



## Genomics Pipeline Acceleration OnDemand

On-demand and at scale, with the power of the cloud

Today's research institutions, medical centres, and research labs are looking for agility, easier management and access to enhanced resources and capacity to enable the increased demand for next-generation sequencing (NGS).

Our Genomics Pipeline Acceleration OnDemand solution provides a secure platform that significantly accelerates genomic analysis by making use of hyper-scale infrastructure in the cloud and tailored solutions.



Utilise your existing tools, applications and workflow manager

No more waiting in a queue to perform your analysis

Run processing at scale, directly from your laptop

Analyse your data with a range of pre-installed analytics tools and intelligence tools such as R, Python, Jupyter, SparkR, Power BI Desktop, H2O, Rattle, Vowpal Wabbit, TensorFlow, Caffe

### Consolidate your network

- Decrease the time to analyse genomic data, enabling larger studies and a wider research scope
- Overcome bottlenecks of existing infrastructure to deliver answers faster and allow more time for final analysis

**The cost of sequencing a human genome: \$100m in 2001 to \$1,000 in 2016, and is now trending to \$100**

### Understand the Impact

- A cost effective, trusted and high performance platform for genomics workloads, including High Performance Compute, Blob Storage and Advanced Analytics (R, Hadoop, Spark and ML)
- Sustainable storage and processing power flexes with demand, reducing overhead whilst advanced analytics capability can run in thousands of nodes in parallel

**Estimated human genomic data will generate 40 exabytes per year by 2025**

### Plan Smarter

- Azure provides the supercomputing and storage resources often difficult to access by independent researchers and institutions
- Use existing tools, applications and workflow managers to process and analyse data

**More researchers and clinicians require faster results in order to provide answers sooner**

*"Microsoft Azure is enabling us to keep up with the data deluge in the DNA sequencing space, We're not only analyzing data faster, but analyzing it more intelligently."*

- Wu Feng, Professor of Computer Science, Virginia Tech

## Our Genomics Pipeline Acceleration OnDemand solution takes advantage of the high performance capabilities of Azure to deliver actionable insight faster than ever before.



### Security and Compliance

- Azure offers the most comprehensive set of certifications and attestations of any cloud service, ensuring organizations are compliant with national, regional and industrial requirements.
- Privacy, Security, Identifiers and Codes related to PHI (access to patients' "Protected Health Information") are covered extensively by HIPAA compliance, along with ISO 27001, ISO 27018, FedRAMP, SOC 1 and SOC 2 compliance necessary to provides the most secure and reliable High Computing cloud Service.



### Complete Genomics Ecosystem

- Secondary and tertiary analysis is accelerated by the power of high performance infrastructure and GPU capabilities that fast track throughput of genome alignment and variant calling right to actionable insight to the researcher.
- Researchers are enabled with an exponential growth in capacity and speed to conduct genomic analyses removing traditional barriers of scale.

### Our promise to you

Genomics Pipeline Acceleration OnDemand provides a high capacity, secure and compliant solution to accelerate innovation in genomics.

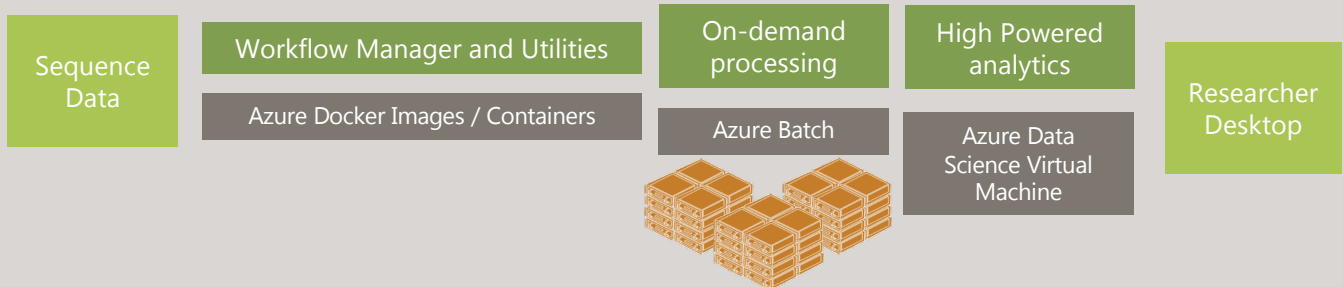
### An offer to get you started

Bring your own workflow and utilities to the cloud

- Set up of cloud environment for processing
- Deploy a sample of your own pipeline and utilities on your choice of workflow platform; Snakemake, Galaxy or Cromwell, and more.

Get Started from  
\$15,000

[info@bizdata.com.au](mailto:info@bizdata.com.au)



### Tangible Benefits / Desired Outcomes

- Sequencing data computed faster than previous processes
- Richer collaboration between researchers and organisations
- Genomics workloads are automated, dramatically improving the analysis of cycles, and ensuring the quality of data available.

### Why BizData?

BizData is an internationally award winning Data Analytics Agency. We specialise in rapid delivery of Artificial Intelligence, Big Data and Business Intelligence solutions, leveraging Microsoft and Open Source technology. BizData is widely recognised for excellence in innovation and implementation of customer solutions that spearhead a data-driven culture for everyone.