

DYNAMIC NETWORK ACCELERATION

What is DNA?

DNA stands for CDNetworks' Dynamic Network Acceleration solution. It is a managed service offering that enables extremely fast transmission of dynamic enterprise application traffic (browser or non-browser based) over the public internet. Rather than caching the data between requesting and responding endpoints, DNA employs a set of geographically dispersed transparent proxies in the "middle mile" of the dataflow over the Internet. These proxies create a virtual expressway for data packets by dramatically reducing the required number of round trips necessary for their transmission. DNA conforms to enterprise security standards by not caching any content or hosting SSL certificates, thereby relinquishing application delivery control to the internal users of the enterprise customer.

The majority of enterprise applications are non-browser based, whether they involve VPN clients running in SSL mode over TCP-IP protocols or remote users connecting to virtualized instances of their desktops hosted in their own enterprise data center(s). There are also a number of browser-based intranet applications (ERP, CRM, SCM, etc.) running in SSL-VPN mode which require secure transmission over the public internet. DNA addresses all of these circumstances.

Why is DNA superior to network appliances, such as WAN accelerators?

DNA is superior to WAN accelerators in two ways. First, DNA eliminates the need for upfront CapEx. WAN acceleration solutions require broad hardware deployment, making them CapEx-intensive. By contrast, DNA is delivered as a managed service, requiring no hardware deployment or installation. Second, DNA provides broad-based acceleration to all application user locations, while WAN accelerators only address branch office locations. For organizations with remote users, work-from-home employees, and external business partners that access enterprise applications, DNA's public Internet acceleration outperforms WAN accelerators. Based within an enterprise's own networks, WAN accelerators simply cannot address the performance needs of users accessing applications from a high number of dispersed locations.

What are some of the use cases for DNA?

DNA is ideally suited for resource-intensive, internal-facing applications that run on a global, distributed scale. Such applications require minimal application latency, downtime, or outages to avoid severe disruptions to enterprise productivity. These often include CRM, ERP, or HR applications delivered over SSL-VPN; Telnet; and even Webex.

DNA strongly supports businesses running secure, time-sensitive financial transaction applications, such as those supporting eCommerce or online banking services. DNA's non-intrusive packet handling works well for such applications that strictly prohibit network elements from looking into or caching their encrypted packets



running over HTTPS. This use case for DNA is similar for healthcare organization applications that exchange sensitive patient data over the public Internet.

DNA is also an obvious choice for accelerating remote business/enterprise sites for HTTPS traffic without any need for caching. Those enterprises whose servers and accessing clients are separated by vast distances will realize the maximum benefit from DNA. DNA also provides tremendous improvement for organizations with distributed users in countries where IP delivery is not always reliable.

How does DNA help eCommerce companies?

DNA adheres to PCI compliance. In fact, the CDNetworks Web Performance Suite, including DNA, is PCI compliant. The PCI standard includes a stringent set of requirements for online payment / secure credit card processing over the Internet. CDNetworks has rigorously developed and implemented its PCI-compliant solutions to ensure eCommerce companies can process payments and credit card transactions over our network, foregoing the unreliable, potentially unsecure network elements of the public Internet.

DNA also helps eCommerce companies quickly scale customer interactions at high performance. DNA's wide overlay network of PoPs across the globe ensures high performance and prevents transaction delays and terminations caused by unreliable, transient network conditions. This is critical to ushering shoppers through the purchasing process, all the way through to "checkout."

What kinds of applications and protocols are supported by DNA?

DNA supports a wide variety of applications running over TCP-IP. The most common use cases include support for email applications (SMTP/IMAP), remote desktop protocols such as ICA (for Citrix), and SSL-VPN for Cisco OpenVPN clients.

What is the impact of installing DNA on a customer's web applications, existing IT systems, network, etc.?

Zero impact. Since we deliver DNA as a managed service, customers have no need to purchase or install hardware. They also do not need to modify their existing application installations.

How does SSL work with DNA?

With DNA, SSL terminates at the customer's server and not at CDNetworks' proxies. By not hosting customer SSL certificates, CDNetworks eliminates any possibility of compromising sensitive, consumer data. CDNetworks offers an additional solution, called DWA, for customers that want to accelerate applications while offloading their SSL certificates.

How does DNA ensure the integrity of enterprise content at all times?

DNA does not cache or decrypt data packets that carry end-user transaction data, thereby ensuring content/application integrity at all times.



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Features and specifications
subject to change without notice.



Does DNA accelerate content on an organization's internal LAN or WAN?

DNA accelerates content moving from an organization's internal LAN or WAN for site-to-site and site-to-user connections when applications and content traverse the public internet on the way to their final destination.

Where does DNA come into the picture when you think about an organization's internal WAN?

DNA is an extension of an existing enterprise data center or WAN to remote areas/offices. DNA makes extending the data center or WAN possible without incurring additional CAPEX/OPEX.

How long does it take to deploy DNA?

Between 3 days and 2 weeks, depending on the complexity of the installation.

To learn more about our Dynamic Network Acceleration solution visit <http://www.cdnetworks.com/solutions/dynamic-network-acceleration> or contact us at info@cdnetworks.com

