

# AND Digital Helps N Brown Shift Multiple Workloads on to AWS

## Case Study

### Executive Summary

Amazon Web Services (AWS) partner AND Digital helped retail giant N Brown move its disparate legacy systems onto AWS to cut costs, regain control of its systems, improve agility, and speed up new service deployment. It was a big shift for the company, which sees the move as an ongoing journey rather than a one-off project.

### About N Brown

N Brown Group PLC (N Brown) is a leader within the British retail sector and currently employs over 2,000 people across the UK. The company is “size inclusive,” focusing on the needs of the underserved customers who are size 20+ and age 50+. Its brands include Ambrose Wilson, Home Essentials, Jacamo, JDWilliams, and SimplyBe. The group also offers a flexible credit service to customers. It chose AND Digital to help it deal with a wide-ranging and very complex migration of legacy systems onto Amazon Web Services.

### The Decision to Migrate

N Brown was aware of AWS when it first approached AND Digital for help. While it understood the potential of the cloud it was uncertain if it had the capability to make the move successfully on its own. There were also worries about how much could be achieved with its existing architecture.

Diane Roland, Head of Cloud at N Brown, said: “We wanted simplification: our existing infrastructure had served us well, but it did not offer the flexibility to move forward. Code changes were a cumbersome, slow deployment process and there was little visibility if we found issues.”

The move took time to win the confidence of all stakeholders. And it coincided with a big strategic move as the company reinvented itself as a truly digital player. This was no simple



## N BROWN GROUP PLC

**Company:** N Brown Group  
**Industry:** Retail  
**Country:** UK  
**Employees:** More than 2,000  
**Website:** [www.nbrown.co.uk](http://www.nbrown.co.uk)

N Brown Group is a leading British online retail company that is size inclusive, focusing on the needs of underserved customers who are size 20+ and age 50+. Its brands include Ambrose Wilson, Home Essentials, Jacamo, JDWilliams and SimplyBe.

### Challenge

UK retailer N Brown was constrained by fragmented and complex legacy systems. It needed a way to move its disparate technology infrastructure onto a simplified cloud-based system.

### Solution

AWS Partner AND Digital helped N Brown review and assess its existing systems and make a smooth transition to a cloud-based microservices architecture built on AWS reducing costs, saving time and retraining and upskilling its employees in the process.

## Results

- Lower management overheads
- 25 percent reduction in infrastructure costs
- Greater deployment agility to meet demand
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## AWS Services Used

- AWS Fargate
- Amazon Elastic Compute Cloud
- Amazon Elasticsearch Service
- Amazon Elastic Container Service

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*“We wanted simplification; our infrastructure had served us well but didn’t have the flexibility we needed.”*

Diane Roland  
Head of cloud and platform, N Brown

“lift and shift”. N Brown has a varied infrastructure as a result of growth by acquisition and siloed systems built for individual brands. Changing that required moving large, complex databases and a variety of retail, logistics, and customer systems.

Apart from cost, a key driver for the change of direction was a desire to be more agile. Systems had become so varied that rebuilds or feature rollouts took weeks of testing due to different configurations. Feature releases could take up to a month, and updates caused regular, hard-to-solve problems due to differing configurations.

## How the Move Happened

N Brown is a large company made up of a variety of brands with associated retail, logistics, and customer relationship management software. N Brown had 70 Dev Servers within AWS, to ask in developing Hybris. They were never turned off and mainly manually set up. The fragmented nature of the existing infrastructure also led to challenges around configuration, security, and testing.

The first task for AND Digital was to complete a detailed review of the existing architecture and systems and an assessment of the tool stack to see what was required. This was followed by a proof of concept (PoC) to show that N Brown’s main ecommerce application, Hybris, could be automated on the cloud. This six-week project both provided a test of the technology stack and proved to stakeholders the potential benefits of an agile infrastructure.

AND Digital was on hand for the actual day of migration should any unexpected issues arise.

“It was a long day,” Roland said. “I think the sites were down for seven hours. Apart from a few niggly issues, it went really smoothly. AND Digital created a really thorough migration plan. We used the guys who’d worked on it to provide out-of-hours support to make sure there were no outages once we went live.” AND Digital takes pride in ensuring that teams gain the skills to manage the technology put in place. Over two-and-a-half years, nine N Brown technical employees were retained and trained by AND Digital to manage the platforms.

The move also required automation, both to make it workable and to ensure that applications and platforms stayed consistent. N Brown had many data centers linked by virtual private networks [AWS Transit Gateway](#) was described by the platform lead as a “godsend” in reducing this complexity. It went live at exactly the right moment, as the team was working on the challenge of shifting several databases spread over several data centers onto AWS. The team was one of the first in the UK to use the service. Team members estimate it saved them two months of development time.

## The Results

The cloud-based microservices solution is built around a managed AWS Fargate service on Amazon Elastic Compute Cloud (Amazon EC2) with AWS App Mesh and AWS CodeDeploy.

This reduces the management overhead, making it easy to manage and deploy services. All of the company's microservice clusters are built using AWS Fargate, and it's currently used by over 20 services on the websites with many more currently being built as part of the larger piece of work across N Brown's IT environment. One of the services implemented this way is Bloomreach search across its websites, which has helped deliver a 40 percent improvement on search relevance and people who click through from a product listing page to the product details page. Another service is near real-time stock updates for the mobile app, which provides a better customer experience by ensuring out of stock items aren't displayed.

Amazon Elasticsearch Service (Amazon ES) helps with alerting and monitoring around the huge volume of logs, and reduces a known security risk. Instead, changes are made in code, not the server, and all logs are then sent to Amazon ES where they are accessible to the developers.

A key part of making the project really fly was AND Digital's focus on people and its success in upskilling N Brown's own people—many of them long-standing staff members. Roland also praised the consultancy for its support during the migration process as well as being capable of standing up to the company and challenging its thoughts and designs when necessary but also offering alternatives.

## Benefits



Agility and performance



Reduced technical debt



Staff productivity



Lower costs



Greater flexibility

To learn more, visit [www.and.digital](http://www.and.digital) or email [hello@and.digital](mailto:hello@and.digital)

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