How Infrastructure-as-a-Service (IaaS) helps you manage tight budgets and long lead times to provide scalable and customizable IT

Taking the no fuss, no surprise route to evergreen IT

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Introduction

Managing IT equipment refresh in a world of change

In today's fast-paced, ever-changing world, IT teams face a constant battle to ensure that their enterprise's workforce is fully equipped with the right tools to do the job.

Whether it is a sudden switch to hybrid working or a need to scale quickly to support digital innovation, new hardware, software, and solutions must often be implemented promptly and efficiently to support business operations.

But that's easier said than done. IT acquisition and implementation can be complicated and the process is often characterized by lengthy procurement periods and delays. The inflexibility of procurement processes has been exacerbated by the pandemic, with the fragility of global supply chains leaving many enterprises suffering severe disruption and scrambling for alternative sourcing options. Many of the challenges stemmed from the speed at which things could be delivered, with research from Gartner showing that more than half of IT leaders in 2021 reported a decrease in IT equipment and that, as a result, 40 per cent planned to duplicate key suppliers to create redundancy.

These challenges have led many organizations to consider new ways of gaining on-demand access to computing resources. Most notably, Infrastructure-as-a-Service (IaaS) - where organizations can access the latest industry-leading solutions such as data center servers through a no-risk, no-surprise, pay-as-you-go consumption model - emerged as a game-changer as it simplifies the management and provisioning of IT. This e-Book considers the benefits of IaaS in today's dynamic business environment. It shows how it can be deployed to free-up budgets and resources - helping IT leaders concentrate on more value-added activities such as delivering digital innovation.
The challenges faced by IT leaders

Many IT leaders will recognize the challenge of delivering business objectives within the confines of restricted budgets. Traditionally, procurement processes based on upfront capital expenditure have met the need for new hardware, software, and solutions. This approach makes the IT department a ‘cost-center’ with considerable resources required to purchase and maintain new equipment before needing to do it all over again when the next refresh cycle comes along.

CAPEX procurement also takes time and requires a large amount of internal oversight. Typically, a Request for Proposals needs to be issued, and formal processes must be followed before a successful supplier can be put in place. For the hard-pressed IT manager challenged to keep up to date with technology trends, refresh cycles and lengthy procurement processes can be a source of immense frustration and can result in the use of outdated equipment. This inflexibility can also cause significant problems when an organization needs to respond quickly to external challenges by implementing new working patterns, often at short notice.

Global supply chain problems have made traditional approaches to IT procurement even more challenging. According to research by the Uptime Institute2, the pandemic, extreme weather and political change/instability have caused interruptions to global supply chains. This looks set to continue with the tightness of supply for many critical components, from chips to power electronics and even major electrical equipment. Consequently, the research showed that most data center operators expect problems with the supply chain of critical data center products such as servers in the coming two years. They predict it will affect either capital expenditure projects or the general availability of IT equipment, with only one in four expecting no delays or impacts.

So, CAPEX IT procurement does not always provide the answers. IT leaders are therefore looking for more agile and adaptable ways of refreshing their hardware and software, and increasingly want to deal with suppliers who can help manage this process from start to finish.
Introducing IaaS as a concept

So, why do these business challenges create the right environment for Lenovo’s TruScale IaaS? The answer lies with the inherently flexible nature of the as-a-service concept. Instead of ‘buying’ equipment such as data center servers, IaaS means organizations can access state-of-the-art equipment through a no-risk, no-surprise, pay-as-you-go consumption model that can be easily scaled without incremental capital investments. For IT managers, this approach presents multiple advantages over traditional procurement approaches.

These include:

**Access to the right equipment, without delay:**
The PAYG model means organizations can benefit from state-of-the-art equipment without lengthy budget approvals and procurement delays.

**Equipment stays supported from cradle to grave:**
The as-a-service approach means infrastructure is always supported, eliminating the risks of downtime and obsolescence.

**Simplifies the IT supply chain:**
Many as-a-service providers offer a portfolio of solutions, easing supply chain complexity by reducing the number of vendors that IT leaders need to deal with each day.

**Trusted advice at a time when needed most:**
As-as-service providers are usually experts in the latest hardware, software, and services, meaning that they can act as an extension of internal IT teams, especially during staff shortages.

There is a bigger picture to be considered, too. Scalable and customizable IaaS solutions support the sudden and unpredictable adoption of more flexible working patterns across an enterprise, something which proved crucial for many organizations following the onset of the pandemic. And IaaS offers a proven approach to delivering a genuinely modern IT environment, making it possible to build a cloud-like experience but with on-premise security and control.

Indeed, these are compelling propositions at a time when disruption – from either global issues or the pace of technological change – has emerged as the new norm.
How TruScale IaaS metering data drives system improvements

Having outlined some of the top-line benefits, it is worth looking at how TruScale IaaS can be implemented in practice and evaluating the kind of experience it can deliver for end-users.

Using a pay-as-you-go data center as an example, IaaS would require no upfront costs, with on-premise equipment paid for as a subscription service. The customer or partner never takes title, and consumption is metered and billed monthly – it is not another embedded lease.

Versatility is delivered in several ways. The design of the infrastructure and the financial agreement that supports it can be customized to specific business requirements. The end-user can decide how flexible and how much commitment is required. And simplicity is built in – it doesn’t matter what platform the end-user is running. TruScale IaaS can be applied to anything within the Lenovo portfolio.

An all-inclusive service offering is provided too. Lenovo manages the planning stage, involving infrastructure assessment and identification of the proposed solution. It also manages activation, with the equipment installed and deployed as required.

Consumption is then managed through a unique metering technology that detects power consumption through the CPUs. This approach means customers are only charged for what has actually been used. And finally, Lenovo oversees optimization, ensuring cost success and identification of any add-ons that might be required.

For the customer, visibility is critical. An online portal provides insight and metrics on performance data. Customers can also use the portal to set budgets and control spend. Tickets can also be raised and tracked, with progress updates provided by the managed service team. Monthly pricing structures are simple and all-inclusive of associated services (maintenance, support, remote monitoring and system health) in one bill.

Ultimately, the aim is to remove the pain of operating and maintaining on-premise data center infrastructure. Lenovo ensures it all runs optimally, 24/7. This frees up internal IT teams to concentrate on driving digital innovation and supporting new business models.
Medical company optimizes IT environment with TruScale IaaS

A large medical services company was struggling to meet the needs of its customers due to aging data center infrastructure, meaning it was missing many critical service levels. The shortcomings also meant the company could not scale to meet growing business demand and keep pace with competitors. It was also unable to make the financial investments needed to deliver the required customer-centric innovation. After assessing market alternatives, the company adopted a Lenovo TruScale IaaS solution based on Lenovo ThinkAgile with SAP HANA, Veeam and VMware. It included all the Lenovo services for maintenance, field support and management. Notably, the complete solution was deployed in less than 30 days from the signing of the contract.

The result was the development of a modern, dynamic infrastructure that fully supported business operations. This technology adoption was delivered with no upfront investment, and based on a genuine pay-as-you-go model with visibility and scalability built-in.

The impact on the medical services company was immediate. It provided the basis for far more responsive customer service, with for instance much faster quoting and better delivery coordination. Those factors have translated into a 30 per cent uptick in revenue and a 40 per cent reduction in management costs. Meanwhile, the IT team has been released from responding to day-to-day service issues and is free to deliver on broader efforts around digital innovation.
Conclusion

The past couple of years have shown that IT leaders need to act decisively in the face of global uncertainty. New working patterns and business models must often be implemented at short notice, requiring IT infrastructure that can be scaled quickly and efficiently, and with visibility and control.

Too often, CAPEX investment methodologies have proven slow and resource-intensive and have failed to support organizations adequately in times of change. Now, though, Lenovo TruScale IaaS has taken the complexity out of the procurement process for on-premise data centers, giving IT leaders the tools they need to build the vision that can take a business forward. The no-risk, no-surprise, pay-as-you-go consumption model provides a simple and effective means of introducing evergreen IT while controlling budgets and empowering internal people to take on more value-added roles.

This customizable and scalable approach is a critical enabler of digital innovation, providing IT leaders with the flexibility and agility they need in today’s dynamic business environment.

Visit our website to learn more about how Lenovo TruScale IaaS can provide flexible infrastructure that helps you innovate without limits.

1 https://www.gartner.com/smarterwithgartner/cio-agenda-2021-invest-in-your-supply-chain-before-its-too-late
2 https://uptimeinstitute.com/2021-data-center-industry-survey-results