



eBook

---

# Reclaim your cloud budget

The ultimate guide to complete cloud ROI



# Table of contents

- 03 Overview
- 05–07 Chapter 1: Cloud cost monitoring & optimization
- 08–10 Chapter 2: Security & compliance
- 11–13 Chapter 3: Automation
- 14 ROI case study
- 15 Takeaways
- 16 Applying your ROI tool kit

# Overview

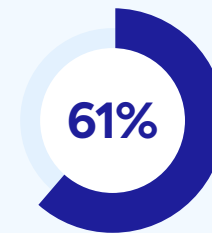
## Cloud isn't just an investment; it's an opportunity.

As a technology manager, your responsibility is to understand and help express the true benefits of a digital transformation. It's for that reason that calculating your cloud infrastructure return on investment (ROI) not only requires focusing on financial gain, but on opportunity gain as well. We call this concept return on opportunity.


61% of cloud practitioners say they do not do a good job managing cloud usage and costs, according to a 2021 survey conducted by Dimensional Research. In this eBook, we will teach you how to reclaim your cloud budget by giving you a guide to bolstering ROI with effective cost monitoring and optimization, security and compliance, and automation. Your organization can apply these strategies at any time regardless of your stage in the cloud journey.

Look out for **Tool Kits** in each chapter to learn how CloudCheckr can help you carry out your ROI goals!

As you move through the methods and best practices described here for optimal ROI, you'll see the ongoing theme of opportunity. When you save time, money, and personnel hours on IT, you not only reclaim your budget—you also reclaim your new services to customers and solidify your competitive advantage in the market.



**61%** of cloud practitioners say they do not do a good job managing cloud usage and costs.



Committing to the cloud empowers organizations to swiftly create new opportunities and become more dynamic while reducing costs. Enabled by rapid deployment and low barriers to entry, organizations like yours are leveraging the ability to scale, deploy or tackle new problems like never before. What is often missing is a set of guardrails to govern, monitor and provide total visibility into rapidly evolving cloud environments.

Nearly a decade ago, CloudCheckr, now part of Spot by NetApp, was created to help provide visibility, control and granular management at scale. We learned that it was not only important to monitor what is going on, but to provide the insight to ensure our customers' clouds are cost efficient, secure and compliant. We've grown up with the cloud; our expertise is built upon our deep experience managing over \$4 billion in annual cloud spend. We continue to innovate for our customers and partners to ensure we're meeting their rapidly evolving needs. This continuous collaboration helps us deliver on our promise of total visibility, deep insight and comprehensive governance.

This eBook explores the numerous benefits of implementing cloud management tooling to drive tangible return on investment while ensuring your cloud environment is optimized and compliant. You'll also get first hand insight into how we leverage CloudCheckr internally to get the greatest return out of our own cloud investment, reduce overall IT expenses, secure our environments, and increase bottom-line profitability.

## Cloud cost monitoring & optimization

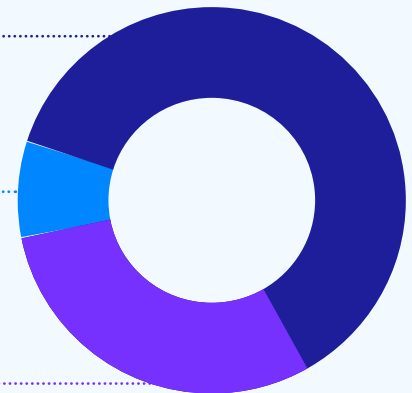
Compared to on-premises infrastructure, which is financed by fixed upfront investments, cloud value is exchanged based on everyday consumption. This requires a huge shift in your approach to operational management, where optimizing cost becomes just as important to ROI as optimizing performance.

### When it comes to public cloud management, decision-makers say

62% .....  
We do not monitor or optimize our public cloud costs

8% .....  
We monitor costs, but cannot always use that information to optimize them

31% .....  
We monitor and optimize costs



# Building your strategy



## Architecture

To get the foundations right, begin by architecting your applications to make efficient use of your cloud infrastructure. Bear in mind that the additional resources required for fault-tolerance do come at a cost. You'll need a backup system that takes advantage of the most economical storage options, while also meeting your failover and data recovery objectives.



## Resource management

Central to your cloud strategy is the concept that you pay for your cloud infrastructure whether you use it or not. Removing unused and underutilized resources and preventing cloud sprawl will be central to your optimization strategy. Likewise, you should avoid unnecessary waste by continually right sizing instances so they deliver the right balance between performance and cost.



## Budget optimization

In a complex enterprise cloud environment, you need to take an active approach to keeping costs in check across a diverse array of compute, storage, database, and other infrastructure services. Understanding how resources are allocated for each cloud provider, and optimizing them, can easily become a massive undertaking.

# Your cost management tool kit

## Key CloudCheckr capabilities



### Cloud spend optimization

Generate the largest possible savings with predictive analytics and actionable purchasing recommendations for resources like Reserved Instances (RIs).



### Resource rebalancing

Receive intelligence on more cost-effective ways to deploy your workloads—from replacing general-purpose instances with alternatives designed for specific use cases to upgrading to the latest generation of instance or storage type—for better performance, often with a better price and more efficient utilization.



### Cost best practices

Check against hundreds of best practices that continuously monitor AWS, Microsoft Azure, and Google Cloud Platform to identify idle resources, unused instances and VMs, EC2 Reserved Instance mismatches, and more.

# Security & compliance

Security breaches can become extremely costly and completely negate your cost-saving efforts. Failure to follow crucial best practices around policy enforcement, monitoring and compliance can wreak havoc on your cloud environment and overall ROI.

Continuously monitoring cloud activity and configuration changes can help avoid common cloud pitfalls that lead to burgeoning costs.

IaaS decision-makers say the most important Cloud Management Platform (CMP) capabilities are:

- 1 Ability to operate in high-security environments**
- 2 A single governance platform across their organization**
- 3 Audit-ready reports**



# Building your strategy

To maintain governance over a complex, dynamic cloud infrastructure, you need a security and compliance strategy. Consider these elements when establishing your plan:



## Monitoring and reporting

It is important that you oversee and track both the state of your cloud environment and user activity within your cloud. For example, you should know when someone adds or amends a user profile, spins up new instances, or makes changes to existing resources.



## Comprehensive inventory mapping

In a rapidly changing environment, it's essential you have full visibility into all your resources. Track sprawling assets, pinpoint changes and manage resources with multi-account inventory reporting. Knowing what is running at any one time is critical to being able to protect your environment.



## Activity alerts

Being aware of critical changes to configurations, resources and security groups is key. Examples of this include when a user makes changes to user access privileges or changes the range of IP addresses allowed to access a resource.



## Traditional security control

Although the cloud is a different kind of IT environment from on-premises infrastructure, security threats are still fundamentally the same. Therefore, the right cloud-based tools will incorporate traditional security measures like identity management, firewalls, and incident detection and mitigation, in addition to cloud-based tactics.



## Best practice checks

The leading cloud providers offer a variety of configuration options for managing your security. While this gives you the flexibility to tailor your settings to your exact needs, more options also mean broader scope for security loopholes. Best practice checks help you stay on top of this complexity and maintain compliance by flagging events and configurations, such as user access outside of normal business hours, failed or unauthorized login attempts, and API access from unidentified IP addresses.

# Your security & compliance tool kit

## Key CloudCheckr capabilities



### Lock-down roles & permissions

Ability to automate the tracking of IAM and permissions by mapping and grouping all user accesses, centralizing control across accounts.



### Configuration & changes

Gain visibility into the state of your public cloud and alerts about critical changes to configurations, resources, and security groups.



### Security best practice checks

Leverage hundreds of critical pre-built cloud security and compliance best practice checks and customizable alerts stemming from standards, regulations, vendor recommendations, and our in-house expertise.

# Automation

The public cloud is dynamic, therefore the actionable strategies discussed above need to be repeated continuously. Maintenance and ongoing management of your public cloud infrastructure can be fulfilled by manually checking each area, but this is time-consuming and can be impacted greatly by human error— both costly to any organization.

To achieve greater return on investment and opportunity, you can lean on automation. When you automate critical tasks across your cloud environment, like reporting and alerts, it becomes easier to maintain agility and innovation at scale.



**More than half of cloud users  
rely on third-party cloud  
management solutions to  
supplement native tools.**

## Building your strategy

Automation improves operational efficiency by taking action on key tasks in your environments, like monitoring changes and permissions, which in turn reduce your public cloud costs and improve security.



### Avoid significant cloud sprawl

A cloud infrastructure is intangible, so it's easy to lose track of how yours is growing and how much you're spending. It can also be easy to let all functions run all of the time, which is why turning off services when they aren't in use can significantly reduce expenses. Automation limits cloud sprawl by monitoring resource costs and tools like Heat Maps can suggest when to reduce them.



### Reduce human error

When systems become large and complex, human error is almost inevitable. From S3 storage permission issues to unattached block storage, the list of possibilities goes on. Thankfully, applying consistent governance to your cloud-based applications and data simply requires ensuring best practices are always followed. Cloud automation will minimize the opportunities for human error and ensure not only that you're complying with relevant data protection laws but also your own corporate policies regarding data management.



Strategy should have some human touch, while implementation, in most cases, is best done through automation.



# Your automation tool kit

## Key CloudCheckr capabilities



### **Security & compliance**

Identify and fix security and compliance issues programmatically via SnapBack™, guardrails and automated security group cleanups.



### **Cost optimization**

Automatically reallocate purchasing options to ensure proper usage. Restore, resize, and terminate Redshift and RDS clusters, and adjust DynamoDB to match capacity needs.



### **Automation best practice checks**

Receive actionable best practice checks integrated directly into the platform. Customizable dashboards allow button-click fixes for cost, security and utilization.

# ROI case study

## How CloudCheckr uses CloudCheckr CMx to optimize its own cloud infrastructure.

CloudCheckr, now part of Spot by NetApp, is a “Cloud-First, Cloud Only” software development firm, with 100% of our SaaS (Software as a Service) solution running in the public cloud.

Our DevOps team uses CloudCheckr to right size computing instances, leverage Reserved Instance recommendations to make long-term commitments to earn greater discounts, and utilize EC2 Heat Maps and Instance Scheduling automation tools to identify and shutdown idle resources. CloudCheckr CMx ensures the company is not overpaying for underutilized resources.

CloudCheckr CMx frees up capital, personnel, and work hours to keep focus on core business values like developing world-class software. We can scale our virtual footprint efficiently and leverage cloud services to help us continually improve and optimize deployments. An example of this return on opportunity is our release of CloudCheckr CMx. CMx is a rewrite



**CloudCheckr CMx frees up capital, personnel, and work hours to keep focus on core business values like developing world-class software.**

of CloudCheckr’s flagship product and leverages modern technologies like microservices, serverless, and data lakes. The CloudCheckr CMx solution made adoption of new cloud services easier and more cost-effective. Our business saw immediate ROI by identifying usage patterns, waste, and “technical debt”, which enabled the reinvention of both the front-end and back-end that makes up the CloudCheckr CMx offering.

# Takeaways

**With this guide to ROI by your side, reclaiming your IT budget is within reach.**

When you operate in the public cloud, you want to achieve the potential cost savings that were promised. Yet, to recognize real ROI, enterprises, public sector agencies, managed service providers, and distributors need to apply cloud strategies that will help them attain optimized usage and performance with minimal overhead.

If you apply the methods and best practices described in this eBook, you'll not only see return on your cloud investment, but also return on opportunity. Cost optimization, security management, and automation work together to make complete ROI possible, giving you the capacity (and budget) to innovate for the future.



## Key takeaways:



**Continuous monitoring and insight is central to reducing waste and optimizing spend**



**Security management can impact cloud ROI just as significantly as cost management**



**Automation makes it easier to avoid critical errors while maintaining agility**



# Applying your ROI tool kit

See a 30% reduction in your monthly public cloud expenditure.

CloudCheckr helps modern enterprises, public sector agencies, managed service providers, and distributors grow profit margins and shrink expenses while securing the most sensitive environments. For managed service providers, cloud management platforms enhance existing IT offerings and form the foundation of successful cloud practices.

CloudCheckr CMx opens a window to your entire cloud IT infrastructure, taking the complexity out of managing public and on-prem resources. Customers save, on average, 30% of their monthly cloud bill through visible, actionable insights that reduce risks and ensure governance. Beyond the 30% direct public cloud cost reduction, users also realize a variety of operational benefits.



## Get started with CloudCheckr CMx

See how easy it is to achieve your ROI goals with CloudCheckr CMx. Contact your representative or sign up for a personalized [Cloud Management Assessment](#) to assess your potential savings today.



## Potential savings and ROI with CloudCheckr\*

Monthly public cloud bill	\$200,000
Average savings (incl. CloudCheckr charge)	\$200,000
CloudCheckr return <small>*based on list price</small>	<b>700+%</b>



## About Spot by NetApp

---

The Spot by NetApp portfolio enables cloud operations teams to deliver scalability, performance and security for cloud infrastructure and applications — at the lowest possible cost — through continuous automation and optimization combined with deep visibility and governance. From cloud-native startups to global enterprises and managed services providers, thousands of customers rely on Spot solutions to unlock the full value of the cloud.