RESEARCH

Genomics England gave the 100,000 Genomes Project a secure home for its data

Genomics England needed secure, resilient storage for the data behind the 100,000 Genomes Project, with room to grow and access for many research and computing organisations. It chose Crown Hosting and separated storage from compute, so different computing providers can connect to where the data is held.

100,000

Whole genomes from NHS patients and their families, the project's sequencing goal

110 GB

Typical size of one genome file, held in storage kept separate from compute

On demand

Capacity that grows with the programme, with the flexibility Genomics England needed



GENOMICS ENGLAND

ABOUT GENOMICS ENGLAND

Genomics England was set up in 2012 by the Department of Health. With the consent of participants and the support of the public, it is creating a lasting legacy for patients, the NHS and the UK economy through the sequencing of 100,000 genomes.

CLIENT	SECTOR	WHAT THEY USE
Genomics England	Research	Secure storage for genomic data, separate from compute

01 THE PROBLEM

Finding the right data storage was a critical part of building the programme's infrastructure. The organisation needed to move quickly on storage without rushing its computing decisions.

- **Scale.** Around 110 gigabytes per genome file, across a programme of 100,000 genomes.
- **Sensitivity.** Genetic data raises real questions about why it is stored, where and how.
- **Access.** A wide range of researchers, academic and industrial, would need to reach the data.
- **Timing.** Storage had to be secured quickly, before the computing infrastructure was bought.
- **Standards.** The location had to be highly secure and meet stringent government standards.

02 THE SOLUTION

One of Genomics England's first decisions was to separate computing from storage. Crown Hosting provided the secure location for the storage.

1. **Choose a connected location**
   Crown Hosting's Corsham campus sits among leading computing providers, giving strong connectivity. Corsham is developing into a hub of healthcare computing.
2. **Separate storage from compute**
   Various computing providers can connect to where the data is housed, so compute choices stay open.
3. **Install at pace**
   Due diligence completed in advance made set-up faster. Several lorries of equipment arrived and passed security without logistical problems.
4. **Grow on demand**
   Capacity is available as the programme grows and develops.

03

THE OUTCOME

- **Storage secured quickly.** The data infrastructure was set up smoothly, with flawless project management.
- **Open to many providers.** Separating storage from compute lets several computing providers connect to the data.
- **Room to grow.** Flexibility and capacity on demand as Genomics England develops.
- **Strong value.** Genomics England rated Crown Hosting the best value of the options it considered.

> "The experience of getting the Genomics England data infrastructure set up at Crown Hosting was entirely painless.
>
> **Genomics England**
> Spokesperson name to confirm

IN THEIR WORDS

"We had several articulated lorries of equipment arriving on site and going through security which, in any other scenario, could have been a massive logistical problem. But thanks to the professionalism and experience of the Crown Hosting team, it wasn't."

Genomics England

"What we have here is genuine flexibility and capacity on demand which, as Genomics England grows and develops, is a key consideration for us."

Genomics England

WHY IT MATTERS

Research data at national scale needs somewhere secure, connected and able to grow. By keeping storage separate from compute, Genomics England kept its options open as research computing changed, on infrastructure held to government standards.

TALK TO US

Get in touch

If you would like to understand more about how Crown Hosting can save you time, money, carbon and energy, please get in touch with a member of our team today.

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