Impact Report

Dyn taking a DNS-centric approach to cloud-deployed network services

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Dyn is best known as a provider of consumer and enterprise managed DNS services. Building on its installed base and nine acquisitions, the company is now eyeing the cloud-delivered services market with its combination of DNS expertise and monitoring network of Border Gateway Protocol (BGP) performance acquired from Renesys. The next step will be key if Dyn chooses to enter the services market directly, acts as an arms dealer to many combatants or is acquired by a larger company that recognizes the value of its DNS assets.

The 451 Take

Dyn is in a key position in the growing cloud-delivered network services market with its DNS services, geographically distributed datacenters and value-added analytics, and has the luxury of experimenting with different go-to-market strategies using its consumer and enterprise managed DNS business as 'milk money.' The company is a natural complement to cloud-based L4-7 services from other vendors and a natural partner given the maturity and ubiquity of its traffic management platform. Dyn provides value in multiple markets (application performance management [APM], distributed denial of service [DDOS] protection, Web performance monitoring) and will need to develop a unique message and value proposition in order to remain relevant against much larger, focused competitors in each category.

Context

DNS (Domain Name Services) is the long-standing distributed Internet service that (nominally) maps symbolic resource names into the IP numbers used as network addresses. For the last 15 years, DNS has been cleverly exploited for all sort of network optimization (DNS is at the heart to how Akamai and others optimize content delivery). Over the same time, DNS has been exploited as a means of attack, either as a means of service denial or more insidiously, as a way of creating incorrect DNS mappings (e.g., sending a user to a malicious site instead of the desired site). The last five years has seen the rapid adoption of cloud-delivered network services, ranging from WAN optimization, load balancing and application delivery, and DDOS mitigation. These services and others depend heavily on a solid and reliable DNS foundation to operate from, with DNS manipulation playing a key role in cloud-based anti-DDOS specifically. Dyn grew over the last decade from providing reliable DNS services to consumers and enterprises to incorporating Internet performance and connectivity metrics for a form of performance-based routing. A series of acquisitions, most recently Internet performance monitoring firm Renesys in May 2014, bolstered Dyn's technology and team in this area specifically, which the company terms 'Internet Intelligence.'

The growing number of vendors of software-defined WAN overlay networks each employ their own proprietary method of doing route optimization. Anti-DDOS products such as F5's Silverline use a combination of functions including BGP and DNS to force the attack away from the local enterprise and to cloud-based services. Load balancers and their more sophisticated siblings application delivery controllers (ADCs) frequently use DNS queries in tandem with other technologies to load balance sessions geographically to achieve higher performance.

Dyn sits below these applications, managing and monitoring the DNS system for both performance and security. The combination of homegrown and Renesys-acquired BGP and traceroute metrics throughout the Internet provides near real-time performance monitoring between Internet links, which in turn enables new startups (or existing combatants that see rising costs of deploying parallel infrastructure) a foundation to develop overlay virtual

services.

Company

Dyn was founded in a dorm room at Worchester Polytechnic Institute in 2001 by then student Jeremy Hitchcock. Hitchcock, now CEO, developed an approach for dynamic DNS and remote access that expanded into domain registration in 2004, enterprise managed DNS in 2008 and eventually its Internet Intelligence business in 2014. The company has a staff of over 400 employees worldwide with its headquarters in Manchester, New Hampshire.

In 2012, Dyn raised $38m in a series A led by North Bridge Capital, which has enabled the company to add five more acquisitions (Verelo, Trendslide, ReadyStatus, Nettica, Renesys) to its DNS and related services market roll-up strategy. The company had previously acquired smaller DNS players EveryDNS (2010), EditDNS (2010) and TZO (2012), as well as SendLabs (2010), an email provider. Dyn subsequently sold a non-core portion of its email business to DuoCircle in November 2014.

Competition

Dyn's combination of DNS and Internet intelligence capabilities array it against a number of competitors across multiple categories of the market. Security is driving much of new IT spending recently, and the competition for Dyn's DDOS protection/mitigation capabilities set it up against 'brand name' firms such as Verisign, Akamai and Neustar. In addition, Infoblox and BlueCat offer combinations of DNS services and IPAM (IP address management).

APM tools frequently point at volatility within the Internet as the determining factor of application and network performance, which has resulted in Internet performance-monitoring capabilities being built into Gomez, Keynote and Compuware.

SWOT Analysis

Strengths

The company's existing revenue center of managed DNS gives it flexibility to pursue multiple adjacent markets without endangering its cash cow. The growth of cloud-deployed network services creates a steady stream of new potential partners for Dyn's Internet Intelligence offering.

Weaknesses

Being a horizontal technology in a vertically oriented sector is difficult and adds to sales/marketing costs. The company likely also needs to rebrand itself to shed its consumer legacy.

Opportunities

Performance routing has application across the spectrum of overlay networks and network services. Being an arms dealer while multiple vendors fight for dominance in each L4-7 service area is likely the more lucrative option.

Threats

Dyn's integrated strategy combining DNS and Internet performance monitoring places it in the crosshairs of many focused, larger competitors that can wait for the company to (pay to) develop the market and then introduce competitive offerings that leverage their own brand equity.

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Company: Dyn
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