year, **we announced** the creation of **NS1 Labs** - our team that is explicitly focused on innovation in foundational networking and application infrastructure technologies.

So what have we been up to at NS1 Labs over the past few months? In addition to building **NetBox Cloud** - a SaaS version of popular open source tool NetBox - the NS1 Labs team has been hard at work on making dynamic edge observability a reality through open source innovation and integrations with the NS1 platform. Keep reading to learn more about:

- The first release of **open source Orb**
- Progress on building a SaaS-delivered version of Orb
- Beta tests with pktvisor integrations with the NS1 platform

First Release of Open Source Orb

I'm excited to share that the first release of Orb, our open source observability platform, **has been released on Github**!

What is Orb?

Orb is a new **open source observability platform** that can be used to orchestrate network observability at the edge.

Orb builds upon **pktvisor**, our open source observability agent that we use to monitor the performance and health of our own infrastructure (keep scrolling to learn more about pktvisor).

With Orb, we add critical functionality beyond just collecting the extracted information centrally: we connect the edge agents (pktvisor) into a centralized control plane, which is able to communicate with the agents and to give them instructions in real time.

The idea is to be able to run an agent on edge locations and analyze the data as close to your data streams as possible. These edge agents will then connect into the control plane using IoT technology, allowing you to reprogram agents dynamically in real-time.

How Can I Test Out Orb?

You can learn more and test our first iteration of Orb out for yourself by visiting: **https://getorb.io/**

If you're interested in contributing to Orb and testing out the platform, please star us on Github and join our **NS1 Labs OSS Slack**.

What's Coming Next for Orb

So what's next for Orb? We'll continue to iterate and improve upon this first release, and look forward to hearing feedback from users like you and our community. We're also working on a free-forever community SaaS-delivered version of Orb for users who don't want to run their own control plane. Stay tuned for more on Orb and pktvisor early next year!

Get the Latest on Orb

Learn more about Orb by visiting our **Github page**, and stay up to date on the latest by signing up for alerts: **https://getorb.io/**

Sign Up Now

Updates on pktvisor, our Open Source Observability Agent

What is pktvisor?

NS1 has used pktvisor for the past seven years to monitor the performance and health of some of our most critical internet infrastructure. It was built to find the needles in the haystack of our gigantic stream of global DNS traffic - millions of queries per second - so we can respond to malicious activity like DDoS attacks on a second to second basis.

With pktvisor, analysis of these streams of data - specifically network traffic - is moved to the edge, allowing you to act in real-time on changing network conditions.

And Orb multiplies the power of pktvisor's edge observability by making it dynamic with a global orchestration layer that can adjust the observability strategy across a fleet of pktvisors, and collate the data from the fleet, on a second to second basis.

How Do I Download pktvisor?

Pktvisor is fully open sourced, and **available for download today on Github**.

As more of our customers build their own global edge footprints, we increasingly hear that they too are facing similar observability challenges - the same ones that led us to build pktvisor and Orb in the first place for our own use.

Either they are swamped with data that's too expensive to process to derive insights in time to take action, or they need to sample so aggressively they miss most of the key events they're seeking to observe in the first place.

To support them as they increasingly push to the distributed edge, we are exploring ways to more closely integrate pktvisor with our own platform and products.

Making Dynamic Edge Observability a Reality with Orb and pktvisor

In the next few years, applications will continue to drive innovation in foundational networking services. Audiences will become increasingly distributed and dynamic as devices, connectivity options, and mobility explode. And applications themselves will evolve to meet ever more stringent expectations from users, with global, highly dynamic footprints optimized to provide **predictably fast and secure application experiences**.

pktvisor and Orb are a key part of ensuring high application availability and performance for distributed users. They supplement modern observability stacks by facilitating edge network observability - with the ultimate goal to enable dynamic orchestration of business intelligence at the edge.

I'm excited about the work we've accomplished so far at NS1 Labs to accelerate the best new technologies and ideas that align to our mission to **connect applications and audiences at the edge**, and look forward to what's to come!

Further Reading

FEATURED

A Wave of Open Source Innovation at NS1 Labs

Solving challenges in modern application delivery through innovation in foundational technologies supporting the global internet

Read the Ebook ⊙

Extracting the Signal: Rethinking Network Observability

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