



Smarter
technology
for all

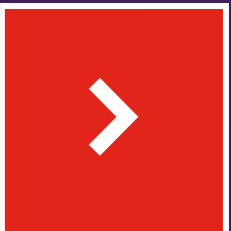
Lenovo

Lenovo TruScale

Infrastructure as a Service

Deriving maximum value from as a service IT infrastructure

How to enjoy significant financial, operational,
and time-to-market benefits with Lenovo TruScale
Infrastructure as a service



Introduction

Right-sizing your data center compute and storage

The constant evolution of data center, storage, and cloud computing technologies places IT teams in a difficult spot. To leverage the benefits of these technologies and improve their company's bottom line, IT teams need help finding the right balance between having the data center compute and storage capacity requirements they require at any given time or having too much. Too little capacity can lead to longer product and service development times, operational inefficiencies, and missed business opportunities. Over-sized capacity can lead to expensive, power-hungry network equipment sitting unused when business slows, depreciating in value as it consumes costly electricity.

When it comes to the choice between too little or too much data center capacity, most businesses view having too much as the lesser of two evils. They know that it can take 12 to 18 months for a new IT infrastructure request to get approved and implemented; too slow for today's digital world. So, they buy, install, and maintain more capacity than they need to accommodate periodic spikes in demand, and then write off unused capacity during slower business cycles as a cost of doing business. But with some companies reporting as much as 60 per cent of their network capacity going unused during slower business cycles, there must be a better way.



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Cloud strategies

The flexible approach to hybrid solutions

The rise of cloud computing seemed to be the answer to the overprovisioning problem. By outsourcing data centers to cloud providers, businesses could avoid purchasing new data center equipment. Need extra capacity? Just have your cloud provider bring more virtual machines and storage online to meet demand. But the situation is more complicated than that when data security requirements are considered. Many businesses must meet SLA or regulatory requirements around data security, sovereignty, and privacy that make hosting sensitive data outside the protection of a corporate firewall impossible.

This consideration led to enterprises adopting a hybrid cloud strategy, where less critical data was hosted in the cloud, and more sensitive data was stored on-premises. But this also resulted in increasing cloud subscription costs and data latency issues as businesses were forced to constantly shuffle data between the cloud and on-premises environments to comply with SLAs and government regulations.

“As (our) client had complex requirements and strict security demands, the public cloud was simply not an option. However, we saw that there were elements of the cloud model that fit well with this use case, particularly the ability to flex resources up and down in line with business requirements. In our view, Lenovo TruScale is a disruptive offering and an ideal solution for our client’s demands.”

Ruben Vergara, CEO, Blue Ocean Technologies, a Lenovo TruScale subscription customer



TruScale IaaS delivers the best of both worlds

What IT teams need is the ability to quickly scale up or down their data center capacity to keep pace with their rapidly changing requirements, but also avoid paying for capacity they're not using. And on top of that, they need to maintain data security. How do they support all these requirements at an efficient cost?

Thankfully, data center technology vendors have developed new business models that combine the speed and scalability of cloud computing with the data sovereignty and privacy strengths of an on-premises data center. In recent years, the as a service model has been heavily embraced by global enterprises. Lenovo TruScale combines the cloud flexibility and the on-prem security and control, all into one smarter alternative: sustainable, cost effective and fast!

Lenovo TruScale IaaS lets customers quickly and efficiently bring new data center compute and storage capacity online as needed, while avoiding the pitfall of overprovisioning. How does Lenovo do this? Lenovo collaborates with customers to identify what capacity they could need in the future, and then installs the hardware required to deliver that capacity at the customer site. This gives the customer the flexibility to decide what data stays protected by the corporate firewall, and what data can be outsourced to a cloud environment. Better still, Lenovo TruScale solutions come with advanced power metering capabilities to monitor what data center hardware is actually being used, and only bill the customer for that hardware. This way, customers get the best of both models without the risk of overprovisioning.



Maximizing value

Delivering the benefits of cost, risk and time

Those benefits alone make TruScale IaaS a compelling option for data center management. But it has other advantages as well.

By having their data center hardware on-site and ready to deploy additional capacity at a moment's notice, businesses could avoid the cost and delays associated with procuring hardware.

When it comes to staffing, most businesses keep their IT teams as small as possible to reduce salary and administrative costs. This usually results in a team with barely enough resources to keep the data center up and running, let alone spend time developing and implementing new, complex IT projects. But basic data center support and maintenance is part of a Lenovo TruScale solution. This allows IT teams to spend more time on value-added tasks, and less time on day-to-day maintenance. One Lenovo TruScale customer estimated that with Lenovo handling more routine data center responsibilities, the IT team had 40 per cent more time to focus on projects that could directly benefit the business, like porting existing on-premises datacenter applications to support the cloud or analyzing business data to find new growth opportunities or to increase operational efficiencies.



Access to the right skills at the right time

What if a customer wants to implement an innovative data center technology, but doesn't have staff with the required skills and expertise to do so? Lenovo TruScale Infrastructure as a service helps customers take advantage of new data center technologies without having to compete with other businesses to find IT staff with the requisite skills and experience. Personnel with those skills are hard to find, and their salaries are high. But with TruScale, customers access Lenovo's own engineers and project managers if they need help with new technology implementation. And as Lenovo is recognized worldwide as a leader in IT services, customers know that no matter how challenging or technically complex their implementation will be, Lenovo has the engineering talent to take it from initial concept to operational reality.

“We are the first line of support for our as-a-service clients, which means it's imperative that we can count on our technology partner. Whenever we encounter a technical issue, we know Lenovo will resolve it quickly – allowing us to deliver an outstanding level of service.”

**Miguel Reyes, President & Director, JUSTONE Solutions,
a Lenovo TruScale subscription customer**



Maximizing value

The right workload in the right place with sustainability built in

Infrastructure optimization reduces energy usage for lower carbon footprint and brings further operational time savings and IT costs reduction.

As IT leaders pursue the digital transformation strategies that move their organizations forward, they're also under increasing pressure to support and meet sustainability goals.

At Lenovo, we believe the right technology solutions have the power to not only help organizations meet those sustainability goals, but also improve productivity and agility along the way.

Through Lenovo TruScale, customers can leverage the inherent flexibility of as-a-Service solutions that combine hardware, software, and services into one convenient and predictable consumption-based model — and strengthen your sustainability efforts in four key areas:

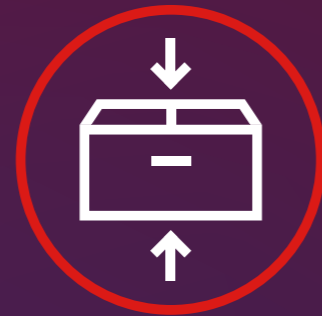
- Optimizing technology consumption
- Improving energy efficiency
- Embracing a more circular economy
- Managing carbon footprint



Optimizing your data center with Lenovo TruScale Infrastructure as a Service can help reduce CO2 emissions and power consumption by up to 20%¹



Lenovo TruScale IaaS technology meters each server 86,000 times a month to accurately monitor power consumption²



Lenovo's "Rack and Stack" configuration provides servers pre-installed and shipped in the rack, reducing the packing material needed and delivering 75% faster time from arrival to production readiness.²



Conclusion

Lenovo TruScale delivers benefits on all fronts

Today's digital marketplace is an exciting but challenging environment. Cloud computing and 5G are making it possible for businesses to participate in the digital economy – anytime, anywhere. The challenge businesses must address now is how to manage their online presence in a way that meets their data security and compute/storage requirements, while keeping costs under control. Lenovo TruScale IaaS portfolio does just that - providing flexible IT infrastructure that allows enterprises to innovate without limits.

For more information about Lenovo TruScale IaaS solutions and how they help customers get the most from their data center infrastructure without overprovisioning, please visit www.truscale.com

¹ TruScale IaaS accurately reports on power and CO2 emissions allowing managed infrastructures to be designed, implemented, and tuned not only for performance and capacity but also for CO2 emissions. Ongoing monitoring of the system using Lenovo XClarity Power Monitor and systems performance figures are used to optimize power consumption by the infrastructure. CO2 emissions will be calculated based on the localized carbon footprint of the power source used.

² Lenovo, Internal Source, 2023

