



Royal Opera House | Managed Cloud Services | UK and Ireland | Arts and Culture

# Reliability and automation to answer modern audiences

## Client profile

The Royal Opera House is an iconic London landmark that has been enriching people's lives through opera and ballet for almost 300 years. Since the 1700s, the theater has continually transformed itself. With a celebrated and globally renowned history, it maintains a balance between the 18th and 21st centuries. For an established and traditional organization, the management are progressive in both their thinking and planning, keeping ahead of the digital revolution.

**'As part of our continued growth, an evolution to the mission-critical customer experience solution was required. We needed the maturity of a partner who could help advise, plan and execute such changes to minimize business risk, support our financial needs and integrate with our technology teams'**

**Royal Opera House  
Spokesperson**

## Summary

As an early adopter of Amazon Web Services, The Royal Opera House needed to continue evolving and keep ahead of the technology curve and the needs of modern audiences. Focusing on the evolution of their PCI-compliant front office solution, they put their trust in NTT Ltd. to ensure they were able to embrace automation while maintaining reliability.

## Vision

### Strategic objective: to stay ahead of the market

The Royal Opera House has always kept pace with technology change, including being an early adopter of Amazon Web Services (AWS). However, this required that they keep abreast of the shifting market, especially in the areas of technological capability, people and process. With their core customer experience and ticketing platform deployed on AWS, they decided in 2018 to partner with a public cloud managed services provider with site reliability engineering expertise.

The partnership needed to enable them to evolve their PCI-compliant\* front office solution to deliver an automated and reliable solution.

A key factor for the Royal Opera House was ensuring the partner had an understanding of what was already built, could identify opportunities for optimization and had the maturity to advise them where replacements may be required to ensure the most effective (cost, risk, effort) solution.



**Which technologies?**

- Cloud Computing

**Which services?**

- Public Cloud Managed Services

**Which partners?**

- AWS

**'NTT Ltd. were pragmatic and experienced in both the software/application and infrastructure architecture on AWS.**

They were able to understand our needs and build relationships across both our management, operational and development teams to ensure everyone went in the same direction.'

**Royal Opera House Spokesperson**

**Transformation****Achieving cloud governance while optimizing the AWS platform**

Through a series of cloud strategy workshops, the Royal Opera House identified that NTT Ltd. was the right partner to provide both strategic advisory services along with industrialized operational and technology transformation capabilities.

Following our Cloud Transformation Framework, two initial sprints of work were defined. Firstly, to establish a new strategic cloud governance blueprint and then to onboard and optimize the existing AWS deployed customer experience platform. However, during the initial stages of the second sprint, they recognized that when cost, risk, and effort were taken into account, it would be more efficient to pivot and re-platform to a new solution, also on AWS.

Several key changes were introduced, including the adoption of an infrastructure-as-code design pattern, leveraging the existing their investment in Terraform and an automated application configuration management solution using Ansible. When combined with an overarching infrastructure simplification, application middleware update and improvements to code deployment processes, the result is a fully automated deployment alongside operational support services to ensure maximum reliability.

This re-platformed solution was constructed using a combination of native AWS IaaS and PaaS services to support the achievement of PCI-DSS certification. NTT Ltd. and the Royal Opera House then organized a rigorous testing, acceptance and go-live plan to cut over from the old to a new system.

**Results****Maximize existing investments to minimize TCO**

The partnership leverages NTT Ltd.'s strategic architecture and governance expertise for the use of cloud services, and our 24/7 operational managed services delivered by our site reliability engineers.

The two teams are closely integrated on a technical and development level, ensuring a well governed and mature partnership. This is underpinned by a service governance framework that provides operational responsibility and transparency, while supporting tactical and strategic change.

\*The PCI Security Standards Council develops global payment security standards and supporting services that drive effective implementation for online transactions. NTT Ltd. are an accredited PCI IT service provider.

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