



CASE STUDY

EDF Hinkley Point C confidently moves its sensitive data and applications into the cloud

The company leverages the Microsoft Azure platform for secure access and document management powered by Avanade Cloud Factory

Business situation

Breaking ground on a cloud foundation

EDF owns and operates a number of power plants and wind farms across the country, and when the new Hinkley Point C (HPC) station opens in 2025, it will provide an estimated 20% of the UK's electricity.

As the largest construction project currently underway in Europe, EDF has spent much of the last few years planning, digging and pouring layer upon layer of concrete foundation for HPC. During the early planning phases of the project, it was easy for the few HPC employees to piggyback off existing IT infrastructure, sharing systems to manage and submit documents related to project planning and construction permits. However, once HPC received permissions to begin building, the workforce rapidly expanded to include contractors, vendors and international collaborators. Simple tools and borrowed infrastructure were no longer enough to support the needs of this major project; HPC needed more appropriate IT to digitally enable the project.

Time was of the essence. HPC was spending – and continues to spend – upwards of £14 million per day and could not be delayed by slow technology. The company understood that the quickest way to spin up its IT requirements was by leveraging the cloud to migrate existing applications and develop new solutions. However, it had some needs very specific to the nuclear power industry, including intensive security considerations and a data retention policy of 100 years.

To ensure the process was done properly and securely, HPC needed a trusted partner to help choose and implement its cloud platform. After exploring all of its options, the company landed on the powerful combination of Avanade and Microsoft Azure.

Solution

Tackling the challenges of building a secure platform together

Avanade Advisory worked with EDF to discover and understand how the Azure cloud could be used to meet all its needs. The Azure security capabilities were the primary reason Azure was chosen over the alternatives. Throughout the advisory process, our team helped develop the implementation strategy and prioritize the applications that would be migrated to the cloud infrastructure using Avanade's Cloud Foundations methodology.

The first priority was getting HPC's document management application – TeamCentre – hosted in the cloud. This migration posed an immediate challenge. The application was huge, developed using now outdated code and had not been hosted on Azure before. Getting it there, particularly with the security restrictions, would be a challenging undertaking. Through close collaboration with HPC, Avanade helped build both the secure cloud foundation, the processes and the new servers that TeamCentre is hosted on, where documents will be stored for 100 years, as per the outlined requirements. Avanade is utilizing its onshore secure resources based in the UK and leveraging the work already performed for large government contracts where data residency is also a requirement to help design, build and support.

The other critical solution that Avanade helped build was HPC's security cloud, which brings together components from both the company's existing infrastructure and the Azure cloud to control access to information, including data stored in TeamCentre.

The nuclear power industry is a tightly regulated space overseen by the Office of Nuclear Regulation (ONR) for both Sensitive Nuclear Information (SNI) and Export Controlled documentation. The entire system and the way people access it needs to be secure. Failure to comply with ONR regulations would spell major trouble for HPC's ability to continue operations.

CASE STUDY

EDF Hinkley Point C confidently moves its sensitive data and applications into the cloud

The security cloud ensures that many technological safeguards are in place, including personal and location-based access to the appropriate UK data. Throughout its development, the HPC and Avanade security team worked closely with the information security teams.

Due to the size and complicated nature of this project, approvals were required between each stage of the implementation, with priorities and requirements evolving. The team worked in a fast-paced environment where the trusted partnership and open communication between HPC and Avanade overcame the challenges and surprises. It was a real team effort which achieved a successful outcome, and a testament to the strength of our relationship.

Results

A world first

The TeamCentre application is now live in the cloud and being used by HPC employees. This has already improved collaboration and helps ensure compliance with industry regulations. Though the implementation was complicated, the Azure environment has proven to be stable, with few issues experienced with the platform. Avanade now provides support services for the infrastructure from our Azure Operations Center in Newcastle. We have built a factory model to continue to expand the Azure platform on which SNI can securely sit – a world first. This model features automation and templating to accelerate deployment of new solutions and simplify support.

Looking ahead, Avanade will continue to work with HPC to put more applications onto the Azure platform and also look to move some functions offshore to reduce operating costs. As the HPC nuclear power station pushes forward in its journey toward full operation over the next few years, Avanade is excited to continue our relationship with HPC, exploring the opportunities and challenges that are waiting in the cloud.

About EDF Hinkley Point C

EDF is helping Britain achieve Net Zero by leading the transition to a cleaner, low emission electric future and tackling climate change. We are Britain's biggest generator of zero carbon electricity, meeting around one-fifth of the country's demand and supplying millions of customers with electricity and gas. With around 5 million accounts, EDF is one of the largest suppliers to British homes and businesses and a leading supplier of innovative energy solutions that are helping businesses become more energy independent. All of our home and small business customers get energy tariffs backed by zero carbon electricity as standard. The first new nuclear power station to be built in the UK in over 20 years; Hinkley Point C in Somerset will provide low-carbon electricity for around 6 million homes, create thousands of jobs and bring lasting benefits to the UK economy. Construction and operation of Hinkley Point C will create 25,000 employment opportunities, up to 1,000 apprenticeships and 64% of the project's construction value is predicted to go to UK companies. Making a significant milestone in the revitalisation of our nuclear power industry, Hinkley Point C will make a major contribution to the UK's move to reduce carbon emissions.



About Avanade

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences on the Microsoft ecosystem. Our professionals bring bold, fresh thinking combined with technology, business and industry expertise to help make a human impact on our clients, their customers and their employees. We are the power behind the Accenture Microsoft Business Group, helping companies to engage customers, empower employees, optimize operations and transform products, leveraging the Microsoft platform. Avanade has 39,000 professionals in 25 countries, bringing clients our best thinking through a collaborative culture that honors diversity and reflects the communities in which we operate. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com

©2020 Avanade Inc. All rights reserved. The Avanade name and logo are registered trademarks in the U.S. and other countries. Other brand and product names are trademarks of their respective owners.

North America

Seattle
Phone +1 206 239 5600
America@avanade.com

South America

Sao Paulo
AvanadeBrasil@avanade.com

Asia-Pacific

Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

Europe

London
Phone +44 0 20 7025 1000
Europe@avanade.com