



# jetNEXUS Case Study

## TCS EDUCATION SYSTEM



### TCS Education System Replace Microsoft NLB Solution with jetNEXUS ALB-X Virtual Appliances

Explosive business growth had led to added infrastructure demands on TCS Education System's web farm and their existing load balancing solution had some performance limitations.

TCS Education System deployed the jetNEXUS ALB-X VA to optimise the performance and resilience of their online services.

### jetNEXUS Accelerating Load Balancer Extreme

- *Extreme Web Acceleration*
- *Optimised Application Delivery*
- *Scalable and Secure Website*
- *Zero Downtime in Traffic Peaks*
- *Advanced Functionality*



By deploying the jetNEXUS ALB-X VA, TCS Education System has experienced an improvement in website performance and are better positioned to scale out for continuing growth.

### Company

TCS Education System

### Industry

Education/Training

### Challenges

- Business Growth
- Web Farm Management

### Solution

jetNEXUS ALB-X VA

### Benefits

- Increased application performance
- Improved communication
- Faster web pages
- Improved customer service experience
- Zero downtime
- Flexibility & scalability

### The Full Story | Explosive Business Growth Drives TCS Education System to Evaluate Load Balancing Solutions

TCS Education System is an entrepreneurial, non-profit educational system that includes four separately-branded higher education institutions with multiple campuses nationwide, as well as robust online programming. Each System institution is focused on a distinct discipline such as law, psychology, education, or health sciences - preparing graduates to use their knowledge and skills to serve the greater good.

The main institutional websites are critical to the financial sustainability of the schools; they serve as a primary vehicle for attracting and informing prospective students, while providing a platform for a range of shared technology (such as online learning technology) for current students and other key stakeholders.

“Having these sites accessible with low response time on their [the users] browser speaks favourably about our institutions” Les Waite, Associate Director of System Operations, TCS Education System.

TCS Education System recently initiated a project to consolidate its websites into one web farm, which introduced a major change in the organization’s network architecture. Previously all the websites were on scattered standalone servers which meant there was no clustering.

### The Challenge | To Increase Web Farm Capacity and Provide Reliable Website Access

With the new web farm architecture in place, the IT team at TCS Education System identified a need for a load balancer to deal with the added infrastructure demands. Initially they implemented Microsoft NLB, but found that this had limitations that restricted the performance of the network.

“Microsoft’s Network Load Balancer (NLB) didn’t come close in performance or configuration flexibility to what we needed” Les Waite, Associate Director of System Operations, TCS Education System.

Alongside basic server load balancing TCS Education System required additional functionality; real-time protocol manipulation, data compression, network address translation, traffic shaping, QOS, DOS protection, and SSL offload.

### The Solution | TCS Education System Install jetNEXUS ALB-X VA for Improved Site Performance and Resilience of Web Applications

Having evaluated the jetNEXUS ALB-X and various competitive solutions, TCS Education System fell in favour of the jetNEXUS appliance. They replaced their Microsoft NLB solution with a pair of jetNEXUS Accelerating Load Balancers, deployed in active-active mode to enable a layer of fault tolerance.

They installed the ALB-X VA’s on a Dell storage area network running VMware ESX.

“  
**Fantastic, I am very pleased with the ALB-X VA’s and their performance and abilities. I would recommend their use to anyone who asks!**  
 ”

Leslie Waite |  
 Assoc. Director of System Operations |  
 TCS Education System

“The ALB-X’s granular-ity in configuration, monitoring capabilities and multi-protocol load balancing capabilities were all influencing factors, in addition to its stellar performance!”

Leslie Waite |  
Assoc. Director of System  
Operations |  
TCS Education System

“The jetNEXUS ALB-X VA was clearly the best choice for our environment after careful comparison with similar products. And now after implementing the jetNEXUS ALB-X’s, I couldn’t be happier; my network environment is ‘five nines’ available and jetNEXUS is a big part of why.” Les Waite, Associate Director of System Operations, TCS Education System.

jetNEXUS ALB-X VA currently manages the primary web farm for TCS Education System. There are plans to potentially expand this service to incorporate the student service portals.

Les Waite, Associate Director of System Operations comments on the deployment, “Since we migrated from the Microsoft NLB solution, ease of administration has increased tenfold. The jetNEXUS ALB-X VA’s are highly configurable and the GUI is very intuitive to use”.

“Reliability has increased exponentially since the ALB-X VA’s are in hot standby formation, load balancing traffic to multiple web servers. Our availability of network resources is now ‘five nines’.”

Since deployment, end-users have benefited from a much-improved web browsing experience when accessing the TCS sites for information. Pages load faster, resulting in a more responsive service delivery.

TCS Education System continue to experience strong business growth and with the implementation of their jetNEXUS ALB-X Virtual Appliances, their web infrastructure is ready to meet such an increase in demand. “We are certainly much better positioned to scale out our web farm” Les Waite, Assoc. Director of System Operations, TCS Education System.

### About TCS Education System

Founded in May 2009, TCS Education System is an entrepreneurial, not-for-profit educational enterprise dedicated to training professionals in high-level, applied fields to use their knowledge and skills to serve the greater good.

TCS Education System’s adaptive, sustainable business model—coupled with the social change mission that unifies all their entities—distinguishes TCS Education System from any other educational system today.

For more information please visit [www.tcsedsystem.edu](http://www.tcsedsystem.edu)

“Since deployment, service reliability has increased exponentially - in fact response times are great!”

Leslie Waite |  
Assoc. Director of System  
Operations |

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jetNEXUS is an international supplier of Load Balancing, Application Acceleration and Application Delivery technology. Our product portfolio is accessible to a wide and varied client base, ranging from simple, cost effectively focused solutions to Enterprise-grade application delivery controllers.

We understand that this technology is mission critical and as such, maintain a tenacious focus on the quality of our products and technical support.