Case Study: Energy and Utilities

Centrica Cirrus Cloud IT Reinvention

How a leading global utility company harnessed the transformational power of the cloud at scale and speed to support an agile and responsive business for the digital era.

Centrica is a leading global utility company operating in the UK, Ireland and North America. The Cirrus programme focused on Centrica’s UK business where Centrica has more than 25 million consumer accounts in the UK, supplying residential customers with energy and services. The UK market is increasingly competitive and fast-moving. There has been explosive growth in the number of agile, digital start-ups offering innovative propositions to consumers.

The challenge
To ensure its future competitiveness, Centrica knew that it had to keep pace with the digital disruption reshaping the industry. Like many large businesses, its legacy IT estate was hampering its ability to do that. Centrica struggled to respond rapidly to fast-changing market demands. Its IT was holding the company back from developing innovative products rapidly and operating with the agility essential for success.

Outcomes
- Faster provisioning of technical infrastructure, from 12-16 weeks to ~1 hour.
- 30% batch performance improvement, giving traders better insights into risk and P&L.
- Improved business application performance (e.g., 20%-25% improvement in response time for the intraday application portal).
- Improved customer experience with process simplification (e.g., 50%-60% improvement in performance of the Market Data platform).
- Reduced report generation time from eight hours to less than one hour in the Corporate Broker Commissions application.
- Reduced risk and susceptibility from cyber-attacks and associated losses.

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in today’s digital marketplace. Centrica’s legacy infrastructure and applications were complex, with fragmented systems, processes and tools. Security was a concern, too, with legacy hindering the introduction of new technologies and making it hard to manage cyber risks. And the costs of running and maintaining the current IT estate were high, particularly as considerable expenditure was required to maintain legacy applications and infrastructure that added little new business value.

Centrica had an ambitious goal to be a digital company by 2020 and to harness the transformational potential of the cloud for its legacy IT. As an existing strategic partner to Centrica, we worked with Centrica to come up with an exciting, proactive proposal to enable that vision and undertake an enterprise cloud-based overhaul of its IT infrastructure and applications. It was a big challenge. Not only was this a transformation of unprecedented scale and complexity, Centrica also needed to move fast.

Our approach: modernising IT to the core

This programme elevated our strategic partnership with Centrica to a new level. We proposed a wholesale modernisation of Centrica’s IT estate, migrating to a new hybrid cloud model that would give Centrica the business agility and efficiency it needed. The Cirrus programme was born.

We developed a digital-ready hybrid cloud platform, deploying both public (Azure and AWS) and Cognizant private cloud, as a fully-integrated, secure technology backbone. An ‘evergreen’ approach means that the platform remains consistently up to date with the latest versions of software and firmware. An automation layer that sits across the entire backbone offers Centrica self-service for example provisioning a new server — cutting the time required to adapt or change infrastructure from days and weeks to a matter of hours. Next-generation infrastructure and storage has also dramatically improved uptime and resilience, driving significant gains in throughput and performance of business applications.

Moving an enterprise of Centrica’s scale to the cloud involves a huge number of applications and data. In total, the programme required the modernisation and migration of more than 220 business services; many of them mission-critical and revenue generating. That included one of the largest installations of SAP ISU, a large big data Hadoop platform, as well as vital work management systems and Centrica’s energy, marketing and risk-trading system. There were multiple applications associated with each business service, as well as a vast amount of data; in this case, more than eight petabytes.

Security was also a key concern for Centrica. We worked together to identify existing vulnerabilities and enhance the security posture and controls across infrastructure, data and applications. This was essential to enhance Centrica’s ability to guard against cyberattacks and breaches that could have a major impact on the business and its customers.
Transforming for growth

The move to the cloud, completed in just 20 months, delivered significant operational efficiency, accelerating the provision of technical infrastructure from 12 to 16 weeks to – one hour through self-service and automation. It also enabled considerable performance improvements across multiple business applications. These included a 25%-plus improvement in response time for the intraday trading application portal and 60%-plus improvement in performance of the market data platform. Batch processing times have been reduced by more than 30%, producing better business insights thanks to the computational power available from the new cloud platform. And with more responsive services, customer queries can be answered faster, resulting in higher levels of satisfaction and a better customer experience. But crucially, all these improvements and more have been achieved with a significant reduction in operational costs. By moving away from fixed costs to a consumption-based model, Centrica now has real visibility and control of its costs, paying only for what it uses.

Successfully delivering the £200 million Cirrus programme in less than two years was only possible thanks to the intensely collaborative nature of the relationship between Cognizant and Centrica. Our ‘one team’ approach permeated every aspect of the Cirrus programme, with, at peak, more than 400 people working around the world to deliver the targeted business outcomes. Moving business-critical applications and services without causing any interruptions to business as normal, demanded heightened agility and commitment from the whole team.

Fit for the future

Across the board improvements mean that Centrica is able to respond far faster and with greater flexibility to the demands of an intensively competitive market. The company is able to develop and launch new products faster and compete head to head with the born-digital new-entrants – all supported by a robust, resilient and secure future-proofed infrastructure. The move to a consumption-based model has already realised annual savings for IT operations, with business critical as well as standard processing activities orders of magnitude faster and more efficient.

Mike Young, Centrica Group CIO, summed up the scale of the achievement by saying “What this team has achieved, moving a FTSE top 100 company to the cloud in under two years, is a minor miracle.”
About Cognizant

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