Smarter technology for all

Lenovo

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TruScale

IaaS makes digitalization easier and affordable

Introduction

Corporate competitiveness is inexorably becoming more about digitalization. A wide majority of chief financial officers around the world have committed to ongoing digitalization, but with so many avenues of digital innovation open to pursue, CFOs have a formidable challenge managing the process. The emerging infrastructure-as-a-service (IaaS) model provides CFOs a rich palette of options to manage the process efficiently.

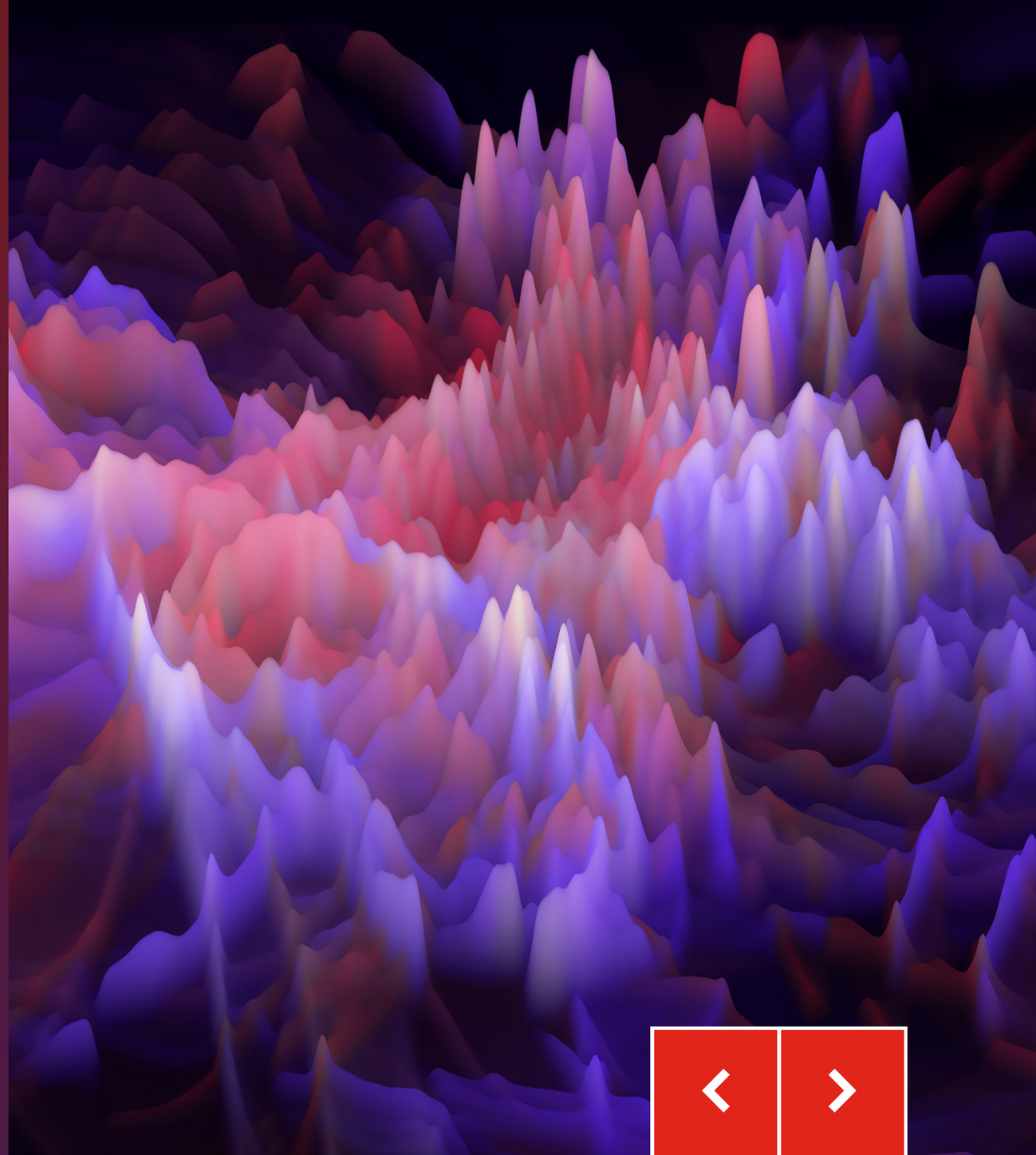
IaaS can also be coupled with innovative new payment options. An IaaS partner with sufficiently advanced infrastructure can offer its services on a pay-as-you-go basis. New PAYG options give CFOs an added dimension of flexibility in managing digitalization not only efficiently but also cost-effectively.

Lenovo, a leader in IaaS, offers the PAYG option, giving CFOs a safe, risk-free way to meet their strategic objectives and easily adapt to their needs as those needs evolve. Lenovo's TruScale IaaS service allows customers to leverage Lenovo infrastructure, storage and hardware on an as-needed basis.

TruScale's scalable PAYG model and real-time access to usage and cost data gives CFOs the visibility they need to monitor enterprise investment and ensure they stay within budget as they guide their companies' digital transformations. This approach means that CFOs will always be able to formulate a solution that is always right-sized for their respective enterprises.

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

Gartner (from the Gartner Glossary)[1]



What is digitalization?

Digitalization starts with digitization. Digitization is a very fundamental concept. It is the process of translating data into a digital format or of adopting the use of digital data. Digitalization, on the other hand, is a strategic, corporate-level program of using digital technologies to improve operations and to create new business opportunities.

Digitalization may be the milieu of high tech, but there is no line of business that cannot benefit by digitalizing - finance, agriculture, medical, or any other endeavor. To remain competitive, there is no enterprise that can afford to not digitalize.

At a conceptual level, digitalization might involve any combination of the following:

- Imagining new ways to use data
- Adopting new methods and tools to collect data
- Developing or exploiting new tools to perform that processing, and/or devising new analysis techniques
- Processing and interpreting the data
- Exploiting the processed data in a new or innovative way for a specific business purpose

At a conceptual level, digitalization is relatively simple. From an implementation standpoint, digitalization is quite complex. Preparations include a multitude of tasks that CFOs have direct responsibility for, but also many they have only indirect control over. A partial list that hints at the scope of what digitalization entails includes devising policy for the use of data, promoting both digital and financial skills among employees, instituting enterprise-wide digital security, and improving environmental, social and governance (ESG) performance.

All of it is in one way or another dependent on computing and communications resources - in other words, on infrastructure. In the process of digitalization, the infrastructure itself constitutes a competitive advantage.

The Prime example

What does that mean in practice for infrastructure itself to be an advantage? Amazon is a prime example of a company that transformed itself by digitalizing: exploiting infrastructure to effect business transformation.

Amazon as originally conceived was a simple online bookseller. The company was relentless in its efforts to increase the efficiency of online sales, however, first of books and then of more and more different types of goods. To accomplish that, Amazon built a multifaceted network anchored by incredibly flexible data centers that could support nearly every aspect of nearly any type of transaction. Amazon's infrastructure made it such a superior competitor it now dominates not just individual markets but entire market segments, including retail and advertising.

But efficiency that's just the first part of this digital transformation story. The other part of digitalization is business transformation.

Amazon's great perception was that it might be able to make a good business of selling access to its infrastructure, specifically to idle computing resources in its data centers. It was a new business opportunity, and it was predicated entirely on having the appropriate infrastructure: the data centers. Amazon Web Services (AWS) now accounts for roughly 15 percent of Amazon's revenues, and the company controls roughly 40 percent of the entire cloud market.

Since AWS was formally established in 2006, digitalization has become a gradual but inexorable trend. Leveraging infrastructure to realize new efficiencies and to identify new business opportunities is now well understood to be a winning business practice. More and more companies are pursuing the formula.

The difference between 2006 and now is that fewer and fewer are in a position to rely entirely on their own infrastructure. The reason is simple: few can afford to replicate the networking and computational resources that Amazon and its rivals in the cloud business began to amass more than 20 years ago. Infrastructure is expensive to procure, it is expensive to install, it is expensive to run, it is expensive to maintain, and it is expensive to perpetually upgrade. There is a limited number of companies with the wherewithal to compete in the cloud market. They include Google Cloud, Microsoft Azure, and SAP Cloud Platform (SAP is a Lenovo partner).

The (X)-as-a-service model and modern agility

Every CFO's challenge is to assess corporate priorities and allocate resources accordingly. What are CFOs prioritizing today? According to a survey from Gartner, 82% of CFOs report that they are accelerating their companies' investments in digitalization.

Chief information officers provide corroborating evidence that digitalization is an accelerating trend. Nearly three-quarters (73%) of the respondents in Gartner's separate but concurrent CIO survey said they expect they will be shifting their priorities to strategic business activities such as driving business innovation, developing business strategy, and identifying opportunities for competitive differentiation. They report that satisfying those goals is going to include modernizing infrastructure and applications.

As indicated earlier, digitalization is a complex, long-term process that requires significant CFO oversight. CFOs are still exploring the uses of technology innovations and how they can benefit their business and function operations, Gartner reported. The CFOs who responded to Gartner's survey say they are tackling some of the more difficult objectives first, including developing digital skills and instituting more flexible budgeting and forecasting.

Gartner's survey does not reveal whether the increased investments in digitalization come at the expense of investments in talent, supply chain, business services, fixed assets, or any other corporate needs, but there are no corporations with limitless resources. Implicit in the CFO job description is juggling resources to balance short-term needs against long-term goals.

Enterprises could benefit greatly from access to all of the latest modern infrastructure to fully exploit the potential benefits of digitalization. CFOs are confronted with the fact that infrastructure costs dearly, however.

It seems as if something here should have to give, but companies such as Lenovo are making a business of offering to other companies access to their infrastructure, giving CFOs a range of sophisticated yet cost-effective solutions.

The cloud business is essentially a computing-as-a-service business. There are innumerable companies offering a vast array of applications on a software as a service (SaaS) basis. Some companies will set up sophisticated sensor networks for their customers, and provide data collection and/or analysis - it's the beginning of the Internet of Things as a service. Other XaaS variations exist, and it's almost certain that others will be devised.

Successful businesses tend to share a set of common traits; ambition, efficiency, and innovation are only a few. Another characteristic of a successful enterprise is agility.

(X)-as-a-service

Agility starts with flexibility. The XaaS model allows for a maximum of mix-and-match flexibility, all depending on the needs of each individual enterprise. For example, financial trading companies still find it critical to retain complete control of their data, so owning and operating their own server installations is worth the expense and effort. There's a growing number of other enterprises of all types, however, that find it cheaper, easier, more convenient, and more efficient to rely on cloud vendors for most of their computational needs.

Lenovo's TruScale infrastructure as a service (IaaS), for example, starts with a secure and privately managed cloud service (through our partnership with SAP). This service provides all the benefits of an operating expense business model, elastic computing, and white-glove managed services delivered in one single operation.

Our cloud services are complemented by TruScale for Hosted Desktops (with partner Nutanix), which provides responsive remote desktop solutions that help streamline IT administration and simplify implementation.

XaaS companies not only give their customers options for services, they also clear the space for their customers to be agile. An enterprise that invests in physical plant has committed to whatever course of action is dependent on that infrastructure. If the company's priorities change and the business needs to evolve in a different direction, it will never get its return on its investment. If an enterprise has been relying on a third party to provide the infrastructure, the consequences of moving on are far more negligible.

So far this discussion has focused on the fundamental advantage of the XaaS model - that an enterprise can manage its digital transformation by prioritizing which capital investments to make. But there's another dimension to XaaS. Different XaaS vendors have adopted different ways to pay for services, and the payment models available can constitute an added layer of flexibility for CFOs.

The typical approach to XaaS is to charge for some defined time period of access to an XaaS service, which can range from a year, months, and weeks to just a few hours in some cases. Flexibility on the duration of a contract can be a boon, but it is still not the most efficient approach for the customer of XaaS services. Customers can still end up paying for access that remains left unused, when they may have reserved more time than they needed, or enterprise priorities may have evolved and they no longer need what they reserved.

The next level of payment flexibility for CFOs looking to engage XaaS services is the pay-as-you-go (PAYG) model. The PAYG model charges companies only for the services they actually use, giving them the ultimate flexibility to prioritize. The PAYG model requires infrastructure capable of accurately metering usage, however. Lenovo and its IaaS partners are among the first to offer this option with TruScale IaaS.

With TruScale CFOs gain direct visibility into expenditures in both the short term and the long term, thereby maintaining full control over costs. PAYG and Lenovo's flexible terms make it easy to adapt when requirements and priorities change.

Conclusion

Why Lenovo?

Driving digitalization is high on the agenda for many enterprises, but to be able to support that journey, CFOs need optimal visibility over the ongoing requirements of the IT infrastructure, the expected and actual usage, and the relating costs.

Lenovo TrueScale IaaS enables this transparency with a true PAYG approach, providing a simple way to ensure that the enterprise can benefit from an IT architecture that is right-sized, all the time, while allowing CFOs to optimize budget control in the short and long term.

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

www.truscale.com

[1] https://www.gartner.com/en/information-technology/glossary/digitalization