



LMX CLOUD

SIMPLE LIFE SCIENCE ORCHESTRATION

WITH LMX CLOUD, DEFINE TECH PROVIDES AN END-TO-END INFRASTRUCTURE FOR GENOMIC RESEARCH FACILITIES, INCLUDING BOTH HARDWARE AND SOFTWARE THAT ENABLES RESEARCHERS TO SPIN UP HPC CLUSTERS AND/OR PROVIDE ACCELERATION TO THEIR EXISTING DATASETS - ULTIMATELY INCREASING TIME TO INSIGHTS.

WHAT IS LMX CLOUD?

Scientific discovery is dependent on data, which has led to the term Science as a service – which enables cross collaboration between multiple institutes and research centres where users can all benefit from shared access to vast datasets to run their simulations on, in an effort to develop new drugs, cure rare diseases, research hereditary genetic disorders or try to understand the structural variations of genomes across diverse datasets.

The progression of data analytics and the vast growth of the datasets themselves within life sciences has had a knock on effect on compute, storage and application requirements for life science workloads. The backbone of any progressive life science institute is a not only a highly performant and scalable HPC infrastructure, but a platform that supports collaboration in a secure and cost effective manner. Which is why life science institutes are looking to the Cloud – more specifically Hybrid Cloud.

MIGRATE TO A HYBRID CLOUD

With LMX, we can support research institutes migrating from public to private or hybrid cloud which is optimised for HPC. LMX Cloud is an AI ready end to end infrastructure orchestration platform optimised for secondary and tertiary data analyt-

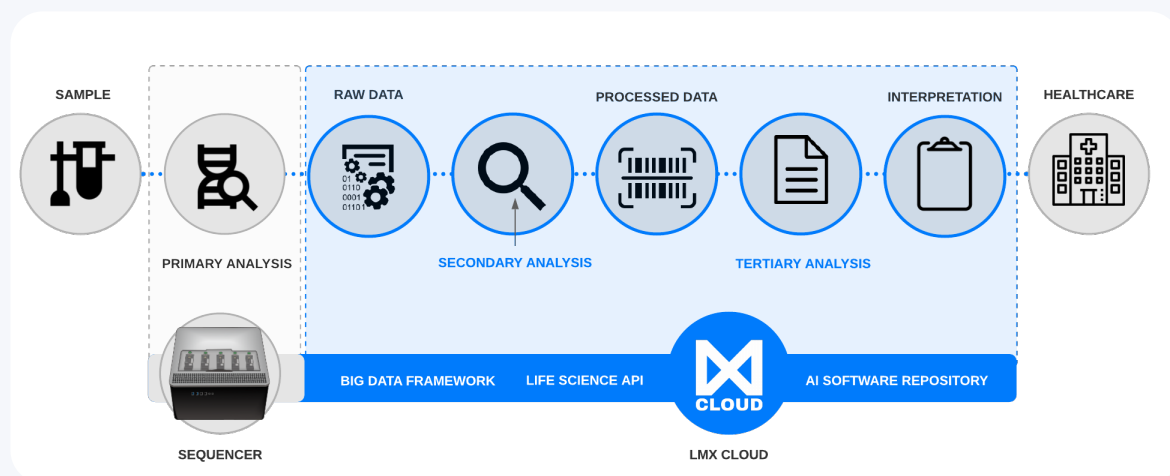


Fig 1. LMX CLOUD is an AI optimised orchestration platform for secondary and tertiary analysis

ics, that can support everything from preliminary research to large scale simulation and analysis.

We don't recommend a purely public cloud strategy for Life Science – simply because of the sheer cost of scaling. In an industry where your dataset is continually expanding, your need for resource will continue to grow – and so will the cost of your public cloud requirements. With LMX you can run your workloads on a secure and cost effective private cloud and burst to public only when you need to.

PUBLIC CLOUD BURSTING

Our platform includes the ability to burst to public cloud as and when demand dictates – saving you the cost of running your infrastructure solely in a public cloud but affording you the option to extend your system out temporarily should your data processing requirements suddenly increase.

HPC AND AI OPTIMISED

Our platform includes hpc-optimised capabilities such as secure dedicated clusters that can support collaborative research, virtualised GPU's for accelerating analytical workloads (eg. Genomics pipelines) , cloud-native workstations for high-resolution image analysis as well as the integration of AI technologies such as Kubernetes, and Spark/Hail for GATK analysis.

LIFE SCIENCE SOFTWARE REPOSITORY

Our built-in software repository is a portfolio of thousands of containerised life-science frameworks, applications and pipeline analytics tools that come pre-integrated and ready to run.

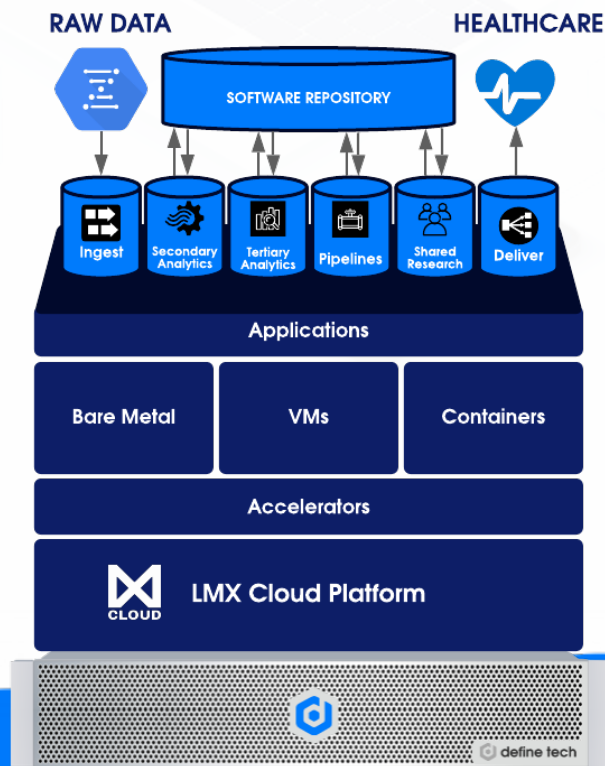
REDUCED STORAGE COSTS

We can help to reduce your storage costs using secure, transparent compression techniques that decreases the size of your datasets and transfer times by up to 90% withing compromising data quality.

With LMX Cloud, you can enjoy cloud-like capabilities with the security of your own internal infrastructure and leverage Public Cloud only when you need to. We support the full stack from infrastructure provisioning, right through to your HPC environment with integrated applications for running all of your life science workloads. Our platform can dynamically adapt and evolve depending on your changing user requirements. Future-proof your life science infrastructure with LMX Cloud.

KEY FEATURES

- Containerised Software Repository
- NVIDIA Clara for Genomics (Parabricks) pre-integrated
- GPU-acceleration and vGPU
- Secure Collaboration
- A single GUI based management portal
- Simple Migration
- Burst to Public Cloud
- AI Technologies and frameworks built-in
- Dynamic Scaling of resources
- Job Scheduler (SLURM) Built-in



For pricing or to discuss your requirements: