Research Accelerator Portal For Healthcare

Streamlining & Accelerating Access to HPC & AI/ML Resources In The Cloud

LIMITATIONS OF ON-PREMISE HPC SOLUTIONS

Healthcare organizations and research agencies face significant challenges in accessing high-performance computing (HPC) and AI/ML resources. On-premise systems often lead to long wait times, rigid scalability, and high operational costs. These challenges are often made more complex through a lack of highly specialized in-house expertise and complex security requirements, which further slow progress. These constraints make it difficult to run advanced simulations, process massive clinical datasets, and accelerate innovation, resulting in solutions that are costly, hard to maintain, and resource-intensive.

With these challenges in mind, our team at Improving has partnered with Google Cloud to develop the Research Accelerator Portal to assist you and your team in accessing and managing high performance computing (HPC) clusters on your hyperscaler of choice.

Our **Research Accelerator Portal for Healthcare** will:

- Streamline research through easy access to the latest HPC & AI/ML resources
- Scale efficiently as your need for HPC resources increases.
- Lower your total cost of ownership

ACCESSIBLE HIGH PERFORMANCE COMPUTING

Improving created the Research Accelerator Portal to provide healthcare researchers with a solution that streamlined their access to HPC computing resources on Google Cloud. This portal offers automated provisioning of secure cloud-based scientific computing environments, as well as project lifecycle management and cost control capabilities. It uses pre-configured project templates to quickly (within an hour after approval) provision AI, ML, and high-performance computing resources for the following applications:

- AI & ML-powered research and analysis
- Genomics and Bioinformatics Research
- Medical Imaging and AI/ML Diagnostics
- Clinical Data Science and Predictive Analytics

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COMPLIANT AND SECURE

The Portal complies with the **ITSG-33 PBMM** security control profile (and can be modified to align with other security profiles and protocols), which includes the application of the least privilege principle to service accounts used for deployment automation, as well as the hardening of Internet-facing endpoints and access control with full support for third-party identity provider services.

To configure and deploy a wide range of scientific computing environments for HPC, AI/ML, and data science applications, the system makes use of cloud-native features such as containerized workloads, serverless functions, asynchronous messaging and Terraform-based parameterized templates.

THE IMPROVING DIFFERENCE

Our Research Accelerator Portal, which leverages the latest technologies in AI/ML and cloud computing on GCP, has been utilized by researchers across various healthcare agencies and has provided a range of benefits that include:

- Ability to deploy and operate the Portal in PBMM-compliant cloud environments
- A frictionless workflow to request and configure cloud-based resources
- Managerial approval workflow and visibility on project resource use
- Single-click deployment of pre-configured scientific computing environments
- Project lifecycle management tools, enabling cost-efficient use of cloud resources
- Automated alerts as approved budget spend reaches specific thresholds
- Easy-to-use budget reporting and budget management tools

BOOK A DEMO OF THE PORTAL!

Ready To See The Research Accelerator Portal In Action?
Click To Book Your Demo Today!