

A black and white photograph of a roller coaster track looping through a sky filled with large, fluffy clouds. The track is made of metal and has a series of supports. The overall mood is dramatic and high-stakes.

# Signs It's Time to **Rethink** Your Cloud Strategy



# Table of Contents

01

**PERFORMANCE  
AND SPEED ISSUES**

02

**CLOUD BILL IS SPIRALING  
OUT OF CONTROL**

03

**YOUR APPLICATIONS  
ARE FAILING**

04

**ONE SOLUTION TO  
SOLVE THEM ALL**

**You probably have a cloud strategy.** Whether you are completely in a private cloud, are interested in exploring public cloud vendors, or are using a hybrid and/or multicloud. Whatever the case, your cloud strategy should offer you the flexibility to leverage workloads on the infrastructure that makes the most sense for you – while allowing you to take advantage of all the benefits your environment(s) of choice offer. But what if the strategy that you put into place isn't working for you anymore?

**In this eBook, we'll look at some of the signs that it's time to rethink your cloud strategy and offer tips on how to do so.**

## CHAPTER 01

# PERFORMANCE AND SPEED ISSUES

**Some signs that you've got a performance problem:** angry customers, long wait times, and unstable performance. Sound familiar? If your end-users are starting to complain about how unpredictable the performance is – or how long it takes to generate reports, duplicate environments, respond to customers, or even just do normal, everyday business processes – it might be time to rethink your cloud strategy. Perhaps you've moved a mission-critical workload that needs a lot of performance onto the public cloud for agility reasons. Or maybe your workload previously ran as expected, until the amount of data grew, and changes were made in the workflow.

Whatever the reason, you're discovering that you are no longer getting the performance that you need. If you are starting to notice that your end-users are getting increasingly frustrated, take a look at what environments your workloads live on and try to determine if there is a way to increase performance. Or decide if it would be more cost-efficient to move to another environment.



### Soccour Solution's Story

Soccour Solutions, a Business Solutions Provider, needed to offer its client a flexible SaaS solution so its software could be remotely accessed during the COVID-19 pandemic. The solution needed to offer high performance in order to meet the software's 3D visualization demands and to run high volumes of data.

With the Silk Platform on AWS, the software was 40-60% faster than it had been previously on on-premises physical workstations and offered 4x the speed than native AWS alone.

# How to Improve Your Performance



**Choose the Right Data Platform** – Avoid the standard “shared nothing” architecture that limits performance. Instead, adopt cloud architecture that is built from the ground up to aggregate performance without limits.



**Understand How You’re Being Charged for IOPS** – Cloud vendors typically charge IOPS in two ways: either by providing IOPS that vary depending on the amount of capacity or volume size you provision, or by letting you pay extra for provisioned IOPS. Both options may be expensive – especially for high-performance workloads -- and both often result in wasted or stranded resources.



**Learn More About IOPS Calculations** – Cloud providers use a fixed I/O size and a baseline number to show a possible maximum number of IOPS that can be achieved... but the real number changes depending on your workload. As block sizes increase, IOPS decreases. When making performance comparisons, make sure you take into account these calculations.



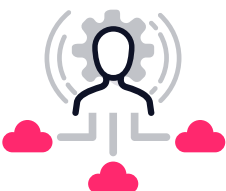
**Overprovision to Deal with Performance Fluctuations** – Latency on a cloud volume can range from single-digit milliseconds into the hundreds of milliseconds. This fluctuation can lead to inconsistencies in application response time, frustrating end users. Overprovisioning capacity will help drive IOPS and throughput higher, but it won’t solve the latency problem.



**Configure SSDs with RAID0** – With multi-disk striping, you’ll get additional aggregated performance in terms of IOPS and bandwidth, with the extra cost of each additional volume you connect. This is helpful when your volumes read performance limits. But proceed with caution: a loss of any disk in the stripe results in total data loss of the entire volume.



**Use Snapshots Wisely** – Creating snapshots can impact your data performance. Normal snapshot and restore operations can take 30-60 minutes or longer depending on how much data you are restoring. Storing snapshots is not free either, with each snapshot costing you more.



**Choose the Right Type of Compute Instance** – This can be really difficult, but it will dramatically impact your performance. Compute instances have their own highly varied performance limitations. If you are hitting the caps on IOPS or throughput with your specific compute engine, you’ll need to upgrade to a more powerful class.



## CHAPTER 2

# CLOUD BILL IS SPIRALING OUT OF CONTROL

**Are you frequently suffering from sticker shock when you receive your public cloud bill?** You know what workloads you are putting into the public cloud. And if you are pushing for even higher levels of performance, you know that you are going to pay dearly for it. But there are other factors that can affect your cloud bill. Snapshots and clones can eat

up capacity, as can a growth in data. Dev/test environments you spun up “temporarily” but never shut down can quickly affect the bottom line. If your public cloud bill has become wildly unpredictable, you need to take a closer look at what exactly you have in the cloud, how to reduce this cost, or if there is a more cost-efficient option available.





## How to Lower Cloud Costs

### 1. Leverage Machine Learning and Proactive Monitoring

– Taking advantage of policy-based automation and proactive monitoring functionalities can ensure your infrastructure is always optimized.

### 2. Take Advantage of Rich Data Services

– Deduplication, data replication, thin provisioning, and zero-footprint clones can offer significant cost reductions by minimizing how much capacity you are using in the cloud.

### 3. Choose the Best Cloud to Suit Your Needs

– A hybrid/multi cloud strategy gives you the flexibility to move data to the infrastructure that meets each application's needs at the most cost-effective price point. With data mobility between infrastructures, you can easily engage in cost-saving techniques, such as cloud bursting.

### 4. Manage Entire Hybrid Cloud on One Platform

– Having a consolidated view of your entire hybrid/multicloud infrastructure makes it possible to see when you're closing in on thresholds and which workloads need to be shifted to other resources with more capacity. And by managing the entire hybrid infrastructure on one platform, you can make changes quickly and easily.



### TPG Software's Story

TPG Software is an investment accounting software solutions provider that was adopting a SaaS delivery model to improve its customer experience. Customers generate reports with large peak activities in the middle and end of each month. To accommodate these peak workloads, TPG's infrastructure needed to have the flexibility to add more resources as needed... and then turn them off during the rest of the month to reduce costs.

The Silk Platform on GCP gave TPG the agility to run at full efficiency, while minimizing the costs of managing its infrastructure. In addition, Silk gave TPG the ability to securely consolidate several application servers to fewer SQL servers. Altogether, TPG saw a 30x cost savings by using Silk.

## CHAPTER 3

# YOUR APPLICATIONS ARE FAILING

**There are many ways to move applications to the public cloud.**

1. You can refactor them for the specific environment you are planning to use.
2. You can lift and shift applications to the cloud.
3. You can modernize with containers.

Whichever option you choose, there is risk involved. Regardless of how you got to the cloud, if the migration is taking more time and budget than you had planned, then it's obviously time to reevaluate your cloud migration strategy.



**80%**

**IT organizations running workloads in the public cloud today**

# Evaluating Your Cloud Migration Options

Migrating applications to the public cloud isn't one-size-fits-all. Depending on what your needs are, the remaining life span of your app, etc., there are a number of ways to get your information into the cloud.

## Refactoring

Refactoring – or rewriting – apps to the cloud is the recommended migration method by public cloud vendors. It ensures that you are getting the maximum efficiency from the application – to run faster, be more cost-efficient, and be able to leverage all of the cool functionalities that the vendor offers. However, rewriting an application, while maintaining all of your rich features and high customer experience, can take years depending on how complex your application is. On top of that, the cost, risk, and chance of failure are extremely high. The success and failure can make or break a career, given the time, resources, brainpower, and money that go into the process. And if you want to shift data from one public cloud to another, or even back on-prem, you'll have to go through the whole time-consuming and risky process all over again. But with high risk comes high reward. Companies that refactor their apps successfully to be truly cloud-native will be able to fully reap the benefits that brought them to the cloud in the first place.

## Lift and Shift

Lifting and shifting requires you copy your application (installer and file system data) and reinstall it in the cloud on a platform (typically Windows or Linux). Lift and shift is significantly faster and presents far less risk and cost than refactoring. But you don't get the cool features and scalability that comes with native cloud. Lift and shift is a good option if you have an application that you are planning to retire within the next few years, or if it is going to be too costly, too risky, and will take too long to refactor.

## Containers

Containers allow you to strategically use key components of a complex application in the cloud, without running the entire operating environment. Containers encapsulate only the runtime code required by your application. You can self-execute these containers without maintaining the overhead of running the whole environment. And if you need additional features from the complete application you can access them through a shared common library. Moving applications to the cloud through containers is quick, simple, and doesn't require you fully refactor to a specific API. This is a good option if you're looking to eventually refactor an app to the cloud but need a stopgap to start getting key data, features, and functionalities onto the cloud in the meantime.

**65%**

**Enterprises are adopting the cloud for scalability with new technologies**



## CHAPTER 4

# THE SOLUTION: A DATA PLATFORM

Investing in a data platform is the solution to any of the above cost, performance, or migration issues that you might be having. By decoupling the data from the underlying infrastructure, a data platform provides easy mobility of data between different environments. There is no need to refactor or pick and choose which components to migrate. Yet you get the full functionality and benefits of the public cloud as though you were going cloud native!

A data platform offers significantly improved performance than any other cloud solution – as much as 10x performance. And with licensing that doesn't link performance and capacity, you never have to worry about paying for capacity you don't want to achieve the levels of performance you need. Finally, with rich data services that you can usually only get on-prem, such as deduplication, snapshots, and zero-footprint clones, you are able to minimize the capacity that you are using – resulting in a further cost savings.



### About Silk

Silk is the database supercharger – the smart platform that delivers game-changing database performance without changing a thing about your underlying apps or database infrastructure, whether you're running real-time transactional workloads or analytical workloads – so your entire stack runs 10x faster. And with always-on availability across regions, zones, and clouds, your databases keep going strong no matter what the cloud throws at you. Industry leaders like Priceline, Cisco, and Telefonica rely on Silk for unlimited cloud flexibility, unbreakable data resiliency, and the greatest database performance of their lives. Learn more at [www.silk.us](http://www.silk.us).

