



## Customer

TriNet Group, Inc.

## Industry

Web-based Outsourcing of  
Human Resource Services

## Location

San Leandro, California,  
U.S.

## Crescendo Networks Solution

AppBeat™ DC

## Results

- Improved end user response time by 40 to 50%
- Reduced bandwidth consumption by 55%
- Reduced required web servers from 25 to 8

## AppBeat DC Improves TriNet's Application Performance and Scalability

Founded in 1988 in the San Francisco Bay Area, TriNet provides strategic, cost-effective payroll, benefits, and human resource outsourcing services to companies throughout the United States and Canada. TriNet specializes in helping small and medium-sized businesses reach their corporate goals and become destinations for top talent, enabling them to compete successfully with larger, more established organizations. TriNet's comprehensive offerings include HR administration, online employee benefits administration and support, employer risk management, payroll processing, tax compliance, workers compensation, group health and welfare products, and strategic human capital management consulting services.



## The Challenge

Client information is a critical aspect of how TriNet conducts its business. As a company that provides human resource outsourcing services, it must maintain accurate information on all of its customers and their employees. To maintain that confidential information, TriNet runs a private VPN, offers a secure web portal called HR Passport and maintains an Oracle/PeopleSoft Human Resources Information System called an HRIS.

Despite the systems TriNet had in place, Rich Goddu, Director of Networks and Systems at TriNet, recognized the need to increase throughput, especially during the six-week "open enrollment" window each year when employees of TriNet customers make changes to their existing benefit plans. While the open enrollment period lasts for six weeks, it is also fairly typical for employees to wait until the last three or four days before making their selections.

"While a lot of employees actually decide to default to the benefits they had previously, we can't risk not providing bandwidth. We can't afford for our site to come to a screeching halt!" Goddu observed.

Load balancing was a major concern for TriNet. While the company could have 25 web servers to handle the open enrollment workload, all the servers would not be required post enrollment. It was not the cost of the servers, however, that concerned Goddu, rather the cost of manpower to support them.

## The Challenge (cont'd)

In addition the company runs dual sites for its databases, one in Reno, Nevada and a hot standby at corporate headquarters in San Leandro, California. If for any reason there are connectivity problems getting to Reno, the web servers need to be easily switched from Reno to San Leandro with minimum interruption in service.

## The Solution

Goddu decided to focus his research on finding a solution that met all of his needs. He identified the following product feature wish list:

- Load balancing
- Compression – reduce response time and use half as many servers
- Consolidation – better manage TCP connections in hardware
- Easy-to-use interface

After much research, Goddu and his team short-listed two vendor solutions. Over a period of three months, both vendor technologies were evaluated and ultimately Crescendo Networks' AppBeat DC was selected.

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*"Before AppBeat DC, I was going to get the two latest and greatest boxes from my existing load balancing vendor. AppBeat DC, however, allows us to make our existing boxes run faster, while also reducing our overhead."*

Rich Goddu, Director of Networks and Systems

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AppBeat DC is the industry's best performing application delivery solution, providing high availability, scalability, acceleration and optimization for web applications. Unlike competing solutions, AppBeat DC's purpose-built platform is uniquely designed for maximum performance and feature concurrency. By offloading servers from process-intensive tasks and optimizing the delivery of the application to the users, AppBeat DC significantly improves the overall application performance, security and availability.

## The Results

As a large number of users approach the TriNet portal, AppBeat DC opens a small number of backend TCP connections to each server, and terminates and manages the front-end applications to ensure that the servers receive only the amount of application traffic they can handle comfortably.

AppBeat DC also increases server scalability by "shielding" servers from client TCP connections. Instead of managing many TCP connections, the servers are now only aware of a small number of persistent, high-speed connections from AppBeat DC. This enables server resources to be focused on application processing instead of connection or SSL management.

AppBeat DC's compression capability reduces TriNet's bandwidth consumption, and also serves to further reduce end user response time. The SSL acceleration module offloads the CPU-intensive task of enabling secure connectivity to HR Passport and TriNet's other applications. Management is then simplified by enabling IT staff to manage all SSL certificates in a single device.

AppBeat DC immediately improved application response time and scalability of the PeopleSoft-Oracle application. The product's ability to utilize all advanced features simultaneously, even at gigabit speeds, enabled TriNet to use only two redundantly deployed ADCs. End user response time improved by 40% to 50%, bandwidth consumption was reduced by 55%, and the existing application infrastructure demonstrated 3-5 times the scalability of the previous solution, utilizing the same server hardware. Additionally, TriNet needed to provision only eight servers, instead of 25.

## About Crescendo Networks

Crescendo Networks accelerates and optimizes delivery of business-critical Web applications through the market's best-performing application delivery controllers. A purpose-built hardware design with a massively parallel architecture enables Crescendo's ADCs to outperform competing products under peak load with all features turned on, allowing servers to serve user requests even under massive HTTP traffic or extreme load. The company's products are used by many of the world's most sophisticated and fastest-growing Web properties to ensure usability, facilitate rapid business growth, lower IT costs and capture additional revenue. For more information, visit [www.crescendonetworks.com](http://www.crescendonetworks.com).