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G-Core Labs Uses Kentik Synthetics for Proactive Visibility Across All Networks

G·CORE LABS

CATEGORY

- Cloud and edge services provider

CHALLENGE

- Need to proactively and continuously monitor distributed infrastructure, including upstream, off-net operators to maintain best services for customers

- Existing synthetic monitoring tools required too much time to manage, lacked full coverage and increased infrastructure costs

SOLUTION

- Kentik Synthetics to monitor across its 100 PoPs and all upstream operators

RESULTS

- Continuous, proactive monitoring for fast, accurate visibility

- Reduced infrastructure costs

- Automation to save team's time

- Ability to upholds SLAs and maintain quality of service for customers

Overview

G-Core Labs is a global cloud and edge provider of leading content delivery, public cloud, hosting and security solutions. With an international customer base, the company built and manages network infrastructure worldwide. To proactively and continuously monitor the network it owns as well as the performance of its upstream, off-net operators and ensure the best services for its customers, G-Core Labs expanded its use of the Kentik platform to include Kentik Synthetics.

Situation

International brands like Avast, Michelin, SIBUR and Wargaming Group Limited (World of Tanks, World of Warships, World of Warplanes) rely on G-Core Labs. With customers across all industries, G-Core Labs' services include public cloud, managed hosting, a content delivery network (CDN), an advanced media platform for professional broadcasts and streaming of any complexity, as well as protection against DDoS attacks and malicious bots.

To offer these services, G-Core Labs built and operates its own global network infrastructure that spans all continents. The company has more than 100 points of presence (PoPs) located in Tier 3 and Tier 4 data centers in more than 65 cities around the world. G-Core Labs is also known for having the most reliable CDN performance in Europe and one of the top ten content delivery providers in the world, and the company's infrastructure has even been included in the Guinness Book of Records.

"With a distributed infrastructure on every continent, it is absolutely critical for us to have end-to-end, global network monitoring," said Oleg Yudin, head of network and cyber security at G-Core Labs. "We not only need to know what is happening across our own network, but we also need to be aware of incidents that occur outside of our network, for example, with our upstream operators."
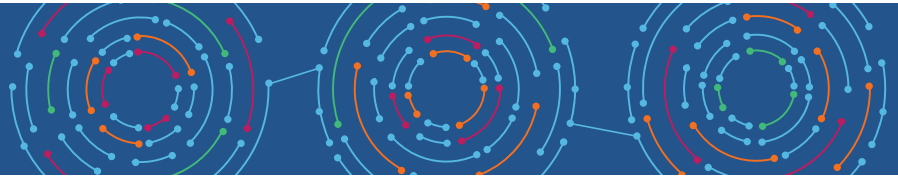
> With Kentik Synthetics, we have managed to do what we couldn't do with any other similar monitoring system.

Upstream operators for G-Core Labs include the networks of FTTB, B2B, mobile-end operators and all of the other networks that its traffic passes through before it reaches a customer. Therefore, without upstream visibility, G-Core Labs knew its customers could experience latency or other performance degradations before its own team was alerted to an issue.

"As a company invested in continuously improving the quality of our services, it's very important for us to be able to monitor the off-net segment of the network," said Yudin. By actively performing synthetic tests at regular intervals, Yudin knew his team could get a head start and detect and address problems proactively before impacting customers.

G-Core Labs tried three commercial synthetic monitoring tools. However, all three of the tools were unsuccessful in giving G-Core Labs the proactive, continuous, cost-effective, big-picture solution it needed. Specifically, these tools failed because they:

- Limited the number of tests that could be done;
- Provided only a small number of agents for testing traffic;
- Required too much time to manually configure and deploy new agents;
- Increased costs by requiring that infrastructure must have virtualization in order to deploy a new agent;
- Had weak coverage, which prevented G-Core Labs from being able to fully monitor availability at the operator, city and/or regional levels.

"Each of the synthetic monitoring tools we tried put a heavy load on our network and, as a single service, they only performed part of the solution to our network monitoring needs," added Yudin. "We knew we needed a simple solution for full-cycle monitoring based on NetFlow telemetry, and all in one system."

Solution

"We have been working with Kentik for more than three years, solving a variety of network observability needs from performance routing to protecting against DDoS attacks," said Yudin. "Kentik provides the main telemetry at an edge-core level for us, so when we learned about Kentik Synthetics from our customer success team, we were immediately interested."
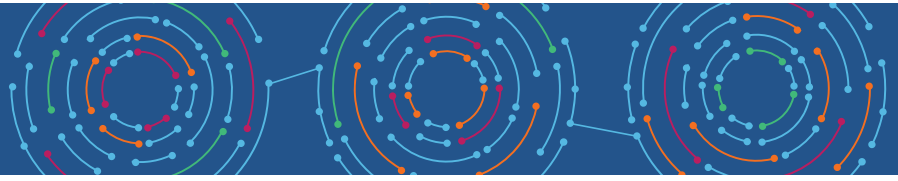
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> **Proactive monitoring from Kentik Synthetics helps us minimize the impact on our services and also gives us a complete picture of what may be happening outside of our network.**

> **With the other tools we tried, we were paying for something that couldn't do half of what Kentik Synthetics is able to do.**

G-Core Labs deployed Kentik Synthetics and quickly added synthetic monitoring capabilities with:

- **Mesh tests**: With this, G-Core Labs can monitor network metrics between all of its 100 PoPs.

- **ASN monitoring**: G-Core Labs can monitor the network metrics of its upstream operators.

- **Overall performance by country**: G-Core Labs can monitor network metrics for a particular region or country.

- **DNS performance tests**: G-Core Labs can monitor its DNS service.

Results

With Kentik Synthetics, G-Core Labs adds continuous, proactive monitoring and achieves fast, accurate visibility.

"With Kentik Synthetics, we have managed to do what we couldn't do with any other similar monitoring system," said Yudin. "We've been able to integrate agents directly into the operating system of our border routers. This approach allows us to organize monitoring directly from the router and measure anything from each router without distorting the real picture. This even includes point-to-point interfaces between G-Core Labs and our upstream customers, which is impossible to do with other synthetic monitoring solutions."

"Any network incident that happens with one of our transit providers could directly affect our customers, especially if we don't have a direct relationship with that operator, as we don't control that section of the network," said Yudin. "Proactive monitoring from Kentik Synthetics helps us minimize the impact on our services and also gives us a complete picture of what may be happening outside of our network. This approach can also help us to select the best communication service providers (Tier 1 ISPs) to work with."

With Kentik Synthetics, G-Core Labs reduces infrastructure costs.

"With the other tools we tried, we were paying for something that couldn't do half of what Kentik Synthetics is able to do," said Yudin.
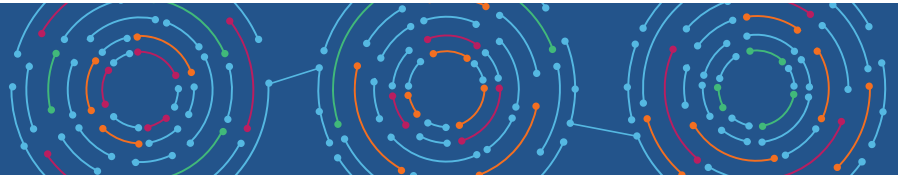
> "With Kentik Synthetics, we can be proactive in responding to alerts, which means that we're aware of the problem before customers start reporting it."

> "The Kentik team is always ready to enhance its platform and implement new features."

"Kentik Synthetics significantly reduces the cost of the infrastructure as a whole, since we don't need to do virtualization separately or install additional bare-metal servers to deploy monitoring agents. All we need is a network infrastructure that is the basis for our services," he added.

With Kentik Synthetics, G-Core Labs adds automation to save time on cumbersome tasks.

"With Kentik Synthetics, the deployment of agents is fully automated. This reduces the burden of operating the solution as a whole and allows our team to move quickly when we need to drill down into an issue," said Yudin.

G-Core Labs taps the Kentik Global Synthetic Network, which includes 200+ strategically positioned global agents in internet cities around the world and in every cloud region within AWS, Google Cloud, Microsoft Azure, and IBM Cloud. The team can also install its own private agents via common deployment packages, which are available for both x86 or ARM.

"Using other synthetic monitoring tools, deploying a new agent required emailing the vendor, and then we'd waste time negotiating with them," added Yudin. "Kentik Synthetic agents can be deployed in less than three minutes and it's all automated."

With Kentik Synthetics, G-Core Labs upholds SLAs and maintains quality of service for customers.

"With Kentik Synthetics, we can be proactive in responding to alerts, which means that we're aware of the problem before customers start reporting it," said Yudin. This provides an optimal way to meet service-level agreements (SLAs).

Key Takeaways

Unlike legacy synthetic monitoring tools, Kentik Synthetics allows G-Core Labs to continuously monitor performance end-to-end, and see across all networks to maintain the best quality of services for customers.
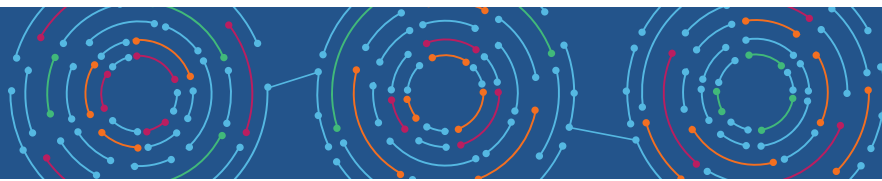
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> "Having a single, simple solution from Kentik in place to perform all of our network observability needs is not only convenient but also cost-effective and powerful."

"The Kentik team is always ready to enhance its platform and implement new features. As we've seen with Kentik Synthetics, it's clear that they always listen to what their customers really need," he added.

"From the operations and planning point of view, having a single, simple solution from Kentik in place to perform all of our network observability needs is not only convenient but also cost-effective and powerful," said Yudin. "My advice to anyone considering Kentik would be to just try it, it's easy!"

ABOUT KENTIK

Kentik is the network observability company. Our platform is a must-have for the network front line, whether digital business, corporate IT, or service provider. Network and cloud professionals turn to the Kentik Network Observability Cloud to plan, run, and fix any network, relying on our infinite granularity, AI-driven insights, and insanely fast search. Kentik makes sense of network, cloud, host, and container flow, internet routing, performance tests, and network metrics. We show network pros what they need to know about their network performance, health, and security to make their business-critical services shine. Networks power the world's most valuable companies, and those companies trust Kentik. Market leaders like IBM, Box, and Zoom rely on Kentik for network observability. Visit us at kentik.com and follow us at @kentikinc.

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