Privitar Helps NHS Digital Improve Health Data Use and Protect Patient Privacy with AWS

Privitar helps NHS Digital improve healthcare, protect patient privacy, support a tenfold data increase, and expand its services by partnering with AWS. The company provides software designed to enable enterprise-wide data-privacy protection. Privitar helped NHS Digital deploy Privitar Publisher, a solution that runs on the AWS Cloud.

Helping Healthcare Organizations Do More with Patient Data
As more and more organizations seek to use data analysis to enhance their business, they must meet their obligations and comply with increasingly stringent data-privacy regulations. Privitar, a global provider of data-privacy software solutions, is helping such organizations make use of sensitive information and stay in compliance by better protecting their data. “Our customers have large amounts of patient or customer data and other sensitive information. We enable them to safely use, analyze, and share this data in an efficient and compliant manner,” says Jason du Preez, CEO of Privitar.

Running Patient De-Identification and Data-Linking Solutions on AWS
Privitar has seen a significant increase in demand for its solutions on the Amazon Web Services (AWS) Cloud over the past four years. “Our customers are moving to the cloud, so it is imperative we offer cloud-based services,” du Preez says. “AWS provides scalability and elasticity, which are big enablers for our customers, who are typically dealing with significant amounts of data.”

NHS Digital, a Privitar and AWS customer, provides information and technology services for the National Health Service (NHS) and is the national safe haven for health and care information in England. NHS Digital’s new Data Processing Services (DPS), which enables data to be linked across different care settings and geographies, needed to gather patient data from multiple disparate sources and link the data in a controlled manner while upholding citizens’ data rights.

As a result of an Official Journal of the European Union (OJEU) procurement process, NHS Digital selected Privitar Publisher, a software solution that provides data-privacy engineering techniques to create de-identified data that can be used for analytics. NHS Digital uses this solution to support a new de-identification process, known as De-ID, that protects patient privacy by de-identifying patient records consistently. Publisher’s SecureLink feature, a secure data-linking system that can be used by organizations to combat data silos, was particularly important because it allows central organizations to join data from multiple contributors while not attributing it to a specific contributor. These products are part of a solution that will enable NHS Digital to create high-quality, longitudinal, linked datasets for health informatics and improve healthcare outcomes while maintaining patient privacy.

Scales to support a tenfold increase in the volume of patient data.

AWS Services Used
- Amazon Elastic Compute Cloud (Amazon EC2)
- AWS Secrets Manager
- Amazon DynamoDB

Benefits
- Improving healthcare by delivering more-complete patient data
- Protecting patient privacy for millions of patients
- Supporting tenfold increase in data
- Expanding global reach through AWS partnership

About Privitar
Privitar, based in London, England, creates software designed for enterprise-wide privacy protection, giving global organizations the power to control, use, and share data safely. Privitar is an AWS Advanced Technology Partner and a member of the AWS Public Sector Partner Program.

About NHS Digital
NHS Digital provides information and technology services for the healthcare system in England. The organization has a team of information analysis, technology, and project management experts who create, deliver, and manage the crucial digital systems, services, products, and standards upon which healthcare professionals and citizens depend. NHS Digital’s vision is to harness the power of information and technology to improve both health and healthcare of English citizens.
Privitar’s primary solutions run on AWS. Privitar Publisher uses Amazon Elastic Compute Cloud (Amazon EC2) instances to dynamically scale up or down based on compute demand, stores its configuration on the Amazon Relational Database Service (Amazon RDS) while also integrating with the Amazon DynamoDB database service. Publisher also uses AWS Secrets Manager to protect secrets required for application access.

Privitar is also an Advanced Technology Partner in the AWS Partner Network (APN) and a member of the AWS Public Sector Partner Program. “Our partnership with AWS benefits our joint customers who are looking to use the cloud to accelerate their data platform roadmaps while taking an uncompromising position on data privacy,” says du Preez.

Improving Healthcare, Protecting Patient Privacy
By taking advantage of an AWS-based deployment of Privitar Publisher, NHS Digital has standardized and automated its processes for matching patients with records, enabling the production of more-complete and usable data overall. “The Privitar solutions, running on AWS, give us a single, consistent way of de-identifying data across our organization,” says Stuart Gunson, senior project manager for NHS Digital. “As a result, we can distribute the data in a controlled way and more easily link data across different health and care settings. This will ultimately improve care for patients by giving our customers a more complete picture of health and care. The use of a single de-identification tool gives us the potential to link data sets across the NHS. The ability for us to link to previously siloed data assets is critical in supporting better health planning and commissioning, public health, and research.

The Privitar solution de-identifies patient data, encrypts sensitive attributes early in the data lifecycle and keeps them protected. “We can protect patient privacy, which is key, while also making the de-identified data available for purposes such as research and analysis,” says Gunson.

Scaling to Support a Tenfold Data Increase
NHS Digital can support a huge increase in data volume by relying on a cloud-based system. “We need to process 10 times the amount of our largest data collections, and our on-premises systems are running out of compute capacity to support that,” says Gunson. “We now have the scalability and on-demand processing power we need to handle this volume, as well as meet future growth.”

Extending Global Reach by Partnering with AWS
Privitar has grown its business globally through its participation in the AWS APN program. “By being an AWS Advanced Technology and Public Sector partner, we can engage with AWS on events and other initiatives for joint customers and prospects, which is helping us extend our reach globally,” says du Preez.

Privitar also plans to obtain additional AWS security and data analytics competencies. “This will help us better serve our customers and further increase their confidence in our solutions,” says du Preez. “Our goal is to become a best-in-class extension of AWS strategic services around advanced analytics and machine learning, and we will achieve that by continuing our partnership and collaboration with AWS.”

To learn more, visit aws.amazon.com/partners/public-sector.