



The Ultimate Guide to **Cloud Cost Optimisations**

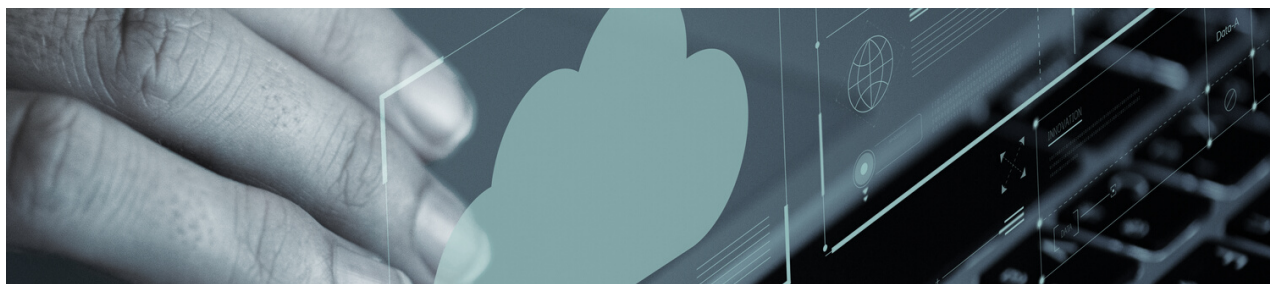
ACROSS AMAZON WEB SERVICES (AWS),
MICROSOFT AZURE, HUAWEI AND GOOGLE
CLOUD PLATFORMS

THE ULTIMATE GUIDE TO CLOUD COST OPTIMISATIONS

Across AWS, Azure, Huawei and Google Cloud Platforms

The cloud's scalability offers a dual-edged advantage. On one hand, it grants the freedom to explore new concepts without the headaches of provisioning additional server racks. However, as someone in the tech realm, you're undoubtedly aware that this convenience comes at a cost.

Cloud computing has revolutionised the way organisations approach IT infrastructure. By leveraging the scalability, flexibility, and cost-effectiveness of cloud-based services, companies can save on capital expenditures, streamline operations, and increase agility. However, to fully realise the benefits of the cloud, it is essential to optimise cloud costs on a continuous basis. In this eGuide, we will explore what cloud cost optimisation is, why it matters, and the best practices to achieve it across Amazon Web Services (AWS), or Azure, Huawei and Google Cloud.



What Is Cloud Cost Optimisation?

Cloud cost optimisation is the process of reducing your overall cloud spend by eliminating waste, making use of cloud provider discounts, rightsizing resources, and configuring all aspects of your system to take advantage of the elasticity provided by your cloud provider.

The cloud offers teams the versatility and flexibility to deploy and test with relative ease, this does however open the door to waste. Test environments are often forgotten along with PoCs which were never cost optimised. In most cases, provisioned resources, in use or not, still incur a cost.



92%
**EXCEED
BUDGET ON
CLOUD
RESOURCES**



40%
**OVERSPEND
ON CLOUD
RESOURCES**

Why Is Cloud Cost Optimisation Important?

While the cloud offers initial cost savings and scalability benefits, it can become a significant long-term expense. According to Densify, approximately 92% of organisations exceed their budget on cloud resources, with an average overspend of 40%. Therefore, optimising cloud costs is essential to enhance an organisation's return on investment (ROI) from the cloud. Moreover, cost optimization provides numerous benefits beyond mere expense reduction, including:



IMPROVED RESOURCE ALLOCATION

By optimising your cloud resources, you can ensure that you are using your resources effectively. This can lead to improved resource allocation, increased efficiency, and better performance.



IMPROVED CUSTOMER SATISFACTION

By optimising your cloud costs, you can improve your ability to deliver services to your customers. This can lead to improved customer satisfaction, retention, and loyalty.



BETTER BUSINESS AGILITY

Cloud Cost Optimisation can improve your business agility by allowing you to scale your resources up, down or as quickly as needed. This can help you respond to changing business needs and market conditions.



ENHANCED SECURITY

Cloud Cost Optimisation can also enhance security by allowing you to identify and remove unused resources that may pose a security risk.



BETTER PREDICTABILITY

Optimising your cloud costs can help you predict and forecast your expenses more accurately. This can help you plan your budget and resources more effectively, reducing the risk of unexpected expenses.



INCREASED INNOVATION

By reducing unnecessary expenses, you can free up resources to invest in innovation and new initiatives. This can help you stay ahead of the competition and bring new products and services to market faster.

Common Obstacles For Optimising Cloud

1. Visibility

Visibility into cloud spending is the key to surfacing cost optimisation opportunities. Most teams lack true visibility into their cloud spend, and find it difficult to read and interpret billing data from multiple cloud providers and allocate costs accordingly.



2. The dynamic nature of cloud

Cloud environments are dynamic, with resources constantly being added, removed, or resized based on demand. This makes it difficult to maintain consistent performance and optimise costs, as it requires continuous monitoring and adjustment.



3. Lack of skilled resources

Optimising a cloud environment requires skilled resources with expertise in cloud technologies, DevOps, and infrastructure management. These skills can be hard to find and retain, especially in a competitive job market.

4. Budgeting and forecasting

The migration from on-premises to the public cloud requires that organisations shift away from a known static CAPEX model to a highly dynamic usage-based OPEX model that is notoriously hard to control and forecast.

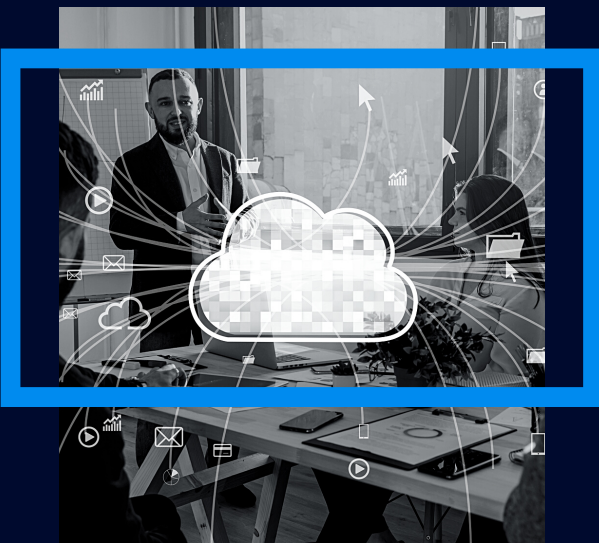
5. Lack of governance

The inherent ease of provisioning of cloud services often leads to resource sprawl and cost overruns as teams who make decisions about new resources are often unprepared for the self-provisioning nature of managing cloud costs and usage. Many organisations lack formal governance over new workloads, which adds to the challenge of controlling spend and reducing waste.



6. Kubernetes cost allocation

Optimising cloud costs is a challenge in and of itself, but the introduction of Kubernetes adds another layer of virtualisation to manage. How can you manage costs if stakeholders lack an accurate view of which resources are being used and in what context? Reaching inside each container cluster to understand who is driving resource consumption and fairly allocating the resulting costs is a very complex problem.



7. Resistance to change

Organisations may be resistant to change, especially if they have invested heavily in existing infrastructure and processes. This can make it difficult to implement new cloud technologies and practices, which can hinder optimisation efforts.

6 Best Practices For Achieving Cloud Cost Optimisation

Cloud cost optimisation is a crucial aspect of cloud management that requires careful planning and execution. It is essential to understand that optimising cloud costs is not a one-time process; instead, it requires continuous monitoring and tweaking to achieve maximum benefits. Here are some best practices to help you optimise your cloud costs effectively:

1. Right Size



Right Sizing involves matching the resources you provision to your actual workload requirements. In other words, you should only provision the amount of CPU, memory, storage, and network throughput that you need. If you overprovision resources, you may end up paying for unused resources, which increases your cloud costs unnecessarily.

On the other hand, if you under provision resources, it can impact your application performance, which can lead to higher costs in the long run due to reduced efficiency and productivity. By right-sizing your cloud resources, you can reduce costs by paying only for what you need, while ensuring that your application performance remains optimal.

To right-size your cloud resources, you need to have a good understanding of your workload requirements. You can use tools and metrics to analyse your resource utilisation and identify areas where you can make changes. For example, you may find that you can reduce the number of instances you are running or switch to a lower-priced instance type that still meets your performance requirements. By identifying these areas and making adjustments accordingly, you can optimise your cloud costs and improve your overall efficiency.

2. Leverage the Right Pricing Model

Leveraging the right pricing model is a game-changer for cloud cost optimisation. With a variety of pricing options offered by cloud providers, choosing the right one for your workload can make a big difference in your overall costs. From reserved instances to spot instances, on-demand instances to committed use contracts, each pricing model has its own advantages and disadvantages.

If your workload has predictable usage patterns, you can save money by committing to reserved instances or committed use contracts. But if you have variable demand, using spot instances or on-demand instances can offer more flexibility. By understanding your workload and choosing the most suitable pricing model, you can optimise costs and get the most out of your cloud investment.

3. Increase Elasticity

Increasing Elasticity allows you to match your resource utilisation to your workload demands, thereby avoiding the need to overprovision resources. This means that you can turn off resources when they are not needed, reducing idle resources and associated costs.

In traditional IT environments, hardware and infrastructure are usually provisioned for peak usage and are rarely turned off. This leads to higher costs as the infrastructure is running even when not fully utilised. In contrast, cloud services provide the ability to dynamically scale up or down the resources based on demand, allowing you to only pay for what you use.

For example, if your application workload is lower during off-peak hours, you can reduce the number of resources you are using, and subsequently reduce your costs. Similarly, if there is a sudden increase in demand, you can scale up the resources to meet the demand, and then scale down once the demand has subsided.

By leveraging the elasticity of cloud services, you can optimise your cloud costs by reducing idle resources and only paying for what you use.



4. Optimise Storage

Optimising your storage can make a big impact on your cloud costs. Cloud providers offer various storage tiers at different prices, each designed to meet different performance needs. By identifying the most appropriate destination for specific types of data, you can reduce the cost of storing data in the cloud while maintaining the required performance and availability. By optimising your storage choices, you can significantly reduce your overall cloud storage costs.

5. Measure, Monitor, and Improve

Measuring, monitoring, and improving your cloud utilisation is key to effective cost optimisation. Set goals, track usage, identify inefficiencies, and optimise resource allocation. Use tools like CloudCheckr, CloudHealth, AWS Cost Explorer, Google Cloud Cost Management, Azure Cost Management and Billing and more to accurately allocate costs, prioritise cost-saving measures, and ensure that your cloud investment is being used efficiently. By doing so, you can optimise your costs over time and meet your business needs effectively.

6. Tagging and Labelling

Tagging and labelling is the secret weapon for cloud cost optimisation. With this essential practice, you can categorise cloud resources based on attributes like project, application, team, department, or cost centre. This enables you to track usage and costs more accurately, achieving financial transparency and accountability.

In larger organisations, tagging and labelling can help you manage and optimise resources effectively. By identifying underutilised resources and redundant services, you can streamline your cloud infrastructure and reduce costs. You can also automate resource management, such as shutting down incorrectly tagged resources.

To make this practice work for you, establish a clear tagging strategy with naming conventions, tag values, and responsible parties. Consider using automated tagging tools or scripts for consistency and accuracy across your cloud environment.

Invest in tagging and labelling for significant cost savings, operational efficiency, and better resource management.



5 Best Practices For Selecting A Cloud Partner

1. EVALUATE YOUR NEEDS

Before selecting a cloud partner, it is essential to evaluate your needs carefully. Determine what resources you need, what level of support you require, and what your budget is.

2. CONDUCT DUE DILIGENCE

Do your research and evaluate several cloud providers. Compare their services, features, and costs. Make sure they can meet your requirements, and their service is reliable.

3. CHOOSE THE RIGHT PARTNER

Look for a partner that offers cost-optimisation features, such as automated scaling, cost monitoring, and reserved instances. These features can help you reduce your cloud costs significantly.

4. MONITOR YOUR EXPENSES

Ensure that your partner will offer you reporting that will help you track your actual cost optimisation benefits over time

5. PLAN FOR THE FUTURE

Plan for the future and choose a cloud partner that can support your long-term goals. Consider your future needs, scalability, and the ability to adapt to changing requirements.

How Can Deimos Help You Reduce Your Cloud Bill?

Deimos offers effective solutions to reduce your cloud expenses and optimise your operations. We understand that cloud cost optimisation can be a time-consuming task that distracts highly-skilled resources from achieving business objectives. That's why we provide cost optimisation services that allow your team to focus on core operations.

Our 5-step cloud optimisation process includes:

1

Observe: The objective of the cost optimisation exercise is to gain a deeper understanding of service expenditures and identify areas with the greatest potential for savings. We will also consider client pain points and tailor our approach to meet their specific needs

2

Scope: Once the focus areas have been identified, it is essential to review and approve the scope with you. This process ensures that we are all on the same page and have a clear understanding of the project's objectives and deliverables. During the scope review, we will discuss the access required to specific services and any other relevant details. This step is crucial to ensure that the project runs smoothly and that all necessary resources are available.

3

Analyse: Access to your Cloud Platform will be required for this stage of the interaction. Once Deimos has been granted the necessary permissions, we will conduct a thorough review process, utilising both automated and manual methods, to identify potential opportunities for cost savings

4

Optimise: The outcome of the cost review is compiled into a report and is shared and reviewed with you. Following the review, the appropriate actions will then be put in place.

5

Repeat: Continuous reviews of the existing infrastructure for further cost savings is essentially therefore we take our time to work with you to empower teams to take ownership of their cloud usage with budgets, clear visualisations and reporting on team levels.

Why Partner with Deimos?



We're An Official Amazon Web Services (AWS), Microsoft Azure, Huawei and Google Google Cloud Platform (GCP) Partner

That means cloud providers trust our team of engineers implicitly. Having handpicked over 100 of the best specialists in cloud-native technologies, we deliver better architect solutions, security, and value.



We Offer Better Payment Terms Than The Providers Themselves

With Deimos, you never have to worry about hitting your credit card limit again. As an official Cloud reseller, we are able to provide you with a flexible payment term (25 days), payable in a variety of currencies.



Unlimited Access To Our Expert Team

Do you have a question about Huawei, GCP, AWS or Microsoft Azure? We've got the answers. Deimos provides you with unlimited access to our team of specialist engineers.



Discounts, Incentives & Preferential Rates

As a Huawei, GCP, AWS and Microsoft Azure partner, Deimos can negotiate better rates and discounts directly with the cloud provider, on your behalf .



Billing Partnership

Partner with Deimos, and we will take care of all your cloud billing needs through our expert billing administrators. We'll guide and assist you with any queries and inform you of potential savings or discounts to take advantage of.



We're Accredited Across All Major Public Clouds & Cloud-Native Technologies

Our engineers are professionally certified across all major public clouds and cloud-native DevOps and SecOps tools.

- Certified Kubernetes Administrator (CKA)
- Certified Kubernetes Application Developer (CKAD)
- Certified Kubernetes Security Specialist (CKS)
- Professional Cloud Security Engineer Certifications
- Professional Cloud Architect Certifications
- Professional Cloud DevOps Engineer Certifications

Want to find out how much you could be saving each month? Click [here](#).