



FinOps 101 Cut Costs & Optimise Your Cloud



Cloud technologies have revolutionised the digital landscape for businesses. From providing unlimited storage for data analysis to streamlining operations and enabling real-time collaboration, the cloud is integral to modern business.

Yet, as businesses increasingly rely on AWS cloud services, managing and optimising costs becomes paramount. But, we know that the complexities of AWS cost optimisation can be daunting to many organisations.

An average of 30% of cloud spending goes to waste each year, representing a substantial financial redundancy that your business can cut out. Mismanagement, a lack of visibility, and poor cloud practices can radically reduce the efficiency of cloud systems.

In this eBook, your business will learn to overcome the challenges of AWS cost optimisation. We'll detail how to implement effective strategies that slash cloud costs, for good!

From exploring the benefits of Automated FinOps to establishing a Cloud Centre of Excellence and conducting Well-Architected Reviews, we cover everything you need to know to maximise cost savings in the cloud.

If you're looking to implement FinOps and get control of your cloud budget, keep scrolling.



30%

An average of 30% of cloud spending goes to waste each year

Contents

Your Roadmap to Better FinOps Cloud Management

Chapter 1: Automated FinOps for Cost Optimisation

- 05 What is Automated FinOps?
- 06 How to Leverage Machine Learning for Cost Analysis
- 06 Implementing Automated Cost Optimisation Strategies
- 07 Automated FinOps Provides Real-Time Cost Monitoring

Chapter 2: Building a Cloud Centre of Excellence (CCoE)

- 10 How to Establish a Cross-Functional CCoE Team?
- 10 Defining Cost Optimisation Goals and Strategies
- 11 Implementing Best Practices for Cost Management
- 12 Driving Continuous Improvement and Cost Awareness

Chapter 3: Conducting Well-Architected Reviews for Cost Efficiency

- 15 Assessing Cost Optimisation in AWS Infrastructure
- 15 How Can My Business Identify Cost Optimisation Opportunities?
- 16 Implementing Recommendations for Cost Savings

- 18 **Why Choose Bytes As Your Partner?**

Chapter 1

Automated FinOps for Cost Optimisation

Modern cloud environments are dynamic and changing by the minute. In the context of this expanding digital landscape, manual cost optimisation strategies are no longer sufficient to keep up with the dynamic nature of cloud systems.

So, how can a business harness the extensive advantages of using cloud environments without costs spiralling out of control? The solution lies in Automated FinOps.

Automated FinOps revolutionises the way businesses manage and optimise costs in AWS, leveraging the power of automation and data-driven insights.

In this chapter, we'll turn to the key components of Automated FinOps and how they enable organisations to achieve unparalleled cost efficiency in the cloud.

If you're one of the 60% of companies that believe their cloud costs are too high, this is for you.



What Is Automated FinOps?

Automated FinOps is a system of tools that help streamline, optimise, and automate the core processes related to cloud management. Automated FinOps combines leading financial management practices with the power of automation to pinpoint and mitigate cost inefficiencies.

Here are some sample tasks that Automated FinOps can streamline:

- **Resource Tagging:** Organise resources with automated tagging solutions for easy management and optimisation.
- **Cost Allocation:** Distribute and analyse the cost expenditure and usage over different projects or departments.
- **Budget Management:** Create budget blocks and guidelines that automatically control cloud resource usage.
- **Resource Consumption Adjustment:** Adjust resource usage based on pre-defined criteria to monitor performance and optimise costs.
- **Dynamic Scaling:** Scale storage and compute resources up or down for optimal usage.
- **Forecasting:** Use historical usage data to predict potential future cloud spending and adapt ahead of time.
- **Policy Management:** Create and enforce cost optimisation policies that follow leading governance.

Automated FinOps gives organisations better visibility into their cloud spending and helps make data-driven decisions to optimise costs effectively.

How to Leverage Machine Learning for Cost Analysis

Businesses can harness the power of machine learning algorithms within Automated FinOps to manage cost analysis rapidly and effectively.

Machine learning (ML) algorithms play a crucial role in Automated FinOps. By analysing vast amounts of data to identify patterns, anomalies, and cost optimisation opportunities, ML can help your business implement cost-saving measures.

ML algorithms can process data much faster than manual or traditional data analysis tools. These algorithms can rapidly process millions

of data points and produce concise and precise summaries of what they find.

Your business can use these algorithms to forecast future spending trends, pinpoint areas with potential cost savings, and even detect inefficiencies in your cloud management in real time.

Leveraging machine learning empowers organisations to proactively manage and optimise their AWS costs.

Implementing Automated Cost Optimisation Strategies

Drawing from various methods – like leveraging ML, data analytics, and predictive modelling – Automated FinOps offers a range of cost optimisation strategies that you can implement into your AWS environment.

Automated FinOps extends beyond individual cost optimisation strategies to provide a holistic method of managing cloud costs in your organisation. As over **60% of corporate data is stored in the cloud**, cost optimisation strategies can radically cut costs and optimise spending.

With Automated FinOps, businesses gain a deeper insight into their cloud spending patterns and identify areas that need optimisation. This holistic approach enables organisations to make informed decisions and continuously refine their AWS environment to achieve optimal operational efficiency.

From rightsizing instances and optimising reserved instances usage to implementing spot instances and managing storage costs, automated tools and scripts enable organisations to optimise costs continuously without manual intervention.





Ready to cut your cloud costs with the power of automation?

Bytes can help you understand and quantify your environment free of charge. By working with Bytes, you will also access deeper levels of discounts for no more commercial risk – sounds good right?

Speak to a Bytes expert to discover how we can help you optimise your cloud costs.

email AWS@bytes.co.uk

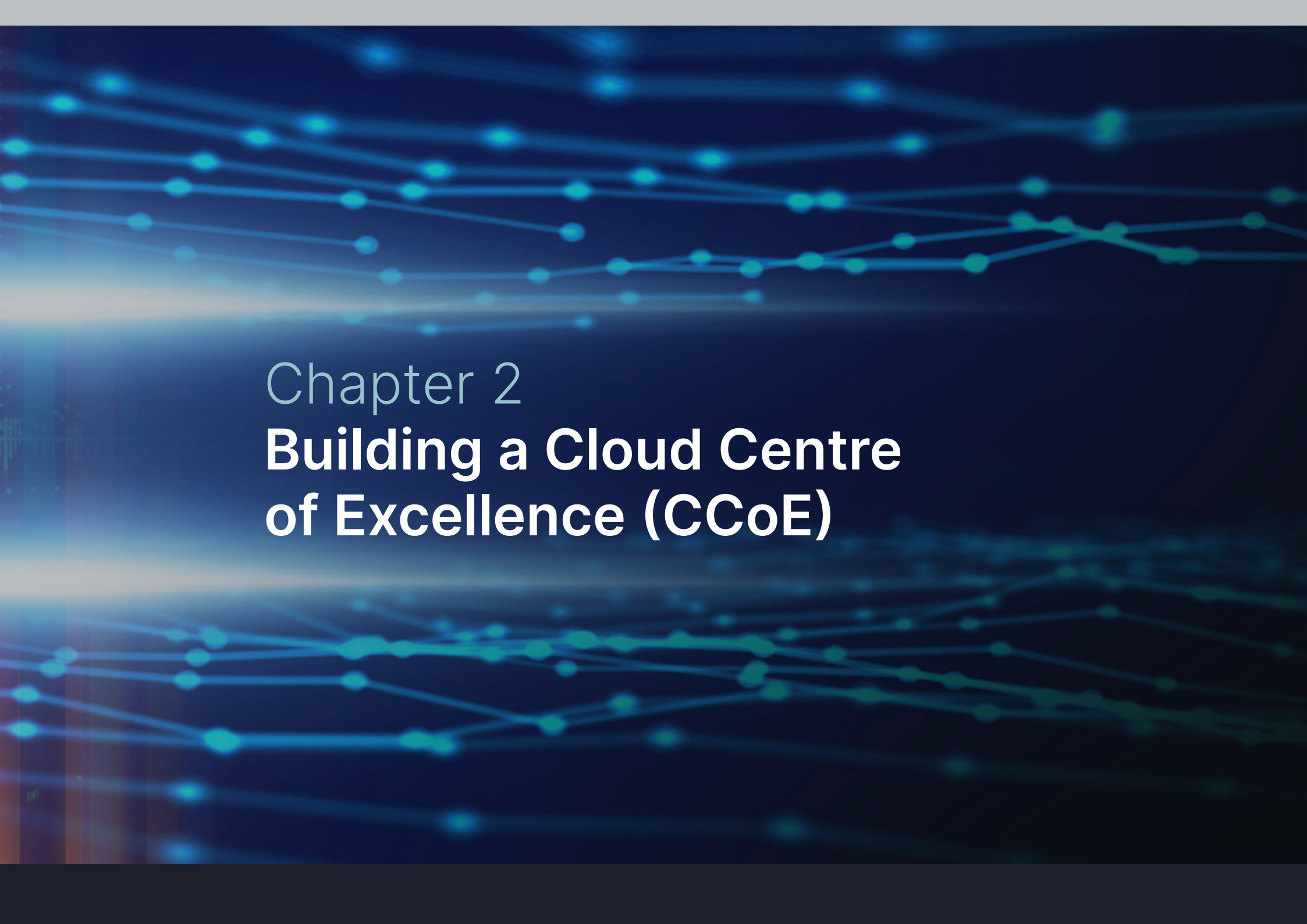
Automated FinOps Provides Real-Time Cost Monitoring

Automated FinOps isn't a one-and-done solution. On the contrary, it continuously provides insight and comprehensive data that your business can use to decrease cloud spending.

An integral component of Automated FinOps is real-time cost monitoring and alerting. These functions provide organisations with detailed insights into their cloud expenditure that actively update to reflect the current state of cloud usage.

By creating thresholds for automated alerts, compliance managers, data owners, and even stakeholders can receive timely notifications. This proactive strategy allows data champions in your organisation to avoid expenditure spikes and prevent budgetary deviations before they escalate into pressing events.

Beyond just a set of tools, Automated FinOps represents a new frontier for cloud management. It provides businesses with the systems, capabilities, proactive insight, and data-driven agility that allow them to monitor and optimise cloud spending in real-time.

The background of the slide is a dark blue gradient with a complex network of glowing blue lines and dots, resembling a data network or a neural network. The lines are thin and connect various points, creating a sense of connectivity and flow. The dots are small and bright, adding to the overall digital aesthetic.

Chapter 2
**Building a Cloud Centre
of Excellence (CCoE)**

Cloud excellence doesn't happen overnight. Especially in complex or multi-cloud environments, organisations struggle with juggling all the tasks that a typical cloud requires.

A powerful step toward transforming cloud management is establishing a Cloud Centre of Excellence (CCoE). A CCoE is a strategic initiative that empowers organisations to establish a dedicated team and framework for driving optimal cloud usage – both in terms of cost and function.

In this chapter, we'll explore how to lay the foundation for a successful CCoE, focusing on optimisation and cost management in AWS environments.

If your organisation is struggling with cloud governance, then this chapter is for you.



A powerful step toward transforming cloud management is establishing a Cloud Centre of Excellence (CCoE).



How to Establish a Cross-Functional CCoE Team

The first step to constructing an effective Cloud Centre of Excellence is to lay the foundations with a cross-functional CCoE team.

Establishing a cross-functional CCoE team brings together expertise from across your organisation, drawing upon individuals from IT operations, finance, stakeholders, and management. A wide range of skill sets builds the comprehensive coverage you need to rapidly develop, launch, and maintain initiatives.

Each member of the CCoE team brings unique experiences to the table. Your finance professionals may offer advice on budgeting or reflect on the financial impact of using cloud services. Your IT department will offer the technical insight to streamline cloud architecture. Managers and stakeholders will provide the internal governance and power to bring identified opportunities to life.

By collaborating across several departments with regular meetings that discuss current challenges and potential solutions, your CCoE team will foster a culture of knowledge sharing. Over time, the CCoE team will be the driving force of continuous improvement and innovation efforts in the cloud.

Defining Cost Optimisation Goals and Strategies

As knowledgeable as the individuals that comprise your CCoE team may be, you'll need clear insight and goals to get your project on track.

Defining clear and measurable cost optimisation goals is essential for guiding the CCoE's efforts and aligning them with your organisation's overall objectives. Whether it's reducing cloud spending by a certain percentage, optimising specific AWS services, or improving cost visibility, setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals enables organisations to track progress and measure success.

By using the SMART framework, your business can develop realistic objectives that will point your business toward success. With a clear vision, continuous monitoring, and collaboration, you'll be able to set your CCoE in action.



SPECIFIC

The goal is concrete and tangible - everyone knows what it looks like



MEASURABLE

The goal has an objective measure of success that everyone can understand



ATTAINABLE

The goal is challenging, but should be achievable with the resources available



RELEVANT

The goal meaningfully contributes to larger objectives like the overall mission



TIMELY

The goal has a deadline or, better yet, a timeline of progress milestones

Implementing Best Practices for Cost Management

Armed with a collaborative team of professionals and clear objectives for your CCoE, it's time to implement leading strategies for cost management.

Implementing best practices for cost management services is the foundational infrastructure that your business needs to achieve cost optimisation within the Cloud Centre of Excellence. Adhering to the standard industry practices and leveraging the various tools available to you, your organisation can radically decrease cloud costs and maximise the value of your cloud investment.

Businesses can implement the following best practices to improve cost management:

- Cost allocation policies
- Tagging strategies for resource attribution
- Enforcing budget controls
- Leveraging [AWS Cost Explorer](#)
- Utilising other cost management [tools recommended by Bytes](#)

By combining the leading practices listed here with the specialised tools and systems you have available to you, your business will build the stable foundation it needs to get more from your cloud with your CCoE. Efficiency, innovation, and true value in your cloud are all within reach.



“

It's time to implement leading strategies for cost management

Want to improve cloud governance, reduce costs, and transform your business? Here's how Bytes can help.

Whether you're thinking of migrating or are already in the cloud, Bytes can support you with defining and implementing best practices, standards and policies across the AWS infrastructure by helping your business incorporate a CCoE.

Speak to a Bytes expert to discover how we can help you optimise your cloud costs.

AWS@bytes.co.uk

Drive Continuous Improvement and Cost Awareness

The job isn't finished after implementing the best practices into your CCoE. On the contrary, now the real race begins.

Driving continuous improvement in your cloud is one of the fundamental pillars of your Cloud Centre of Excellence and will result in improved cost optimisation over time. Regularly reassessing and enhancing cost optimisation tactics in response to evolving technological and business requirements, will enable your business to promptly adapt to emerging trends and maintain optimal efficiency.

Alongside technological and strategy shifts, cultural changes are at the heart of the CCoE. Fostering a culture of awareness and engagement in the cloud will help elevate the importance of cost management and empower your employees to make intelligent decisions when using cloud workflows. Additionally, a cloud-first culture will help to improve accountability, which will further improve cost management in the long run.

By offering training for your employees and cementing the cloud at the centre of your organisation, the cultural shift that you enact will help redefine your company's relationship with modern cloud technology.

An agile, responsive, and proactive workforce will enable you to continuously engage with evolving cost management practices and always stay one step ahead of the curve.



Chapter 3
**Conducting Well-Architected
Reviews for Cost Efficiency**

THE SIX PILLARS OF THE WELL-ARCHITECTED FRAMEWORK



SECURITY



RELIABILITY



PERFORMANCE



OPERATIONAL
EXCELLENCE



COST



SUSTAINABILITY

SOURCE : THE SIX PILLARS OF THE WELL-ARCHITECTED FRAMEWORK

Another critical aspect of cost efficiency when managing workloads in AWS is assessing and improving operational infrastructure. Well-Architected Reviews serve as a foundational pillar for ensuring the reliability, security, and cost optimisation of workloads in AWS.

Well-Architected Reviews are six core pillars that shape how your business utilises AWS services:

- **Operational Excellence:** Do your systems run effectively while providing maximum business value?
- **Security:** Is your organisation able to protect your integral systems, data, and information while achieving all your business goals?
- **Reliability:** Does your infrastructure experience significant disruptions or downtime?
- **Performance Efficiency:** Can your cloud shift and evolve to meet emerging and changing resource requirements?
- **Cost Optimisation:** Can your systems deliver value at a price point that is accessible and sustainable to your organisation?
- **Sustainability:** Does your business address long-term environmental, economic and societal impact of your business activities?

In this chapter, we dive into how organisations can leverage the AWS Well-Architected Framework to conduct comprehensive reviews focused on optimising costs and maximising value. We'll explore the Cost Optimisation pillar of the AWS framework in detail, providing your business with methods to minimise expenditure.

With cloud spending increasing by over **64% annually**, this chapter will help any business that's looking to optimise spending in the cloud.

Implementing Best Practices for Cost Management

Armed with a collaborative team of professionals and clear objectives for your CCoE, it's time to implement leading strategies for cost management.

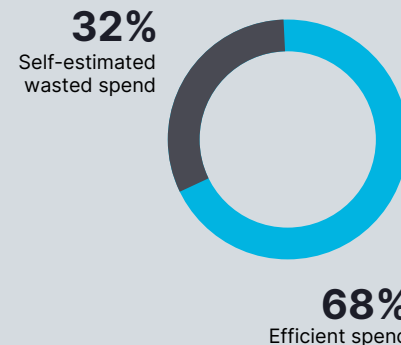
Implementing best practices for cost management services is the foundational infrastructure that your business needs to achieve cost optimisation within the Cloud Centre of Excellence. Adhering to the standard industry practices and leveraging the various tools available to you, your organisation can radically decrease cloud costs and maximise the value of your cloud investment.

Businesses can implement the following best practices to improve cost management:

- Cost allocation policies
- Tagging strategies for resource attribution
- Enforcing budget controls
- Leveraging AWS Cost Explorer
- Utilising other cost management tools recommended by Bytes

A thorough assessment of the Cost Optimisation pillar of the AWS Well-Architected Framework will help align your business objectives to cloud usage while boosting cost efficiency.

Respondent self-estimates of wasted cloud spend for all organisations



SOURCE : FLEXERA 2023 STATE OF THE CLOUD REPORT



How Can My Business Identify Cost Optimisation Opportunities?

A holistic approach to cloud management will help assess and identify potential areas for cost efficiencies. Although small changes in many areas may not feel significant, they can add up to tremendous savings.

Considering that spending in the Public Cloud market alone is set to reach over **\$690.3 bn** in 2024, billions of dollars each year are wasted due to cost inefficiencies. Conducting comprehensive reviews and pinpointing new inefficiencies can help your business to reduce cloud wastage to zero.

There are several key areas where your business can identify cost optimisation opportunities:

- Resource utilisation analysis
- Instance sizing optimisation
- Storage usage review
- Architectural design assessment
- Cost monitoring and anomaly detection
- Continuous optimisation efforts

By leveraging tools such as [Bytes AWS Optimisation](#), AWS Trusted Advisor, Cost Explorer, and Cost Anomaly Detection, your business can identify opportunities to reduce costs, eliminate waste, and optimise resource usage effectively.

Implementing Recommendations for Cost Savings

Once you've identified potential areas for cost savings, it's time to implement strategies to make them a reality.

Implementing recommendations for cost savings is the final step in the Well-Architected Review process. It involves prioritising actionable recommendations based on their impact and feasibility, implementing changes to optimise costs, and monitoring the results over time.



Here are four easy steps to implementation:



1. **Prioritisation of Recommendations:** Your research and assessment may have identified several areas that your business could use to generate cost savings. Identify the initiatives that offer the highest potential return on investment and start there. Not only does this guarantee faster results, but it will generate positive returns to show stakeholders



2. **Develop an Action Plan:** Based on the order you've determined, write up a detailed action plan that outlines the steps involved at each stage. Referring back to your CCoE team, you can take a hands-on approach to achieve maximum efficiency here. Assign different teams with clear responsibilities to improve accountability and facilitate rapid integration.



3. **Integrate Changes and Test:** Execute your action plan by implementing the changes you have identified in the order set out by your plan. Depending on your specific strategy, this could involve any number of changes. By leveraging automation where possible, you can streamline this step and ensure consistency. Before launching, be sure to test and validate that you have not compromised the security, reliability, and performance of your cloud environment.



4. **Continuous Monitoring and Improvement:** As with all effective cloud transformations, continuous monitoring and improvement will help to track cost savings and locate new opportunities for future iterations.

By following these steps, your business will significantly reduce AWS cloud spending while maintaining – or potentially even enhancing – performance.

Want to unlock the potential of your cloud infrastructure and save money? Here's how Bytes can help.

Bytes will evaluate your AWS framework and identify areas of improvement and high risks needing immediate action. If 'cost' is your main concern, then we can start with this as part of our process to achieve maximum cloud efficiency.

Mitigate Cloud Cost Expenditure and Streamline Your Cloud Infrastructure Today

In this eBook, we've covered the core areas your business should consider when optimising AWS cloud usage. We've provided central insights and industry-leading strategies to help you effectively manage and reduce cloud costs.

Whether you're just starting your cloud cost optimisation journey or looking to refine your existing practices, the tools and techniques outlined in this eBook will empower you to slash cloud costs and maximise the value of your AWS investments.

Embrace the byte-sized strategies presented here and embark on a path towards great cost efficiency in the cloud.



Speak to an expert about [Bytes AWS Well-Architected Reviews](#) to really make a difference with your cloud costs.

AWS@bytes.co.uk

Why Choose Bytes as Your Partner?

Optimising your cloud infrastructure to cut costs and become more efficient can be challenging, especially as your organisation grows and evolves. Dynamic cloud environments will continuously shift in response to changing business demands.

Optimising your cloud infrastructure will help your business rise to any challenge, scale as your company grows, and continually find cost savings throughout the process.

By partnering with experts like Bytes, you can leverage our expertise in cloud optimisation and management. With years of experience, we offer effective cost optimisation to save your business more while achieving operational improvements.

Together, we can ensure that your AWS environment aligns with industry best practices, reducing risks, improving overall performance and, most importantly, saving money.

We regularly win awards for our value and service.

Service Delivery Programmes



AWS Awards



Get in touch

Speak to the team today to discuss
your AWS infrastructure requirements

Talk to us today

AWS@bytes.co.uk

01372 418500

bytes.co.uk

