Driving business agility through data center consolidation and cloud transformation.

The Challenge
Looking to consolidate data center locations for 19 business units across North America and the United Kingdom, this global mass media, publishing and entertainment industry client commissioned Cognizant to produce a comprehensive assessment of the feasibility of moving to cloud-based solutions, as well as to drive “as-a-service” (XaaS) models to their distribution and client base.

The project needed to identify not only potential cost savings and performance improvements in the data center operation, but also consider the aspects of improving flexibility and agility that would support a company actively looking to diversify its business interests, and in markets where time-to-market and security are key considerations in product and service delivery.

AT A GLANCE
Companies understand the potential advantages involved in migrating a data center infrastructure to a cloud-based model—not only in terms of lowering operating costs but, more importantly, in driving more flexibility and agility across the business.

The transformation to cloud brings with it efficiencies and standards—for example, in the use of automated tools to analyse workloads, to speed up provisioning and to help deliver new products faster to market—that all add up to making a business more capable of responding quickly and efficiently to market opportunities and customers’ needs.
The Solution

An initial cloud suitability analysis and migration feasibility was commissioned for 1800 applications hosted on 2800 servers, spread across 19 business units and 25 locations in the US, Canada and the UK.

The result was a recommendation for the migration of approximately 40% of the current data center workloads to a combination of co-location and Infrastructure-as-a Service (IaaS) cloud facilities. Cognizant is now engaged in the execution of a phased migration approach.

The benefits of moving to the cloud-based infrastructure have been most noticeable in the speed at which products and services are now delivered, although productivity savings are also significant.

The Approach

Utilising its Cloud Steps Transformation Framework, Cognizant assessed the suitability and conducted a migration feasibility analysis for the 1800 global applications hosted across 2800 servers. Cognizant then produced a set of target state recommendations and developed a phased migration plan. The plan involved transitioning more than 45% of the data center workloads, covering 19 business units across 25 global locations.

Cognizant recognised that standardization and automation would be key to delivering what the customer needed—a flexible, agile infrastructure and delivery mechanism that would reduce costs, react swiftly to fluctuations in business and capacity demand and significantly improve its ability to deliver products and services quickly. Given the client’s fundamental requirements around time-to-market, security and global delivery, a migration path based on AWS cloud-based infrastructure was chosen to support the infrastructure transformation project.

Improving Business Agility Through Standardization and Automation

122+ applications and 445+ servers migrated till date, transitioning them to a combination of ‘landing zones’ based on AWS cloud service as well as VMWare-based on-premises environment hosted across a number of co-location data centers.

This migration allows the client to leverage XaaS (“as-a Service”) cloud solutions to reduce IT and data center facilities costs, improve productivity, implement a comprehensive Security and Compliance framework, and provide additional levels of disaster recovery and backup provision.

Automation was key to the project’s success: introducing automation toolsets allowed standards to be enforced across the delivery process and infrastructure, ensuring PCI compliance and allowing standalone or redundant systems, processes and workloads to be eliminated. Automation and standardization also ensured repeatability of processes and workloads, dramatically improving time-to-market in areas such as new product delivery and allowing further efficiencies to be gained by introducing automated measurement systems that provide detailed analysis across workloads, provisioning processes and application delivery mechanisms.

Project Highlights

- Significant increases in time-to-market delivery of products and services through automation, standardization and rationalization of current infrastructure and delivery mechanisms
- Dramatically reduced in-house data center footprint through migration of over 25% of in-house applications to co-location and cloud till date, plan is to migrate 45%
- Scalable/flexible architecture to satisfy fluctuating business demand, with in-built security, backup and disaster recovery mechanisms
The first phase, which was delivered in a dramatically improved time, yielded significant results by reducing the data center footprint by over 25% and eliminating costs by over 50% for some of the BUss. Employing a flexible, scalable architecture based around a IaaS offering where resources can be switched in—or out, as needed—had the additional benefits of enhanced security and disaster recovery capabilities and the ability to rapidly increase/decrease the infrastructure utilization ‘capacity’ to match the fluctuating demand curve for resources.