

Transport for London Migrates SAP to AWS Cloud as a Foundation for Business Transformation

Transport for London (TfL) is the integrated transport authority responsible for running the day-to-day operation of the Capital's public transport network and managing its streets. The transport authority was looking to modernize their current SAP® estate not only to use more modern infrastructure and databases but also to deliver a more agile and cost-effective SAP platform with which to upgrade to SAP S/4HANA as well as enable further business transformation.

TfL had initially implemented their extensive SAP estate in 2004. It was hosted on-premises and technically managed by their support partners. The systems were complex, having high levels of bespoke code, and consequently required systems and infrastructure to support multi-development tracks. This, along with limited automation, hindered agility and drove up the cost of ownership.

Following an initial assessment of Cloud providers in the marketplace, TfL opted for AWS Cloud due to its maturity in running SAP systems on AWS and market-leading uptime. They selected through competitive tender Lemongrass as their partner of choice to manage the migration, deliver ongoing managed services, and enable TfL to fully access AWS innovations as they are released.

A Move to the Cloud

The migration project included the transition from a shared on-premises data center to the Cloud, which Lemongrass successfully delivered in January 2021. This migration delivered refreshed infrastructure including a move SAP HANA DBS, radically reduced the number of development tracks and delivered high levels of SAP on Cloud automation.

Some of the challenges this project posed included taking over the responsibility of TfL's infrastructure and hosting from another provider. There were also

multiple other vendors involved in the migration of these complex systems that included over 100 business-critical interfaces.



"It's an incredible achievement for TfL to have migrated our legacy SAP systems to an AWS Cloud model. The business transition was seamless with near-zero downtime and disruption. We are very happy with how the project was managed throughout the migration and it was very evident that the Lemongrass team had a deep understanding of SAP in the Cloud and was 100% dedicated to meeting our deadlines. We have achieved immediate savings and established the technical foundations for ERP Transformation and journey to S/4HANA."

*- Kevin McDonald
Head of ERP Transformation*



In addition, the team faced several technical limitations including providing a suitable network solution able to support the migration from the data centers into AWS.

As TfL is a UK public services organization, Lemongrass was required to meet strict procurement processes and standards, security compliance and regulatory requirements for TfL's business-critical components, including a high volume of transactions and high sensitivity payroll.

Lemongrass Solution

Lemongrass migrated 32 SAP and non-SAP applications and 9 environments that required 252 servers across the entire AWS landscape. The Lemongrass team worked closely with TfL throughout the project to deliver Migration and Operate services with functional and business support delivered by TfL and HCL Technologies. AWS was engaged prior to and throughout the migration and provided services and support at appropriate times. The solution included: 16 SAP products including ECC, CRM, SAPRouter, BODS, BI HANA, SLD, BW Java, SRM (which required a unique innovative solution), SAP Fiori®, GRC, Business Objects™, Solutions Manager, ITS, EP, HCI, SLD.

For such mission-critical uptime systems and to enable near Zero Downtime Maintenance (NZDM), TfL leveraged a standardized Lemongrass pattern architecture that uses SUSE for SAP OS clustering. SUSE, as the most widely adopted and proven OS platform for HANA workloads, provides a highly resilient OS foundation for the 6 primary critical applications within TfL's production environment.

One of the goals for TfL's long-term transformation was the migration of their SAP core to SAP S/4HANA. As a high-performance in-memory platform, S/4HANA requires a compute platform like AWS predominantly architected onto the latest Intel® "5th generation" EC2 instances to provide TfL with the best value for in-memory workloads of this type. TfL can now move forward in their longer-term journey to SAP S/4HANA and realize all the potential benefits SAP and AWS.

Lemongrass continues to support TfL and will work with them collaboratively to build their strategic digital vision for the future.

About Lemongrass

Lemongrass is a software-enabled services provider focused on delivering superior, highly automated Managed Services to Enterprise customers. With a portfolio of services designed to deliver the desired outcomes from an SAP transformation, Lemongrass engineers strategies and services that enable the economics, scale and agility of hyperscale computing while unlocking business innovation and controlling the risks and uncertainties. Our customers span multiple verticals and geographies across the Americas, EMEA and APAC.

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