Fsas Technologies
a Fujitsu company

From cloud-first to workload-first

How to complement your
cloud strategy with a smart
on-premise adjustment

When reaching for the cloud, you should carefully check your options

Although the public cloud has been a big talking point for some time now, company managers are gradually realizing that it is not a black or white issue compared to an on-premise infrastructure. It is rather more about the different strengths of two proven strategies, both of which have dedicated strengths. However, the private cloud is not always regarded as highly as it should be. While it received all the attention before the public cloud, today it is often underestimated or tends to be forgotten in one scenario or another. Regardless of careful consideration of what might be the right cloud for the right workload, more and more data has often been moved to the public cloud.

In retrospect, however, many companies realize that this can result in unplanned high costs. In fact - as independent studies show - some companies spend 2-3 times more on the cloud than originally estimated. And it can also lead to a lack of data sovereignty. What's more, increasingly stringent legal regulations demand greater control of data, and consequently a differentiated approach for their data handling. In the face of such real challenges, the balance between efficiency, resilience and innovation when moving to the public cloud is becoming increasingly unstable. Instead, companies should consider a workload-first cloud strategy, matching applications to the suitable business model.

79%
of organizations feel a portion of their **cloud spending is „wasted"**

60%
of organizations are **spending 2-3 times more** on cloud than **originally budgeted** for

50%
of CEOs are very or extremely concerned about **growing cloud expenditures**

Two steps forward, one step smart

While this development is not a signal to turn back the clock, it is a point at which an intelligent hybrid infrastructure is increasingly becoming a viable option for both business and IT leaders.

However, the question is whether utilizing on-premise infrastructure components 'as a Service' like in combination with cloud offerings will not only provide more benefits and choice, but whether the business model for on-premise can keep up with what we now know as the flexibility of the cloud business model.

Management complexity

ROI pressures

Sustainability

Costs

Cloud challenges

Regulatory compliance

Skills

Security and data protection

Application performance

Workload modernization augmentation

A recent IDC Report explains that the move to the cloud poses a number of substantial challenges for a business.

Can on-premise "as a Service" complement cloud benefits?

One of the main reasons to design a hybrid infrastructure is to remove the data egress charges that many cloud providers charge. Businesses want their workloads to run with optimal performance, low cost, and maximum security. Additionally, with some countries and global regions enacting strict data sovereignty laws such as the General Data Protection Regulation (GDPR), workloads may be better suited to private data centers or even a colocation facility within said regions to satisfy data location requirements.

It's not all or nothing

Business leaders need to weigh up the benefits of running some workloads in one environment and some in another, depending on where they will operate best. For instance apps that require very low latency to operate properly may be better off deployed at the edge or other on-premise infrastructure that cut out lengthy network delays. Another example are applications with an extreme uptime demand. They will also need to be put in the environment that can best cater to these needs. An intelligent hybrid infrastructure could be a boon here, as on-premise workloads can be more closely overseen and maintained to ensure they are always running and available. An 'as a service' flexible consumption solution such as uSCALE is the perfect business model to complete your hybrid infrastructure strategy.

As-a-Service flexible consumption solutions have many layers of benefits

IT Funding	Low upfront costs	Pay-per-use for variable needs	Scalable and simplified infrastructure pricing
IT Staffing	Move from routine admin tasks to value added digital service delivery	Deliver more value to the business within the same budgets and staffing levels	Make use of provider skills that are in short supply in the market
IT Operations	Ongoing operational monitoring	Incident detection and resolution	Dedicated support and account management contacts
IT Infrastructure	Modernized and efficient infrastructure regularly renewed	Combination of customer own hardware, provider hardware and public cloud	Infrastructure consolidation enabled by higher utilization on more powerful hardware through dynamic & workload management

**Bernd Gerber,
Department Head DC Services
and Network Services,
City of Ludwigshafen**

"Digitization confronts us with unprecedented demands on storage systems. Our pay-per-use solution is a precise fit for our requirements that need a high - performance and scalable storage infrastructure, with high availability and a performance buffer for future growth."

How a business model like uSCALE makes a huge difference

While public cloud is a good option for some workloads, workloads that are very data-intense can significantly increase planned costs for public cloud offerings - like CAD applications that produce huge amounts of data. The total cost over time can quickly become unpredictable. Data analyses have shown that through a proper consultative-led approach and solution design, uSCALE is more than 60% less expensive than public cloud offerings in some scenarios.

Here's the math: in an anonymized scenario we have used an infrastructure incorporating 400 VMs. Each VM includes 4 vCPUs, 8GB RAM and 200GB storage. This setup has been compared to three different public cloud providers. The graph shows that, given the same requirements, uSCALE offers the same performance at a fraction of the cost.

Total cost per VM / month

01	uSCALE
02	Public Cloud #1
03	Public Cloud #2
04	Public Cloud #3
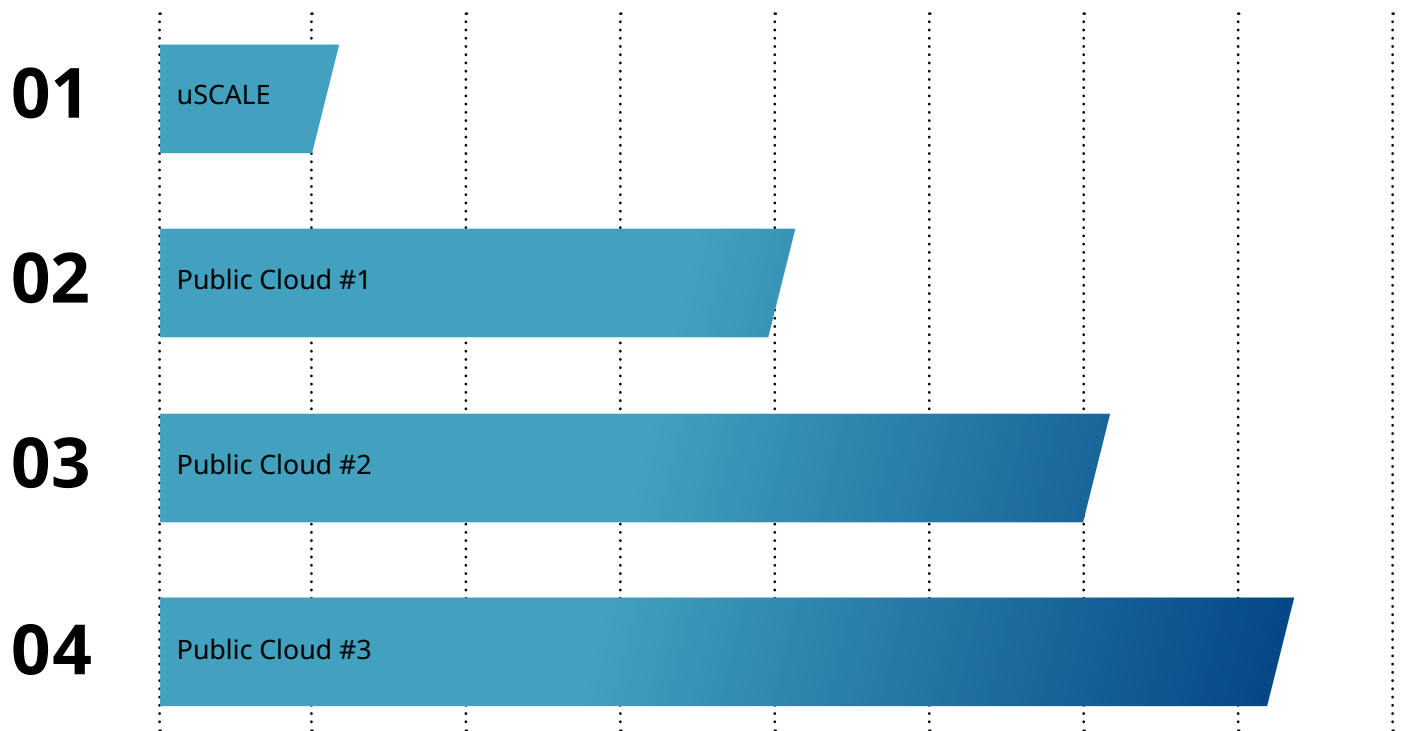
This is not by any means a one way street: we are agnostic if the customer wants to run other workloads in the public cloud. uSCALE fits perfectly in a Hybrid Cloud environment, seamlessly connecting everything while leveraging the uSCALE Customer Success Portal.

This gives customers full transparency of both on-premise and on the cloud solutions. All infrastructure types co-exist, and we support matching their workloads to infrastructure (on-premise, private cloud, colocation, public cloud, ...) and help to find the right cloud for the right workload.

uSCALE: pretty much the best of both worlds

Comparing cloud and on-premise 'as a Service' sounds like comparing apples and oranges? In fact it's not – at least if you choose the right business model that combines the best of both worlds.
Both have some common features, but differ in some relevant areas.

Even though cost should not be the only criterion in favor of an on-premise infrastructure, it does complete the list of advantages. For example, if you work with applications that require particularly low latency, this will also play an important role in the decision-making process. We have put together an indicative comparison of the advantages of a private cloud and the advantages of an on-premise infrastructure. Please note that choosing the right infrastructure type is all about choosing the right cloud for the right workload. Our experts will help you with this process.

Public Cloud	uSCALE
Consumption based, 'as a Service' reducing Capex	Consumption based, as a Service reducing Capex
Work with multiple vendor assigned data centers	Work in your own data center or a co-location data center
Globally distributed data	Local data or locations by choice
n/a	Work with your data in company owned data centers or dedicated private spaces
n/a	Full data sovereignty
n/a	Utilizing existing investment
n/a	Co-location offering (on demand)
Easy up and down scaling	Easy up and down scaling
Instant scaling	Instant scaling
Progressive costs when scaling	Predictable, transparent costs
n/a	Predicable costs based on Assessment
n/a	Dedicated Customer Success Manager
n/a	Demand based buffer already available based on in-depth review
n/a	Individual forecast based on detailed analysis of previous usage
n/a	24/7 visibility on consumption data incl. costs

"Modernizing the infrastructure and switching to the uSCALE consumption-based financial model for our storage worked well. The migration took place during ongoing operations, and we didn't have a single minute of downtime. There is hardly anything we could have done better."

Björn Schneider,
Head of the Computer Center of the DGD Stiftung

uSCALE – synchronize growth and IT capabilities

If additional computing power or storage capacity is required, in a public cloud environment, you simply scale up to quickly cover the growing demand. As tempting as it may sound, this type of model involves a business risk that should not be underestimated. Because not only can the capacity provided grow quickly and almost at will – so can the costs.

uSCALE is the modern business model for on-premise infrastructures that offer all the advantages of 'as a Service' models. A consultancy-based approach where the solution you need is developed together with you, the customer. We not only look at your current workloads, but also discuss your plans to accelerate the business. This forms the basis of a plan that is transparent with no hidden surprises on cost. All information, as well as a model for the best placement, is included in the final proposal.

The buffer makes the difference

Almost? Exactly, because that is the decisive twist. With uSCALE, an additional buffer is calculated in advance, which is precisely customized to the needs of the company. This buffer capacity is calculated on the basis of the individual usage profile and is immediately available when required. Data transfers don't increase the cost of the solution; you can deploy as many VMs as necessary within the agreed parameters.

In case more capacity or compute is needed besides the already included uSCALE buffer, more infrastructure can be added. In contrast to the familiar cloud-based billing models, you can count on the required resources right from the start. uSCALE is the smart alternative, that brings the cloud (experience) benefits into your data center.

Working with people, not bots

A personal Customer Success Manager is also available to advise you on an ongoing basis and to plan future requirements – based on your consumption data. You also have 24/7 access to an holistic Customer Success Portal from anywhere in the world. Here you will find all the information about your uSCALE services including visibility on system consumption data, order tracking, capacity management and forecast insights.

With its predictability, uSCALE is a reliable basis for your hybrid infrastructure, whether in your own data center or in the private cloud in a co-location, for example with our partner Equinix, the world's largest provider of data centers and colocation.

70%
more likely

to use **flexible payment solutions** to fund **significant parts** of their IT infrastructure investment

"With a cloud-like purchasing model, we aren't having to load our data center with equipment and hope for an order, or conversely wait for months after an order has landed to get the right infrastructure in place."

Nick Barron,
Chief Technology Officer, Harbour Solutions

Get a clear view on the benefits

01 Better aligning IT resources and usage

02 Allowing our IT staff to focus their attention on more value-added activities

03 Accelerating business innovation

04 Providing a cloud-like infrastructure with better automation and self-service provisioning

05 Optimizing our infrastructure utilization

06 Breaking cycles of annual budgets to enable multiyear strategic IT investment

07 Preserving cash while enabling upfront transformation or implementation

08 Taking advantage of the skills and resources of the vendor / service provider

09 Transitioning our private IT infrastructure to an 'as a Service' model

10 Enabling scalable or flexible edge solutions

uSCALE meets sustainability: a kind of perfect match

Nowadays, every IT decision must be measured in terms of its sustainability. Investors, authorities and society are increasingly scrutinizing the social, ecological and economic impact of IT strategies.

uSCALE provides you with good arguments for discussion in all three sustainability dimensions.

Ecological responsibility

uSCALE gives you access to the latest generation of hardware with reduced or optimized consumption values. Such an effect can add up to a considerable savings potential, especially in large server farms. By operating in an on-premise environment, you also effectively counteract the unregulated provision of computing capacity and data storage. Do you really need unlimited reserve when holistic, forward-looking IT requirements planning shows a maximum peak demand of just 120%?

Utilize existing investments

Every server that does not have to be made available to cover loads that are never requested helps to reduce the carbon footprint. With uSCALE, required capacities can just as easily be provided in existing data centers. This in turn allows the design of intelligent edge scenarios in which only data that is actually needed flows through the lines. uSCALE gives you back control over the sustainability of your IT.

Securing the economic future

The optimization of IT operating costs has always played a major role in financial planning. Although the pay-per-use in a classic cloud operating model is an attractive way to reduce investments, it also harbours risks. If demand increases beyond the normal level, high additional costs often arise in ongoing operations. Consequently, these costs must be saved elsewhere.

Rising costs on one end leads to cutting costs on the other

Such a causal relationship is poison for forward-looking planning. That's why uSCALE takes a different approach. With uSCALE, buffers required in the future are already integrated into the model. In this way, the price of performance can be kept constant over a long period of time. At the same time, existing data centers can be used to a greater extent, thus protecting existing investments.

Social impact

We are committed to the idea of creating an environmentally friendly and resilient society in which people can live in peace and prosperity. This is an aspect that tends to play a subordinate role in many discussions about IT. But for us it is one of the cornerstones of our work.

We take responsibility

We consistently rely on trustworthy technologies to solve social problems together with countries, governments, citizens, and business partners, for example in the area of intermodal mobility. We attach great importance to fair and socially balanced working conditions, not only in our own parts of the company, but also in the production facilities of our partner companies and suppliers.

Avoiding turbulences with an additional "on the ground" option

Organizations looking for cost savings and sovereignty benefits and/or a differentiated technological approach to their application landscape should carefully consider their cloud strategy. As said, it's not about exclusivity, nor is it a black and white question. It's about an intelligent hybrid cloud configuration with a balanced combination of options.

The right infrastructure type for maximum value

The overarching question is what the right infrastructure type for the right workload is. uSCALE offers you a comprehensive 'as a Service' business model for your on-premise data center, your private cloud setup, or for data. Familiarize yourself with the benefits in the next column, and start a forward-thinking business and IT conversation with your representative:

- Sovereign, agile and scalable on-premise IT business model
- Benefit from an IT solution that is precisely aligned to your specific needs
- Flexible growth options whilst ensuring compliance and data security standards
- Align service usage with costs, enabling clear and transparent future planning
- Holistic customer success portal offering an unparalleled experience in seamlessly analyzing and optimizing infrastructures.
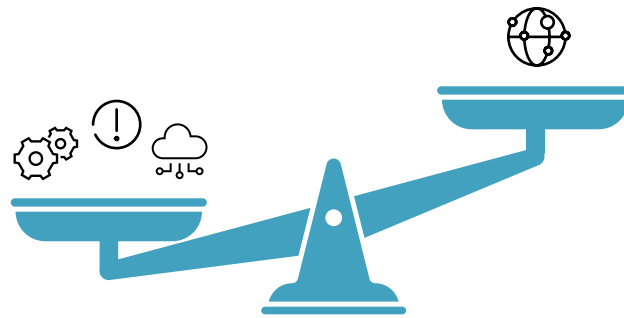
Drivers

Efficiency	**Resilience**	**Innovation**
• Rising public cloud costs • Macroeconomic pressures • Sustainable IT objectives	• Concerns of public cloud or vendor lock-in • Regulatory, security and sovereignty requirements • Need for data, IP and operational control	• Speed and agility • Developer and data team needs • Delivering compelling customer experience

"uSCALE provides us with maximum flexibility to adapt the number of ports required to meet actual demand."

Jan-Henrik Schommler,
Otto Group IT

Check out your numbers

We have activated a quick evaluation for you so that you can get a first impression of your uSCALE price.

Please note that the result of this initial review is indicative only.

Each uSCALE agreement is based on an in-depth analysis of your current setup and future requirements.

To do this, speak to your personal expert. They will be happy to explain all the options and provide you with a customized offer tailored to your specific needs.

**Access the
uSCALE price estimator**

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