



# TRANSPORT FOR LONDON MOVES TO A CONSOLIDATED INFRASTRUCTURE WITH RED HAT

## FAST FACTS

<b>Customer</b>	Transport for London (TfL)
<b>Industry</b>	Public transportation
<b>Geography</b>	United Kingdom
<b>Business challenge</b>	To standardise mission-critical applications to reduce total cost of ownership (TCO) for an entire technology infrastructure
<b>Software</b>	Red Hat® Enterprise Linux®, Red Hat Network Satellite
<b>Hardware</b>	HP x86
<b>Benefits</b>	Standardised and accelerated the customisation and global deployment of applications; Streamlined IT maintenance processes and reduced operating costs; Provided a robust and secure platform that offers superior usability and performance



## BACKGROUND

Founded in 2000, Transport for London (TfL) is the integrated body responsible for London's transport system. Its main role is to implement the Mayor of London's transport strategy and manage the transport services across the Capital, an area that the Mayor oversees.

The services TfL provides include most of London's travel infrastructure, such as London's buses, London Underground, Docklands Light Railway (DLR), London Overground, London River Services, Barclays Cycle Hire, and Victoria Coach Station. In addition, TfL has various responsibilities outside the traditional public transport. This includes the management of London's Congestion Charge and maintenance of 580km of main roads, all of London's traffic lights, as well as regulation of the city's taxis and private hire trade. In addition, the organisation is responsible for making London's transport more accessible for the mobility-impaired and running Dial-a-Ride alongside the London boroughs' taxicard scheme.

This complex, sprawling transport network is responsible for 24 million journeys per day and is managed from a number of offices around London. The technology infrastructure underpinning this service delivery is the very epitome of mission-critical high availability and reliability, and it is crucial to the daily lives of millions of Londoners, as there could be critical implications if any failures took place.

As with any large, highly diverse organisation, the company strives to manage costs while minimising the operational expenses passed on to passengers and stakeholders.

## BUSINESS CHALLENGE

The organisation's long-term goal was to standardise its commodity hardware and consolidate its infrastructure to one enterprise IT platform. TfL had a number of vital requirements for the platform, including ease of deployment, lowered total cost of ownership (TCO), and reduced complexity.

When assessing the technology landscape for consolidation options, the organisation was mindful of its public accountability, both from an expenditure and quality of service perspective. In addition, TfL also kept in mind the challenges it may face in the future with regard to innovation potential and scalability challenges.

"We were keen to maintain a level of self-sufficiency once the technology was deployed,"

said Daniel Demonakis, Wintel and UNIX platform manager at Transport for London. "Internal skills sets were therefore assessed, as were the potential training ramifications. Resilience is critical, however, should there be any need to customise or innovate on the new platform, we had to be certain that we could minimise the need for external consultation or bespoke development."

Risk management was also at the heart of the vendor selection process. TfL had to be confident that any technology partner had the longevity and enterprise-class support capabilities to match its size, scale, and huge public accountability.

**“By standardising on Red Hat Enterprise Linux, Transport for London benefits from increased flexibility and performance, ultimately allowing us to respond with agility to the changing dynamics of our business environment. By reducing the total cost of ownership of our infrastructure estate, we have the assurance that we are truly achieving efficiency gains, without compromising on technical superiority or future potential.”**

- Daniel Demonakis,  
Wintel and UNIX platform manager, TfL

#### SOLUTION

After a review of several technology providers, TfL selected Red Hat Enterprise Linux as its preferred operating system, supporting mission-critical applications across the entire infrastructure. Red Hat Network Satellite provides user-friendly system management and a consolidated view of the organisation's infrastructure estate.

Computacenter, a Red Hat Premier Partner, supplied TfL with their Red Hat requirements. The deployment (including other technologies such as networking) began in 2008 and was completed in 2010, an indication as to the sheer scale of the implementation.

“The Red Hat open source business model was of huge significance when assessing our consolidation options,” said Demonakis. “The reduction in capital expenditure meets our organisational objective of managing costs, ultimately minimising the expense of travel for our daily users.”

#### BENEFITS

A single infrastructure stack, running on commodity x86 servers, allows TfL to deploy the same processes, applications, and management solutions across its entire organisation, without having to invest in complex fine tuning or customisations. This has resulted in less administrative work and greater efficiency of the IT department.

“The migration to Red Hat Enterprise Linux was carried out with minimal disruption to our day-to-day technology processes,” continued Demonakis. “Our business is built on reliability, high availability, and the ability to respond quickly. Throughout the two-year project, our objectives were met. Both Red Hat and Computacenter have worked closely with the team to ensure that our day-to-day business came first, and that we never compromised on the level of service provided to the wider organisation.”

The migration to Red Hat Enterprise Linux has provided a first-step change in the simplification, scalability, and resilience of its infrastructure stack. “For such a vital organisation that touches the lives of millions of people every day, we are now in a much better position to innovate and scale to meet the challenges of the rapidly changing public transport environment,” said Demonakis.

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