# Hosting Provider for Marketing Campaigns Increases Value with SSL Offload

**Company:**
- SapientNitro

**Critical Issues:**
- Legacy ADC solutions could not meet capacity requirements for large-scale web infrastructure
- 2048-bit SSL keys would increase web server hardware cost
- SSL key management was complex and time consuming

**Selection Criteria:**
- High performance, SSL Offload, no licensing gimmicks for advanced features and high quality support

**Benefits:**
- Additional capital outlay to upgrade web server infrastructure no longer required, additional capacity and reduced operational expense

**Results:**
- Handle more customers with existing infrastructure and improve the end-user experience through faster response, while reducing operational and capital expenditure

SapientNitro is a multi-channel marketing services firm that creates and manages marketing campaigns for some of the world's largest brands. SapientNitro combines communications, brand and transactional expertise to conceive, build and execute integrated, multi-channel brand experiences that lead to tangible business results. With 7,000 employees and offices in 32 cities in North America, Europe, and Asia-Pacific, SapientNitro creates global multi-channel marketing and social media campaigns. The company's primary operational locations are their headquarters in Boston, MA and an off-site disaster recovery site.

To power its campaigns, SapientNitro's large scale network uses Windows 2008 web servers, SQL 2005 servers, Linux web servers, and custom web applications such as BridgeTrack. BridgeTrack is SapientNitro's custom made digital marketing suite that provides advertisement hosting, reporting and many more features. The network hardware consists of Cisco switches and Fortinet firewalls, as well as custom home-grown firewalls. The content and applications were previously load balanced and controlled by several pairs of legacy Server Load Balancers (SLBs) before the introduction of A10 Networks' Application Delivery Controllers (ADCs).

## Scaling Future Growth and Handling 10 Million+ Request Traffic Spikes

SapientNitro provides managed online content delivery to its customers, typically serving 2-5 million users per hour. During certain campaigns, the load can easily spike up to 14 million hits per hour.

These web traffic requirements demand an ADC solution that can provide high performance, scalability and availability. In order to distribute these enormous online sessions, SapientNitro previously used F5 Networks' BIG-IP products, which could not meet the demanding and increasing requirements of their network. Keepalived, an Open Source solution, was also examined but it could not meet certain requirements, for example SSL Offload requirements. The absence of a professional support infrastructure and predictable Service Level Agreements (SLAs) was also a reason not to choose the Open Source solution.

The operational cost of managing SSL certificates was one particular challenge in SapientNitro's environment. The introduction of 2048-bit SSL keys not only put additional strain on web server performance (requiring anywhere from 3 to 7 times the processing versus existing 1024-bit SSL keys); replacing and managing certificates on individual web servers was a tedious task.

To increase performance, scalability, manageability and availability for its dynamic infrastructure, SapientNitro required a high performance ADC solution backed by consistent and highly responsive support. The solution: Scalability and high-performance SSL Offload.
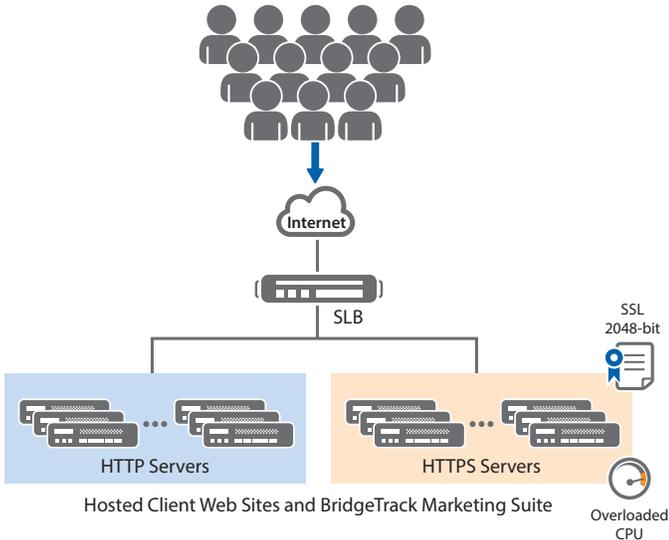
*SapientNitro Legacy Network Overview*
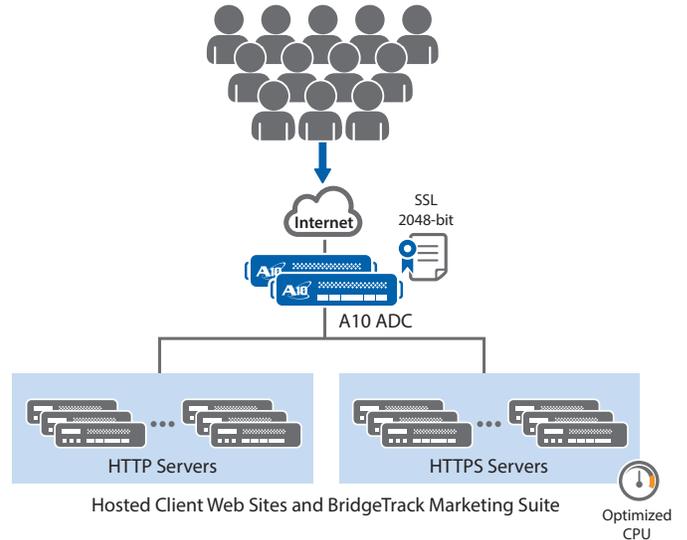


*SapientNitro Optimized Network Overview*

## The Solution: Scalability and High-performance SSL Offload

The A10 ADC was able to satisfy the requirements set by SapientNitro. The SSL Offload feature greatly simplifies SSL-key management; now certificates are centralized at the ADC for management, instead of stored on the individual web servers. Additionally, the dedicated SSL processors within the A10 ADC enable SapientNitro to handle the increased SSL requirements bought on by the upgrade from 1024-bit to 2048-bit keys—without impact to the web servers. The SSL Offload feature allows SapientNitro to return processing capacity to the web servers, and ensure better server and application performance with the existing hardware. For SapientNitro, this directly translates into reduced data center footprint, reduced power consumption and more cost effective operating expenses. A10 Networks provides worry-free licensing and does not charge additional licensing fees for performance or features such as SSL Offload.

## Success: High Performance, Flexible and Scalable Data Center

SapientNitro's marketing campaigns immensely boost a company's brand recognition and increase product awareness to the consumer. This results in enormous spikes in web traffic. The hosting environment needs to be highly available and adaptable to these events. ADCs are an essential element in keeping this online content available to a company's target audience.

**Key features critical for SapientNitro's environment**

- **2048-bit SSL Offload:** The A10 ADC offers hardware-based SSL Offload, which greatly simplifies SSL certificate management and reduces hardware demands for the web servers. No server upgrades are required to upgrade the entire server farm to 2048-bit SSL keys, when using the A10 ADC to perform SSL Offload. Web servers no longer need to be touched individually.

- **L7 HTTP content switching:** Allows client traffic to be redirected intelligently to a pool of servers, and realize the best browsing experience for an end-user.

- **No licensing fees:** The dynamic demands placed upon the ADC could not be met using a "nickel-and-dime" licensing approach. A10 Networks provides unlimited access to all the product features, and all capacity is readily available.

- **Logging**: Statistics for web traffic are extremely important for proving and analyzing the results of certain changes in marketing messages. The A10 ADC provides extensive, flexible logging capabilities.

In addition to the A10 ADC features, SapientNitro's engineers are extremely happy with the level of support they receive from A10's Technical Assistance Center (TAC) in San Jose: "A10's support feels like dealing with a partner, rather than a vendor," said Anthony Camilo, Manager of infrastructure, SapientNitro.
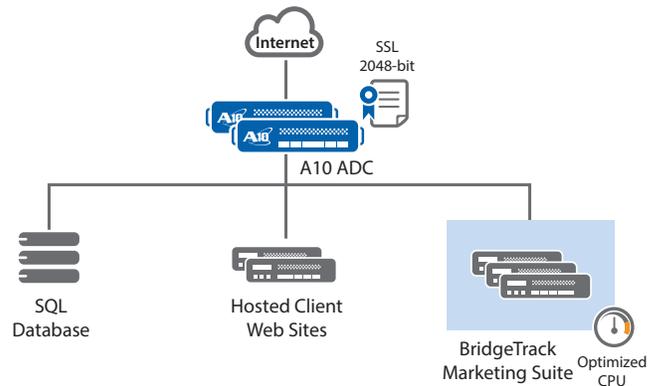


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## Summary

The requirements for an ADC are very dynamic and demanding, in an environment such as SapientNitro's. A10 ADC provides a high-performance solution that makes SapientNitro's content and services available to their customers' audiences. The solution offers an extremely flexible, scalable and highly available environment; the production environment can expand on demand. A10 makes this possible with extremely competitive pricing, which does not "nickel-and-dime" for essential features such as SSL Offload, or for unlocking more performance.

SapientNitro is also looking to implement aFleX TCL scripting and Global Server Loxad Balancing (GSLB) to support future initiatives; with the all-inclusive licensing, they can be assured of zero budget surprises. As Anthony Camilo, Manager of infrastructure, SapientNitro summarized; "Now we can run as many campaigns as we need without disruption."

## About A10 Application Delivery Controllers

A10 ADC is a scalable, high-performance application networking platform that delivers enterprises, web properties and Internet Service Providers (ISPs) with superior reliability and an energy-efficient footprint for low total cost of ownership (TCO). With A10 ADC, customers of all sizes benefit from application availability, scalability and performance, increased infrastructure efficiency and a faster end user experience. The A10 ADC has a comprehensive Layer 4-7 feature set and flexible virtualization technologies such as A10 Networks aVCS™ Virtual Chassis System, multi-tenancy and more for public, private and hybrid cloud environments. In addition, A10 ADC leads in IPv6 migration technologies with many large-scale deployments worldwide.

A10 ADC delivers an industry-leading return on investment (ROI) by leveraging A10's 64-bit Advanced Core Operating System (ACOS), with a scalable shared-memory parallelism architecture that surpasses the competition in scalability and flexibility.

For more information, visit: www.a10networks.com/products/application_delivery_controllers.php

## About SapientNitro

SapientNitro provides the following solutions for their customers:

- **Marketing Campaign creation and execution**. Marketing Campaigns are created and launched, directly hosted on managed media platforms in their own Data Center environment.

- **Analytics**. Campaign traffic is analyzed to measure its effectiveness, and to scope Data Center needs. The Data Center needs are extremely dynamic.

- **Branding**. Brand strategy, customer experience analysis each are important aspects of defining a customer's brand name and recognition.

## About A10 Networks

A10 Networks is a leader in application networking, providing a range of high-performance application networking solutions that help organizations ensure that their data center applications and networks remain highly available, accelerated and secure. Founded in 2004, A10 Networks is based in San Jose, California, and serves customers globally with offices worldwide. For more information, visit: **www.a10networks.com**

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