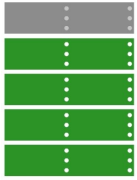


## LONDON SCHOOL OF ECONOMICS EXTENDS ITS ACADEMIC PRINCIPLES TO IT INFRASTRUCTURE MANAGEMENT WITH TURBONOMIC



Maximized Utilization of Infrastructure



Assured Application Performance



Autonomic Control Over Complex Virtual Environment



## SITUATION

LSE has always put engagement with the wider world at the heart of its mission. From its location in the heart of London, the School links communities across the world, from formal academic partnerships to advisory work with governments and international organizations.

Mr. Danny Simpson, Systems Specialist for IT Services, is responsible for IT infrastructure across LSE. The university runs a consolidated data center servicing all departmental IT requirements and consisting of HP blade servers and HP EVA and MSA storage. Having begun the transition to server virtualization 6 years ago, more than 80% of the environment now runs on the VMware vSphere platform and comprises 3 clusters, 20 physical hosts, 564 virtual machines and approximately 38TB of storage.

“The majority of the time we (the technical infrastructure group) effectively provide infrastructure as a service. In many cases we have teams and groups both internal and external to IT Services that run and manage specific Applications/Workloads, we provide the compute, storage, network backbone and OS Layer, and are tasked with ensuring availability and reliability for the underlying infrastructure,” said Mr. Simpson. “With the increase of virtualized servers within our environment, vCenter alone did not give us the intelligence we required to ensure the applications had the resources they needed, right-size them based on actual utilization, and project how the environment would respond as new workloads came online. And, given the expanding scope of the environment, we were looking for technology that could automate and control the infrastructure without requiring as much administrative effort.”

## REMOVING THE UNCERTAINTY

With a rapidly growing virtual server environment and increasing dependency on virtual infrastructure, Mr. Simpson required a solution that would:

- Ensure applications were resourced appropriately
- Project how the environment would handle workload growth

## COMPANY

London School of Economics

[www.lse.ac.uk](http://www.lse.ac.uk)

## CHALLENGES

- Lacked intelligence on resource allocation in growing virtual environment
- Unable to project how the environment would respond to new workloads
- Needed solution that would automate and control the infrastructure with less administrative effort

## TURBONOMIC SOLUTION

- Turbonomic intelligently and automatically senses changes to application demand and adjusts infrastructure supply in real-time to improve utilization and ensure service delivery

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- Determine how to best allocate workloads across physical hosts to ensure efficient utilization
- Identify resource contention and determine actions to resolve
- Enable intelligent automation to remove his team from manual intervention and issue handling

“We required a solution that would remove some of the uncertainty of managing the virtual environment and assist us in keeping the infrastructure optimized – even as we experienced the inevitable change that is typical in a virtualization deployment of our size.”

### SOLUTION

Holonomix, a UK-based Turbonomic channel partner with expertise in virtualization and IT management, introduced LSE to Turbonomic as a unique solution to their challenges. Initially installing in his Test and Development environment, Mr. Simpson chose Turbonomic due to:

- The simplicity and ease-of-use in getting the solution running and delivering value
- The identified specific actions that keep the environment in a healthy state
- Intelligent projections and ideal configurations for the environment based on planned changes
- A strong ROI and cost effective price point

Now that the solution is running, Mr. Simpson has been utilizing many of the advanced control mechanisms to automate actions that maintain the environment in an optimal state. Mr. Simpson states, “We have definitely seen some overall leveling of load across the hosts in that environment and a decrease in performance incidents. We follow most right-sizing recommendations when prompted making necessary changes to VM CPU and memory reservations. As we saw success with the moves Turbonomic recommends and an improvement in overall performance, we have it set to automatically do these migrations as needed. It has worked really well to keep our team efficient rather than having to constantly tune the environment with no real understanding of whether we were doing it effectively.”

### ABOUT TURBONOMIC

Turbonomic delivers an autonomic platform where virtual and cloud environments self-manage in real-time to assure application performance. Turbonomic’s patented decision engine dynamically analyzes application demand and allocates shared resources to maintain a continuous state of application health.

Launched in 2010, Turbonomic is one of the fastest growing technology companies in the virtualization and cloud space. Turbonomic’s autonomic platform is trusted by thousands of enterprises to accelerate their adoption of virtual, cloud, and container deployments for all mission critical applications.

### RESULTS

- *Autonomic platform drives real time performance across a diverse environment*
- *Reduced operating costs through automated, continuous control that eliminated manual administrative tasks*
- *Delivered empirical data showing optimal allocation of resources to critical workloads*

“Turbonomic has given us the ability to better dictate how infrastructure resources are allocated to applications and workloads managed by our application and web teams.”

**Danny Simpson**  
**Systems Specialist for**  
**IT Services**  
**LSE**