

Solution brief

Deliver more innovation with agile, easy to use HPC services



HP Helion Self-Service HPC Solution

Increase the productivity of your organization by expanding their ability to use agile HPC resources to rapidly deliver new products and insights using self-service HPC from a private cloud with enhanced security.



Competitive agility

- Deliver more products and innovation to market, faster with HPC accessible to more staff
- Accelerated time-to-value with out-of-the-box integration

Scalable performance and security

- Built on clustered infrastructure that scales according to your needs
- Integrated with LDAP and role-based access to protect your differentiation

Open, efficient management

- Achieve resource utilization and priorities with automated workload management
- Common, open source cloud architecture based on HP Helion OpenStack
- Leave management and CAPEX to the HP experts or manage it yourself

The need for easy access to flexible HPC resources

Global competition is driving organizations to deliver new, innovative products to market faster and analyze data quicker and easier. To do this, high performance computing (HPC) is indispensable in providing the power and scalability needed for product research and design, or the ability to analyze massive amounts of data—structured and unstructured—for increased business insight and competitive differentiation.

But organizations looking to expand their use of HPC realize that a number of barriers lie in their path. A steep learning curve makes it difficult to quickly bring an expanded user base—who could benefit from HPC—up to speed on using it. Managing the tuning and security of HPC platforms is resource and expertise intensive. And the cost of deploying or scaling HPC platforms is often prohibitive.

Now all that has changed. HP Helion Self-Service HPC Solution allows you to focus on your business and innovation without having to worry about setting up and managing your HPC environment.

An agile, scalable HPC solution with easy access

The HP Helion Self-Service HPC Solution delivers the HPC resources you need, when you need them, and to whoever needs them, all simply automated through a private cloud. The optional managed service model lets you pay-for-use and stay focused on what's important to your business—innovation.

Leveraging HP's high performance computing cloud solutions means that you no longer have to worry about the complexity—or cost—of planning, deploying, scaling or managing a platform that is key to creating and delivering innovative products or analyzing key data.

A customizable, self-service portal allows an expanded user base across more projects to easily and quickly access the resources they need to accomplish their work. This increases their productivity and reduces the need for extensive training before a user can add value.

And since the solution is based on HP Helion OpenStack®, its common, open architecture enables efficient management with other IT cloud environments, and extensibility to public clouds for additional capacity in the future.



Delivering your killer app

Whether you're just starting out in the world of HPC or have been using it for decades, you know that you need it to meet the demands of your business. The insatiable drive for increased Big Data business insights, rapid innovation, and the accelerated design and development of new solutions demands a high-performance computing infrastructure that's easy to use and manage. This is the "killer app" by which your business will thrive.

The HP Helion Self-Service HPC Solution offering extends the value of both new and existing investments by providing an HPC platform fine-tuned for performance, scalability and ease of use.

Intuitive interface for ease-of-use

A self-service portal with a user friendly interface makes HPC as easy to use as your familiar applications. This makes key HPC resources accessible to more users across your organization by reducing the complexity of previous HPC environments.

Each project or group can access their own tailored portal environment with full automation of complex HPC services customized to their specific needs. This makes it easy for engineers, scientists, or analysts to request resources and submit jobs without extensive training. Automated provisioning decreases errors and provides resources on demand according to the policies implemented.

Accelerated time-to-value

Because HP Helion Self-Service HPC is delivered via the cloud with out-of-the-box integration of popular ISV applications, your path to easier, more agile and more scalable HPC services to meet the changing workload and competitive demands of your business can be quick and hassle-free. And the solution provides the ability to quickly and easily extend the delivery of HPC application services needed for specific groups to more users for increased innovation.

Scalable performance at your fingertips

With the HP Helion Self-Service HPC Solution, you no longer have to worry that adding more projects, users or compute intensive workloads will slow down or overburden your HPC platform. Out-of-the-box integration with either our HP Apollo Systems for rack-optimized scale-out converged infrastructure for hyperscale HPC, or our preconfigured, factory-built HPC cluster infrastructure, helps achieve the performance you need, when you need it. Integration with accelerators and co-processors provides the flexibility to meet the needs of your different workloads. Built-in workload management provides more efficient resource utilization and enables you to meet your service-level agreements.

Enterprise security to protect you

Role-based access and LDAP integration controls and protects your intellectual property by governing the access to HPC applications, resources and data. This helps you to provide access to more users and staff—both inside and outside your organization—who need to collaborate on projects and share valuable HPC resources. The self-service portal allows you to create service catalogs with HPC applications and resources associated with user access levels according to the needs of each project or user group.

Open, efficient hassle-free management

The HP Helion Self-Service HPC Solution increases administrator efficiency for optimizing utilization according to workload priorities and managing complex HPC resources and application licenses. Graphical dashboards and automated actions makes it easy for the users of the self-service portal and HPC administrators to monitor, add, provision, or scale HPC cloud resources—physical or virtual—behind the scenes with zero user impact. Usage management capabilities simplify usage reporting and help align your HPC costs with each department's HPC computing budget or limits.

You also have the option of leveraging HPC experts from HP to deploy and manage your HPC solution instead of managing your own HPC platform. This can reduce management headaches, CAPEX, and expertise investment, allowing you to pay for HPC services as you consume them so you can stay focused on your primary business objectives.

Accelerate innovation and deliver more, faster

With organizations constantly looking for ways to increase their delivery of differentiated products in a competitive, global market, speed is the key to success.

By creating a scalable, high-performance HPC platform that's easy to use and manage, you can have that "killer app" that can make all the difference. HP Helion Self-Service HPC gives you the agility you need to accelerate your delivery of innovative, high-quality products or business insights by extending HPC to more of your staff for increased productivity. Why not investigate further to find out what it can do for your business? We know you'll like what you see.

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