Teridion aims to carve out opportunity in cloud-based network optimization

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Teridion is a startup that is taking a different approach to content delivery, focusing more on the logistics side of moving bits around. The company is aiming to tackle Internet performance with 'cloud optimized routing' rather than a traditional content-delivery network (CDN). In essence, it applies middle-mile optimizations and adds real-time network-performance data to route content across the Internet faster.

THE 451 TAKE
Teridion's concept has some early acceptance in the form of paying customers, such as Box, a provider of file sharing and content management, despite sounding similar (at a high level, anyway) to some existing CDN and traffic-routing services. Distinguishing Teridion's capabilities and performance from existing CDN, SD-WAN and NSP services is going to be an interesting challenge for the startup, but the service does have some good traction for only having been made available late in 2015.

CONTEXT
Enterprise- and consumer-oriented applications are increasingly being consumed in a SaaS or cloud-based model, rather than being solely delivered from the corporate datacenter. At the same time, users of those applications expect WAN-like performance and high availability regardless of whether they are on mobile or wireline networks. The public Internet was designed to be resilient in the face of errors, but that resilience comes at a cost to performance. CDNs addressed that problem by storing content closer to the user and tweaking protocols like TCP so that packets don't need to go back and forth as much. Caching content works for many use cases, but with collaborative or personalized content, or applications that have a lot of upstream communication, that doesn't offer as much of a performance gain.

Teridion has raised $20m from SingTel Innov8 Ventures, JVP and Magma Venture Partners to support its growth plan. It has more than 30 employees.

TECHNOLOGY
The gold-plated approach to solving the Internet performance problem is to control packet delivery by owning the network and the resources connected to it. Services built on top are then priced accordingly.

Teridion thinks the answer lies in the opposite strategy – don't 'own' the network or the resources; instead, leverage cloud providers’ resources and the Internet to run software that can offer significant network optimization. Teridion does this by scaling its Global Cloud Network in real time, spinning up instances of the Teridion Cloud Virtual Router (TCR) under the control of the Teridion Management System. TMS maps Internet performance in real time and routes traffic around congestion points using TCRs that can be running in any of 12 different cloud IaaS providers around the globe. Think of it as the difference between using a map to plan a route to your destination and using Google's Waze, which leverages real-time traffic information from public resources and its users to offer alternate routes around accidents and traffic on roadways.

How is Teridion different from using Border Gateway Protocol for routing traffic? BGP does have options for weighting routes, for example, but BGP is oriented more toward moving traffic closer to the destination. Teridion's routing is performance-oriented; executives cite examples of traffic on its service taking a route from Japan to Seattle to Chicago before reaching its destination in San Jose in less time than the direct transit route was taking.
CUSTOMERS
The companies that Teridion is seeing as early adopters of its service are in markets such as cloud storage/backup and collaboration services, VoIP services, ad-serving services, SaaS providers, and other applications requiring bi-directional interaction (including Web applications using HTTP, UDP, TCP, etc.).

Early reference customers include Egnyte, a file-sharing provider, and Box, another significant player in enterprise file sharing and content management. Lexifone, a VoIP service provider that offers in-call translation, is another paying customer, and others in that market vertical are engaged in trials with Teridion, as are companies in the ad-serving space. Leverate, which provides trading platforms and other technology for brokerages, is also a customer.

Pricing of the service can be offered on a ‘per gigabyte of traffic delivered’ basis (similar to CDNs) or by the number of users (an option for customers like SaaS providers). Applications such as a VoIP service, where jitter or latency is of utmost importance to service quality, can be accommodated by maintaining a virtual backbone; just as with a customer that wants to ‘multi-home’ a service through multiple network providers, a Teridion customer can set up a virtual backbone network (VBN) for redundancy. Other extra-cost options include setting up and maintaining a minimum footprint of cloud routers.

COMPETITION
By not building out permanent resources, Teridion says it has a better cost basis for operating its service than the CDNs against which it might be seen as competing. Along those lines, $20m is a pretty small amount of funding compared with other CDNs – Instart Logic has raised $140m to date, and CloudFlare has raised $182m in funding. It should be noted that some companies like having significant amounts of capital invested, in part to convince customers that they are around for the long haul.

Does Teridion directly compete against CDNs? Not exactly. It doesn’t do any content caching, so it could actually partner with (or be acquired by) a CDN to accelerate dynamic content. That said, it accelerates file and video downloads, so there is some potential for competition in some market segments.

All CDNs say they overcome network congestion, with some using leased lines or their own networks (Level 3, for instance). While they do control on-network traffic, there’s less control over delivery once it leaves a provider’s point of presence. Teridion also argues that this isn’t a very agile solution. Akamai has its SureRoute service, which appears to offer a similar solution to the IP congestion problem, with one difference being that Akamai is determining routes for traffic between its own server nodes, not nodes operating on a third-party cloud provider. Again, there’s an argument to be made for flexibility and cost of operation, although Akamai has a huge amount of traffic to monetize against those assets.

In terms of other cloud networking services, Aryaka Networks might also be considered a competitor, although at present Aryaka is more focused on the enterprise market and serving as a substitute/replacement for MPLS networks. Furthermore, Teridion does not perform any de-duplication of data, a feature that Aryaka offers.

A company providing products for BGP optimization called Noction offers customers the ability to better manage traffic-routing decisions based on real-time performance data. Its customer base is largely hosting, cloud and datacenter providers that have staff whose job is to manage and maintain networks.
### SWOT Analysis

#### Strengths
Teridion has developed a network-optimization service that leverages cloud computing resources from a variety of providers in order to provide better performance for both upstream and downstream communications.

#### Weaknesses
Distinguishing itself from SD-WAN services and other forms of cloud networking is going to be a challenge in the enterprise market.

#### Opportunities
Networks and related infrastructure are still a fairly inflexible piece in the enterprise IT architecture; services that enable better monitoring and management of network traffic will be key components to fully realizing the promise of cloud-based infrastructure.

#### Threats
Any service that comes near to Akamai’s markets runs the risk of having Akamai enter said market – or potentially acquiring it. There are also potential competitors in adjacent markets, such as SD-WAN and perhaps traditional network service providers, although they may wind up being partners/resellers down the road.