

Advanced Application Delivery Solution for Growing Online Retailer

Company:

- 123inkt.nl

Industry:

- Retail

Network Solution:

- A10 ADC was chosen for its high performance and enhanced hardware capabilities.

Critical Issues:

- Online retailer in need of a new hardware load balancing infrastructure that is both reliable and feature rich.

Benefits:

- Significant increase in performance and a multitude of features.

Results:

- Dependable service with improved uptime, caching, and page loading.

“We chose A10 Networks due to reliability and hardware capabilities. During our initial load test, performance increased by 22 percent over our installed systems, right out of the box! A10 ADCs also had double digit performance gains over other tested systems.”

Tim de Wolf,
CIO, 123inkt.nl

Introduction

Based in the Netherlands, 123inkt.nl started its e-commerce company back in 2000 selling a range of inkjet and toner cartridges. Over the past few years the product range has grown rapidly to an extensive selection of printer and office supplies. The 123inkt.nl website receives over 550,000 visitors a month. 123inkt.nl is the current leader in online sales of printer supplies in the Netherlands with more than 40 percent year over year growth. 123inkt.nl's growth stems from its ability to provide high-quality products as well as personal customer service, including next-day deliveries. 123inkt.nl has won numerous awards for “Best Online Store” in the Computer Hardware & Software category in the Netherlands every year since 2008.

Performance Challenges

The online space is a highly competitive market, where the end-user experience is an essential focus for online retailers such as 123inkt.nl. Optimizing website performance can have significant benefits, specifically by converting more clicks into sales through faster website performance. To meet the challenges associated with growth, 123inkt.nl exclusively sought a hardware-based load balancing solution for their new web platform, a solution that would improve uptime, include high-performance caching, and provide faster page loading time for end-users.

Load tests were performed with vendors such as Cisco and Barracuda Networks as well as Linux Virtual Server (LVS). A10 Networks® was highly recommended by Quanza Engineering, an A10 Certified Partner.

A10 Networks Application Delivery Controllers (ADC) showed an overall performance increase due to its proven dependability and wealth of features; as a result 123inkt.nl selected A10 ADCs for its network infrastructure upgrade. Due to the A10 ADCs and 123inkt.nl's new server hardware platform, an overall performance increase resulted. “During our initial load test, performance increased by 22 percent over our installed system, right out of the box! A10 ADCs also had double digit performance gains over other tested systems,” explains Tim de Wolf, CIO at 123inkt.nl.



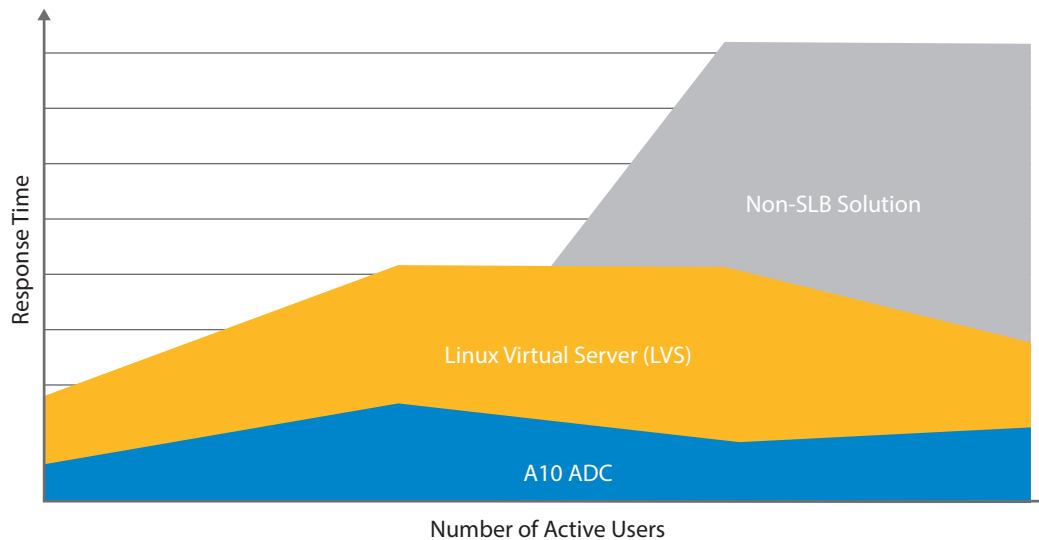


Figure 1: System response time

A10 ADC allows for an optimal performance environment, which is especially attractive for 123inkt.nl to handle any peak traffic conditions that may arise, a particular focus for online retailers.

123inkt.nl conducted several tests to qualify the system response times comparing the old platform with no server load balancing solution, the Linux Virtual Server (LVS), and A10 ADCs. The tests verified that A10 ADCs could effortlessly handle an increasing load of concurrently active users on the website. This is especially important to 123inkt.nl, as the chosen platform needs to be able to handle sudden peaks in website traffic. In addition, making the right choice was especially critical for 123inkt.nl. Their investment had to be able to handle the company's rapid growth.

Significant features that met 123inkt.nl's needs:

- **Superior High Availability (HA):** Customer experience is a high priority for 123inkt.nl's deployment where absolutely no downtime is tolerable. Stateful HA provides sub-second failover and session synchronization between A10 ADC appliances. This ensures continuous connectivity for an enhanced and reliable customer experience online. Furthermore, when network maintenance is performed, there is no impact to the end-user, as the process is always transparent and hitless.
- **Advanced SSL Offload:** Processing SSL traffic on A10 ADC appliances seamlessly increases transaction speeds, decreases server hardware requirements, and provides ease of administration. A10 ADCs use dedicated SSL ASIC processors to relieve server hardware of the burden of managing CPU-intensive SSL traffic. This is extremely important with the industry's rising standards for SSL encryption levels in the past few years, in addition to reducing the number of required servers to support transactions.

- **Increased HTTP RAM Caching:** A10 ADCs provide faster client download of HTTP objects and improves web server scalability. 123inkt.nl's customer online experience is greatly improved with the A10 ADCs' dynamic HTTP RAM Caching feature, which increases application responsiveness by reducing CPU processing times when requesting content from the servers.
- **Enhanced Performance:** A10 ADCs allow traffic to utilize multiple CPUs without latency or blocking; therefore applications run exponentially faster, especially during peak usage times. A10 ADCs' Advanced Core Operating System (ACOS®) provides performance with zero IPC, zero interrupt, zero scheduling, zero locking and zero buffer copy; this linear non-blocking architecture ensures the lowest latency in packet processing. ACOS represents a new generation of ADC with greater performance, and the greatest performance per Watt, making A10 ADCs the most flexible, scalable and energy efficient solution on the market today.

Success with a Customer Driven Focus

Online retail is a highly competitive business; with a reliable online customer experience, growing companies such as 123inkt.nl can strive to hit higher conversion rates as well as a growing loyal customer base. Since deploying the A10 ADCs, 123inkt.nl has continued to grow and gain recognition as one of the most popular online retail sites. A10 ADCs offer the competitive advantage that 123inkt.nl was looking for to restructure an advanced load balancing solution for its planned advanced hardware-based integration.

The features A10 ADCs provide are especially ideal for 123inkt.nl's focus on a premium customer experience; A10 ADCs have proven capable of handling peak traffic times such as holiday shopping, the back-to-school rush and peaks in traffic due to special sale offers and promotions. The reliable and feature rich offering provided by A10 ADCs allow growing companies such as 123inkt.nl to focus on the customer without the need to worry about the load balancing side of the customer's online experience.

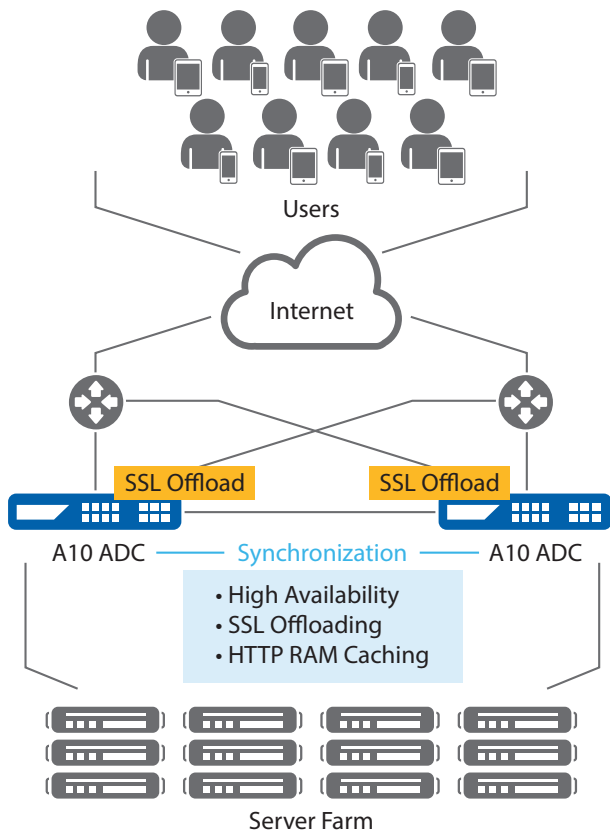


Figure 2: 123inkt.nl logical diagram

About A10 Application Delivery Controllers

A10 ADC is a scalable, high-performance Application Networking platform that delivers enterprises, Web properties and ISPs superior reliability and an energy efficient footprint for lower total cost of ownership (TCO). With A10 ADCs, customers of all sizes benefit from application availability, scalability & performance; increased infrastructure efficiency and a faster end-user experience. A10 ADCs have a comprehensive Layer 4-7 feature set and flexible virtualization technologies such as Virtual Chassis System (aVCS®), multi-tenancy and more for public, private and hybrid cloud environments. In addition, A10 ADCs lead in IPv6 migration technologies with many large scale deployments worldwide.

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A10 ADCs deliver 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 leaps the competition in scalability and flexibility.

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

About 123inkt.nl

123inkt.nl is the #1 online store for printing supplies in the Netherlands. Since its inception in 2000, 123inkt.nl has grown rapidly and continues to grow. 123inkt.nl continually strives to further its lead as the benchmark in customer service, winning top honors as the "Best Online Store" in the computer hardware and software category in the Netherlands for 5 consecutive years since 2008. For more information, visit: www.123inkt.nl

About Quanza Engineering

Quanza Engineering designs, builds and supports '100%-available IT infrastructures'. For Quanza's typical customers, digital interaction with customers, partners and suppliers is of the essence and reliability is key. Quanza's availability-without-compromise, prevents reputational damage and lost revenues. To reach these levels of reliability, Quanza uses a number of great and sometimes even unique partnerships with hardware-and software vendors. Quanza employs the best people and nurtures a company culture where good-is-not-good-enough. For more information, visit: www.quanza.net

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

To learn more about the A10 Thunder Application Service Gateways and how it can enhance your business, contact A10 Networks at: www.a10networks.com/contact or call to talk to an A10 sales representative.