Shasta County government (http://www.co.shasta.ca.us/), located in Redding, CA, provides information and services to the County of Shasta, with a network that ties into organizations such as the City of Redding Police Department, 911 Services and Public Safety. The Shasta County IT Infrastructure team’s charter includes providing a reliable Website to distribute information as quickly and efficiently as possible and provide greater access to public health information with a focus on disaster preparedness.

In addition to its charter, the Shasta County IT team received requests from various affiliates asking for assistance to offer services such as health-related streaming media videos via the Internet to educate the public. Shasta County Web application servers include Outlook Web Access, FTP, GIS and Web, running in a virtualized VMware environment. However, its network could not scale to accomplish its charter as it could not provide additional requested services for the public due to inability to handle increased load. Shasta County also had another software solution to proxy connections for added security in front of its existing infrastructure and received complaints that its Web pages would not load.

Shasta County learned that by adding a server load balancing platform, it could scale its existing infrastructure to satisfy all of these objectives at once. The Shasta County IT team received approval to design an upgraded infrastructure to handle predicted network requirements for up to five years and immediately began researching options. After narrowing down the solution to the top three load balancing solutions, Shasta County chose A10 Networks® Application Delivery Controllers (ADC) due to technical superiority and the industry’s best price/performance.

“We researched the three major load balancing solutions on the market and were delighted to learn we could deploy A10 ADCs for the most superior technology at a fraction of the price. Now everyone is happy: we stayed well within budget, our users notice faster response times and my team delivered on its charter to serve the public.”

Tom Lee
IT Supervisor for Infrastructure
Shasta County
A10 ADC: Twice the Performance at Half the Price

Shasta County matched its application delivery requirements with A10 ADCs’ core server load balancing and advanced application delivery functionality to receive tremendous benefits:

• **Dynamic RAM Caching:** The A10 ADC includes high-performance RAM Caching to reduce the number of connection and server requests needed for transactions. Frequently requested data is available directly from the A10 ADC, removing the need for additional overhead on the backend servers, thus increasing capacity and response times dramatically. The dynamic element to RAM Caching ensures stale data is never served from the RAM Cache, thus ensuring users receive only up-to-date information. As a result, Shasta County users have noticed faster response times and the IT team has the proper infrastructure to support increased load from streaming video.

• **aFleX Layer 7 Scripting:** To improve security measures on its financial system, Shasta County leverages A10 ADCs’ Deep Packet Inspection aFleX® scripting ability to minimize and correct security issues. The aFleX scripting tool allows any portion of the data, header or packet to be inspected. An action can then be applied as required, such as changing data, removing data or overriding a default load balancing decision. Separately, Shasta also leverages customizable external health checks on the backend servers to ensure availability with application-specific checks.

• **SSL Offload:** Shasta County has also moved certificates from its Outlook Web Access servers to the A10 ADC. This offloads encryption and decryption services from the individual servers to A10 ADCs’ SSL ASIC to greatly increase Outlook Web Access performance and user response times, while also reducing management costs.

**Before and After: Shasta County Delivers on its Charter**

The transition from the software solution to the A10 ADC took only ten minutes and not a single user was adversely affected. In fact, directly following the transition, Shasta County’s IT team received feedback that its website and applications are running faster than ever. With the A10 ADC, Shasta County delivers on its charter to distribute information as quickly and efficiently as possible and provide greater access to public health information. It also has a scalable infrastructure that can handle increased load from streaming video and other new applications for the next five years.

**Shasta County’s Network**

![Shasta County's Network Diagram](image)

**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](http://www.a10networks.com)