

FAQ

Lenovo TruScale for HPC

High Performance Computing (HPC) and the real-time data analytics it enables have accelerated vital research projects, streamlined business processes, and automated workloads in industries around the world. The possibilities of what organizations can do with HPC-enabled data analytics are almost limitless.

But organizations don't operate their businesses in a limitless world. Realities like IT budgets and staff headcounts make the design, implementation, maintenance, and expansion of an HPC infrastructure a challenge.

Why? It's because building and maintaining an HPC datacenter is costly and complicated.

- Spending on HPC (both on-premise and cloud) grew from \$30.6 billion in 2020 to \$34.8 billion in 2021 – an increase of 13.8 percent.
- IT professionals responding to a McKinsey 2019 Global Data Transformation Survey reported that an average of 30 percent of their total enterprise time was spent on non-value-added tasks around datacenter issues like poor data quality and availability.

Fortunately, Lenovo offers Lenovo TruScale for HPC, an HPC-as-a-Service (HPCaaS) solution. By using a pay-as-you-go model for HPC capacity, TruScale for HPC gives customers access to the leading-edge HPC hardware technologies and IT consulting services they need to design, implement, and maintain an HPC datacenter that can grow to support future business needs.

1

How is using an HPCaaS service model different from having an on-premises HPC datacenter?

Building and maintaining in-house HPC infrastructure is a challenge for the unexperienced and can lead to expensive overprovisioning of hardware and IT staff. The financial flexibility of the HPCaaS model lets organizations implement HPC using a consumption-based payment system that reduces upfront capex expenditure for datacenter hardware while also greatly reducing the need for an in-house IT team to keep the datacenter running and growing. Customers can also rely on the Lenovo team to support their datacenter and help expand its capabilities as their needs evolve over time.

Smarter
technology
for all

Lenovo

2

How is using an HPCaaS service model different from having a cloud-based HPC datacenter?

While cloud-based HPC solutions offer flexibility and the ability to get an HPC solution up and running quickly, they are not a fit for many customers. Delays in data processing due to the time required to move data back and forth to the cloud are unacceptable in fast-paced environments where the difference between failure and success is measured in nanoseconds. Additionally, customers with strict data security needs may require their vendors adhere to data/security/personally identifiable information (PII) compliance policies that prohibit the use of a cloud-based HPC solution. Thankfully, TruScale for HPC supports implementation of a hybrid cloud environment which uses on-premises hardware for the storage and analysis of sensitive data, but allows less sensitive data to move back and forth across the cloud.

3

Is an HPCaaS implementation more difficult to manage than on-premises or cloud-based solutions?

No. On the contrary, using a subscription model for HPC gives businesses better control over data – allowing them to create, shift, and scale workloads and resources to suit the business’s specific requirements. If additional computing capacity is needed, Lenovo can add capacity quickly. Letting Lenovo carry the burden of managing their HPC datacenter gives customers the freedom to focus their internal resources on what they do best: accelerating their research and innovating without limits.

Specific services available to customers through the Lenovo TruScale HPC subscription include:

- Solution sizing and architecture
- Implementation and deployment
- Customer care, monitoring and health reviews
- Hardware technical support from Lenovo experts
- Flexible monthly payment plans

4

Is migrating an existing HPC datacenter to a TruScale for HPC-based solution difficult?

Thanks to the development of the HPCaaS delivery model, implementing an HPC datacenter has never been easier. Lenovo technology experts work closely with customers to design a solution that meets their needs in regards to flexibility, security, budget, and future technology roadmap. Lenovo TruScale for HPC solutions can be right-sized for initial implementation, with an accurate forecast of future needs.

5

What makes the TruScale for HPC solution different from offerings from competitors?

Lenovo is a globally recognized technology leader and trusted partner. As such, we are uniquely qualified to deliver innovative solutions to businesses of any size, anywhere in the world.

- **HPC expertise** – Lenovo is the number-one Supercomputer provider in the world according to Top500.org
- **Technology leadership** – Lenovo is the number one PC manufacturer in the world, and our Lenovo ThinkSystem servers have led the industry in reliability for the past seven consecutive years.
- **Trusted partner** – Lenovo has delivered HPC solutions to six of the top ten hyper-scalers in the world. We are a certified technology provider in more than 100 markets, and offer a central financing/invoicing/contracting/delivery model to support complex, global implementations. We currently have many well-established leveraging our aaS technology programs to advance their goals.

For more information about the benefits of TruScale for HPC and how Lenovo can help customers accelerate their innovation journey, please visit www.truscale.com.

truscale.com

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