# Kentik launches first network visibility and monitoring 'as a service' offering

**Analyst:** Christian Renaud  Peter Christy

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After more than a year in development, Kentik has formally launched its monitoring and visibility software-as-a-service offering targeted at large network providers and Web properties. The company differentiates itself from the broader network visibility and monitoring (NVM) market by aggregating data from network devices and virtual hosts into its cloud-based Kentik Data Engine, which feeds applications for security, visibility or network-provider-specific needs, including peering analytics.

### The 451 Take

Kentik's team knows firsthand the problems involved in managing large-scale networks, and has designed a SaaS platform specifically tailored for that target market. While there is nothing preventing the company from selling its service to smaller enterprises, we anticipate that the company will stick to 'big game hunting' with large Web properties and operators, where it has already had early success. The SQL-compatible approach to data visualization and manipulation will appeal to the sophisticated large-system customers Kentik is targeting by enabling the use of existing analysis tools that are based on SQL interfaces.

### Context

Large network operators, including Internet service providers (ISPs) and large Web properties (online enterprises), have a unique set of management problems. Foremost among them are the sheer scale and complexity of the networks they operate and the dynamic traffic they serve, complicated further by interconnections and interaction with the large networks of other ISPs (peers). As a result, creating a baseline of overall network performance, identifying trends in

 

bandwidth growth, and troubleshooting application-performance issues can be devilishly difficult with such a high number of devices and dependency on third-party network connections. These network operators have traditionally used a combination of third-party products and internally developed code to monitor and maintain these networks, which presents an ongoing integration headache as the software and network evolve.

Kentik believes it has the aspirin for this headache. The company has released its first suite of products that aggregate traffic data from network devices and hosts ranging from flow data (sFlow, NetFlow, IP Flow Information Export), routing information (border gateway protocol), traditional SNMP statistics, and data retrieved from its own Kentik Agent or third-party sensors. The data is collected in the Kentik Data Engine, a cloud-based big-data service where the data can be accessed by the Kentik Detect applications for DDOS detection, peering analytics and network visibility. The output of these applications can be viewed and configured via the Kentik Web-based portal or accessed by third-party applications (such as existing network operator management systems) via SQL queries or a REST API.

The Kentik Portal is a user-configurable interface into the Data Engine that provides multiple mechanisms for network operators to filter and group the data presented for subsequent analysis. This is critical in large networks, where identifying the root cause of an application performance issue, security problem or outage is a complex, multi-step process that requires isolation of specific variables, often over time. Kentik offers a 'look back' function to view historical traffic data to see how performance or security issues developed over time.

The company is also leaning heavily on its alerting interface, which is configurable as standard SQL queries. Alerts can be sent via email to existing trouble-ticket/workflow systems, syslog (often leveraged by systems such as Splunk) and JavaScript Object Notation (JSON) calls to specific URLs – again, to trigger automated workflows within a network operator's existing management system.

**Company**

San Francisco-based Kentik, originally CloudHelix, was founded in early 2014, and received $3.1m in seed funding in September of that year from First Round Capital, Data Collective and Webb Investment Network. The company completed its A round of $12.1m in June, led by August Capital. Unlike many 'if you build it, they will come' startups, Kentik had early deployments months after its founding, and 20-plus large paying customers within a year, including marquee names Yelp and Box.net.

The founders of the company read like a who's who of Internet infrastructure, with CEO Avi Freedman (best known for his role as chief network scientist at Akamai), Ian Pye and Ian Applegate from CloudFlare, and CTO Dan Ellis from Netflix. Sales and marketing are run by cofounder Justin Biegel (VP sales, previously of Internap) and Jim Frey (VP product, previously VP of marketing at NetScout), respectively.

## Competition

Kentik is the first vendor we've seen with a SaaS-based visibility offering; however, the overall network visibility and monitoring market is already sizeable, and growing at what we have estimated to be a nearly 12% compound annual growth rate. Kentik brings service-delivered, SQL-accessed big-data analysis capabilities as differentiation to this market.

In addition to a large field of pure-play visibility vendors, including Gigamon, Ixia, APCON, cPacket and others, there are vendors that incorporate network traffic information into broader APM/NPM-centric offerings. These include NetScout, which is on the verge of closing its large Danaher transaction, which will give it a vast portfolio of enterprise- and carrier-focused visibility, monitoring, and management tools. New startups that have recently entered the fray include Jolata and Saisei, which take a purely flow-based approach, in contrast to Kentik's approach of incorporating flow data with other routing and SNMP inputs.

There is also a sizeable adjacent market of APM and NPM vendors, such as App Dynamics and the newly merged Keynote and Dynatrace, as well as the extensive ecosystem of security vendors for DDOS detection and mitigation, and IDS/IPS.

## SWOT Analysis

### Strengths

Kentik has the network organizational expertise and early customer traction that other startups would pay dearly for, as well as incorporation of big-data capabilities with a differentiated SQL-access capability.

### Weaknesses

Large network operators are generally not on the cutting edge of software technology (here, big data), and have a legacy of building their own network performance tools. Long sales cycles could hamper the growth curve for the young company.

### Opportunities

Network telemetry and monitoring is the tip of the iceberg for the data Kentik gathers. The company can easily shift into adjacent markets such as APM and forensics.

### Threats

The surrounding markets of visibility, APM and NPM are all in a consolidation stage by large public companies or private equity firms. This consolidation noise could easily drown out smaller Kentik's shouting. Although Kentik has a differentiated big-data capability with SQL-compatible access, the broader market will catch up here over time.