

A total solution for genomic data management: one seamless platform for simplicity and speed

Find out how the FlexPod® data center solution from NetApp and Cisco conquers today's high-volume genomic data management challenges and provides a proven, reliable structure that speeds collaboration and insights.



The exponential rise of genomics

Genome sequencing began as a lengthy and costly endeavor. But with automation, work that used to take years can now be accomplished in little more than a day. As sequencing costs have plummeted, public interest has skyrocketed.

Declining costs, increased funding, and new application uses have resulted in an explosion in the number of human genomes sequenced and files that each lab handles. **Although this exponential rise brings exciting opportunities, it also comes with complex challenges.**



Time it took to sequence the 1st human genome:

13 years

1990–2003¹



Cost of sequencing the 1st genome:

\$2.7B

Roughly \$5B in today's dollars¹



Cost per genome as of 2020:

\$300²

With great data comes great challenges

Greater storage demands



The volume of genomic data more than doubles every year.³

- Amount generated by 2019:

6.2EB

That's greater than the amount of information on YouTube!

- Amount that new sequencers can generate per day:

1TB



A single uncompressed whole human genome sequence requires 100GB of storage.⁴

- Human genomes sequenced in 2015:

250K

- Projection for 2025:

Up to 2B

That's an increase of almost 800K% in just a decade.⁵

High storage costs



Clinics need to store lots of data—and store it for a long time.

The call for faster processing



Each lab produces vast amounts of files each year!

The need to share data



Data sharing should be seamless and safe, on premises and in the cloud.

How FlexPod helps give you the genomic data management structure you need

With FlexPod, you can:

Simplify data management.

- Move to a common storage platform for facilitated genomic data sharing on premises and in the cloud.

Mitigate high storage costs.

- Reduce your Opex and Capex. In 2019, the typical FlexPod customer saw a reduction of up to 34%.⁶

Gain robust safety features.

- Be HIPAA and GDPR compliant. Follow privacy standards such as the database of Genotypes and Phenotypes. Leverage always-on, AI-driven privacy compliance controls along with native security and encrypted transfer.



Eliminate storage silos that slow down discovery.

- Manage and access data seamlessly from edge to core to cloud. FlexPod integrates with all major public clouds.

Enable rapid data processing to accelerate insights.

- Leverage innovations such as flash and NVMe. With FlexPod for AI, gain a purpose-built Cisco Rack Server that integrates GPUs and high-speed interconnect technology with fast networking.

Increase collaborative efficiency.

- Share data faster through the cloud, and boost collaboration across departments, institutions, and geographies with a data fabric delivered by NetApp.

1-call help

for the entire stack

185+

reference architectures

41% to 60%

reduction in downtime⁷

With FlexPod as the backbone of your genomic data management operations, you'll have everything you need to manage your current and future data and to start seeing faster insights.

To learn more, go to [FlexPod.com](https://www.flexpod.com).

Sources

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