

CLOUD OPTIMISATION

DONE THE SMART WAY



THE CLOUD PARADOX: WHEN AGILITY MEETS UNCHECKED COMPLEXITY

Cloud computing is like a souped-up sports car—it's fast, agile, and lets you explore new horizons. But much like a high-powered engine needs fine-tuning to run at peak efficiency, cloud infrastructure requires a careful balance to deliver its full potential. In 2023, the global cloud market hit a staggering \$626 billion, and it's set to double by 2028¹. Yet here's the challenge for 82%² of executives: How do you unlock the cloud's horsepower—without losing control?

The answer lies in optimisation—not just trimming costs here and there but shaping a cloud environment that fuels business growth efficiently and sustainably. Let's dig into the critical pillars of cloud optimisation and discover how to transform cloud spending from a cost concern to a competitive edge.

Cloud optimisation is meticulously harnessing cloud computing resources for optimal performance and cost-effectiveness. It entails a comprehensive analysis and fine-tuning of various facets of the cloud environment, ranging from resource allocation and workload placement to network configuration.

On the other hand, cloud cost optimisation combines strategies, best practices, and tools that reduce cloud costs, identify the most cost-effective way to run applications, and maximise business value.

THE CORE TRIO: FINOPS, CLOUDOPS, AND SECOPS—YOUR OPTIMISATION DREAM TEAM

This trio is the pit crew of cloud optimisation, each bringing a unique role to keep your cloud finely tuned. FinOps gives you a view of the entire track so you know where every dollar goes. CloudOps is the engineer, ensuring your engine runs smoothly at every turn. And SecOps? That's your safety officer, protecting your data like the valuable asset it is.

When they work in harmony, you have a cloud that not only drives value but also keeps surprises (like that jaw-dropping bill at month's end) to a minimum. Let's break it down.



FinOps: From cost control to strategic investment

FinOps is the financial side of cloud optimisation, and it's more than just watching the budget. Think of it as a financial GPS for your cloud—it shows exactly where every dollar goes and makes it easy for teams to take ownership of their spending. With real-time insights and a dose of predictive analytics, FinOps keeps costs from creeping up and turns cloud spending into a strategic asset. It's not about cutting corners; it's about making every dollar work smarter to fuel growth.



CloudOps: The engine of agility and efficiency

CloudOps is like the mechanic fine-tuning your cloud's engine to keep it running smoothly and efficiently. It's all about making sure resources are used exactly where they're needed—no more, no less. CloudOps encourages applications to be cloud-native, scaling up when demand spikes and staying lean when things are quiet. By profiling applications, balancing workloads, and using AI/ML for predictive performance, CloudOps transforms your cloud into a responsive, adaptable powerhouse that keeps up with your business needs.



SecOps: Security that scales with you

SecOps is the security framework that makes your cloud safe, resilient, and compliant—without slowing you down. It's more than just locks and firewalls; SecOps ensures data residency and compliance requirements are met, automates security policies, and continuously monitors for threats. In the ever-evolving world of regulations and cyber risks, SecOps is your proactive shield, protecting data and building trust while your cloud scales to meet new challenges.



THE SHIFT TO VALUE OPTIMISATION: CLOUD AS A CATALYST FOR GROWTH

When you hear “cloud optimisation,” it’s easy to jump straight to cost-cutting. But here’s the thing: true cloud optimisation isn’t just about saving a few bucks. It’s about **unlocking value**—making your cloud work smarter, harder, and more strategically.

Let’s talk about cost vs. value. While cutting costs is important, value optimisation is the real game-changer. Think of it this way: cost optimisation is like buying the cheapest bike in the shop, while value optimisation is finding the bike that’s worth every dollar because it fits your terrain and riding style perfectly.

Why cost-only optimisation falls short?

Focusing solely on cutting costs can backfire. Sure, you might reduce your cloud bill by downsizing instances or eliminating idle resources, but what if those changes hurt performance? Think of it like dieting: if you cut calories too drastically, you might lose weight at first, but you’ll soon find yourself lacking energy and struggling to function.

Value optimisation, on the other hand, is about using the cloud strategically to align spending with what the business actually needs to grow, innovate, and stay competitive. A stat from Flexera’s 2023 State of the Cloud Report drives this home: **41%** of organisations struggle to compare on-premises and cloud costs, while **37%** face challenges optimising costs post-migration.

The goal of value optimisation isn’t just cost-cutting but maximising what you get back from each cloud dollar. Instead of just asking, “What can we cut?” it’s reframing the question to “What can we gain?” Every dollar invested becomes a tool for resilience, agility, and long-term impact.

Purpose-built clouds

With value optimisation, companies are moving toward purpose-built clouds that are optimised for specific workloads. Spot instances for Kubernetes clusters, advanced analytics for processing-heavy apps, tiered storage for different data types—these aren’t just cloud choices but strategic business moves that ensure optimal performance and cost.

Value optimisation also means knowing when to pull back. Not every workload belongs in the cloud. High variability in workloads? Bring it to the cloud. But if it’s that one app with the same usage every day, maybe it’s better suited to on-premise.

Then there’s data management. Ask yourself: should this data be in a public cloud? Compliance, classification, and residency all play a role in deciding where data lives. It’s like figuring out which clothes need dry-cleaning versus what can be tossed in the washer—cloud-ready data needs preparation and purpose.

Periodic reviews help assess when workloads stop being cloud-optimal and need to be repatriated to on-premises infrastructure. This flexibility makes cloud environments adaptable and cost-smart.

YOUR ROADMAP TO EFFECTIVE CLOUD OPTIMISATION

Optimising your cloud isn't about doing everything all at once—it's about tackling the right things in the right order. Think of this roadmap as your step-by-step guide to turning your cloud from a cost concern into a growth engine. Ready? Let's map it out.

Phase 1: --- Foundation – Get grounded

Before you start making changes, you need to know where you stand. This phase is all about understanding your current setup and aligning it with your business goals.



Application profiling: Which workloads are cloud-ready, and which might be better off on-prem or in a hybrid setup? Profiling helps you figure that out and avoid overpaying.



Data classification: Not all data is created equal. Classifying it by sensitivity, importance and compliance needs ensures critical information is secured, while less sensitive data is stored cost-effectively.



Establish FinOps: Bring IT, finance, and business teams together with a clear financial framework. Think real-time tracking, spending goals, and a no-surprises approach to cloud costs.

Phase 2: --- Visibility and control – See and manage

Next up: making sure you know what's happening in your cloud at all times.



Real-time monitoring and alerts: Dashboards and alerts let you see performance and costs in real time. If something's off, you'll know about it before it becomes a problem.



Enable automation: Automate routine tasks like scaling, performance monitoring, and compliance. This isn't just about saving time—it's about creating a cloud that practically runs itself.

Phase 3: --- Optimisation – Fine-tune for efficiency

Now that you've got visibility, it's time to refine your cloud so it works smarter, not harder.



Performance audits and resource optimisation: Right-size your resources and align them with what your workloads actually need. No more paying for capacity you don't use.



Optimise storage and data management: Clean up outdated data, use tiered storage for cost efficiency, and ensure compliance with residency requirements.

Phase 4: --- Intelligence – Think ahead

Here's where you get proactive. Use advanced tools to anticipate and solve problems before they happen.



Apply AI/ML for predictive optimisation:

Forecast resource needs, prevent bottlenecks, and uncover cost-saving opportunities. It's like having a crystal ball for your cloud.



Enforce security and compliance standards:

Automate security policies and use anomaly detection to catch risks early. A resilient cloud is a trusted cloud.

Phase 5: --- Growth – Keep evolving

Optimisation isn't a one-and-done thing. The final phase is about staying ahead of the curve.



Continuous training: Upskill your team on new tools and best practices to keep your cloud running at its best.



Periodic strategy reviews: Revisit your cloud strategy regularly to adapt to new business goals or tech trends.



Unified cloud management platform: Use a single platform to manage your entire IT estate—on-prem, hybrid, or multicloud. One view, all the control you need.





UNLOCKING CLOUD SUCCESS: THE METRICS THAT MATTER

We all know that the cloud has transformed how we operate, but how do we know if we're getting the most out of it? Cloud isn't just a checkbox for digital transformation. It's a tool with incredible potential for driving cost-efficiency, agility, and innovation. The key to achieving these benefits? Measurement. Here's a breakdown of the must-watch metrics that tell you if your cloud strategy is working its magic—or just draining your budget.

1. Financial efficiency:

Seeing beyond the sticker price

Let's talk dollars and cents. One of the biggest traps with the cloud is losing sight of cost efficiency because it's flexible, and, yes, it's easy to scale—but it's also easy to overspend. That's where a few financial guardrails come in:



Cost monitoring: Look at those monthly invoices closely. Forecasting tools let you see your expenses before they hit the bottom line. By monitoring usage patterns, you can adjust early and avoid end-of-month billing shock.



Reserved vs. on-demand instances: Think of it as a mix of steady, reliable buys (reserved) and impulsive spending (on-demand). For predictable workloads, reserved instances give you discounts. But for bursts of activity, on-demand's the way to go. Striking a balance keeps costs in check without sacrificing flexibility.

2. Utilisation and efficiency:

Making every byte count

In the cloud, resources are abundant, but that doesn't mean they're free. Efficiency comes from knowing how much you are using versus what you're paying for.



Resource utilisation: Cloud optimisation means right-sizing. If resources are underutilised, it's time to reduce them or find a less costly option. Don't let CPU or storage linger at 30%—tighten up and save.



Automated scalability: With autoscaling, you only use (and pay for) resources when needed. Whether your website goes viral or it's a typical Tuesday, your resources adjust automatically, so you're never overspending.

3. Performance and stability: The behind-the-scenes heroes

Sure, the cloud can boost performance, but are you seeing those benefits? Optimised cloud infrastructure should give users a smooth experience without delays, downtime, or, heaven forbid, data loss.



System uptime and responsiveness: This one's simple—are your systems up and running when users need them? Track response times, cost-to-performance ratios, and how well your automated scaling adjusts. The goal? Optimise resources without slowing down, whether it's rush hour or quiet time.



Periodic architecture reviews: When applications move from on-premises to the cloud, they may need a redesign to thrive in a cloud environment. Regular architecture check-ins ensure everything is optimised for the cloud, not just dropped in as-is.

4. Security and compliance: Guardrails, not guesswork

Cloud security is like an invisibility cloak for your data; you want it to work without noticing it's there. But it's not just the provider's job to keep things safe—it's yours, too.



Role-based access and compliance checks:

This is 'access granted' with purpose. Assign specific roles to specific tasks and ensure no one has access beyond what they need. Stay proactive with security assessments—think of them as regular dental check-ups but for your cloud.



Continuous vulnerability scanning: Set up regular vulnerability assessments and penetration tests. This is essential because today's security setup could be tomorrow's risk.

5. Operational agility: Measuring the pace of progress

The cloud is here to make life easier, so something's off if it isn't reducing your time-to-market or operational burdens.



Agile management: Organisations rely on dashboards for real-time monitoring, alerts for quick action, and automation to adjust resources on the fly. Regular trend analysis ensures cloud usage is in sync with business needs and budgets, keeping operations efficient and cost-effective.



Time-to-market and CI/CD pipelines: If your dev teams are using CI/CD pipelines, they should be releasing updates and fixes faster than ever. Time-to-market isn't just a slogan—it's a powerful metric to show the efficiency of your cloud investment.

6. Business impact: Customer satisfaction meets cloud ROI

At the end of the day, optimised cloud operations should make users happy. Their experience and your internal productivity are two sides of the cloud success coin.



Customer satisfaction scores: This may be indirect, but if your cloud infrastructure is delivering reliable, fast, and responsive experiences, customer satisfaction should see an uplift. Track any positive or negative shifts here to tie cloud outcomes back to the customer experience.



Innovation enablement: If cloud optimisation is doing its job, your IT team will spend less time firefighting and more time innovating. Measure success here by tracking how many new projects get launched or how much time your IT department saves.



THE 'SMART' WAY TO OPTIMISE YOUR CLOUD

In the complex world of cloud, optimisation isn't a luxury—it's a necessity. Our smart optimisation approach redefines optimisation, making it achievable, efficient, and purpose-built for each stage of your cloud journey. We focus on aligning your cloud expenditures with what matters most: growth, agility, and value.

Our SMART framework is not just about saving money (though it helps with that, too). It's about creating a cloud environment that's efficient, secure, and perfectly tailored to your needs. Think of it as your cheat sheet to make your cloud work smarter, not harder. Ready to see how it works? Let's dive in.

S – Simple:

Cloud optimisation should simplify operations, not overwhelm them. That's why we focus on removing the guesswork. Tools like real-time dashboards and automated scaling ensure you're always in control, while proactive alerts keep surprises at bay. It's not just about streamlining workflows; it's about creating a cloud environment so intuitive that managing it feels second nature. And here's the game-changer: with our cloud management platform, you get complete visibility across your entire IT estate—whether it's on-premises, hybrid, or multicloud.

M – Measurable:

Optimisation isn't just about cutting costs—it's about tracking what really matters. Our approach empowers growth by delivering actionable insights tailored to your needs. Imagine a customised dashboard that reports on everything from VM usage to uptime and service quality levels. With a seamless, consolidated platform offering comprehensive visibility over day-to-day operations, continuous insights and BI-driven reports you'll know exactly where to allocate resources for maximum value.

A – Automated:

Let's face it—manual processes don't scale. Automation is the secret sauce that keeps your cloud efficient and predictable. By automating tasks like user and performance management, alerting, and resource allocation, we eliminate the tedious and leave room for the transformative. Our solution prevents cost overruns by automating spend control and delivering real-time visibility into cloud usage, enabling your team to make smarter financial decisions. With automation, you're not just keeping the lights on—you're building a cloud that works smarter, not harder.

R – Resilient:

Security and compliance aren't just boxes to check—they're the foundation of trust in your cloud. Our SecOps capabilities ensure your cloud is resilient to cyber threats and always compliant with the latest regulations. But resilience goes beyond safety. It's about maintaining governance at a granular level, assigning roles to manage access and protect your cloud infrastructure. With machine-learning-powered anomaly detection, we catch potential issues before they become problems. In short, your cloud is always ready for the unexpected.

T – Tailored:

Your business isn't one-size-fits-all, so why should your cloud strategy be? With our optimised approach, we design purpose-built cloud solutions that align with your specific workloads and goals. Whether it's optimising spend through continuous governance or dynamically onboarding new cloud inventory to complement existing investments, our platform adapts to your needs. Every element, from spend optimisation to custom dashboards for granular reporting, ensures your cloud doesn't just support your business—it accelerates it.

At the heart of our SMART approach lies Tata Communications's Triple Advantage—a synergy of Cloud Service Provider (CSP) and Managed Service Provider (MSP) benefits, our unique network integration, and extensive expertise across cloud, network, and security services. This combination goes beyond traditional MSP models, helping you harness cloud economics with a strategy that protects your current investments, optimises infrastructure, and drives cost efficiencies.

Let's transform your cloud together

At Tata Communications, we're more than a cloud partner—we're your guide to smarter cloud strategies. From assessment to optimisation, we make your cloud journey seamless and purpose-built for your business. Whether you're scaling apps, repatriating workloads, or seeking deeper insights, our SMART approach transforms your cloud into a growth engine. We don't believe in reinventing the cloud—we believe in helping you get more out of it. So, if cloud optimisation has been feeling like a marathon lately, SMART optimisation might just be the shortcut you need.

Source:

[1] <https://www.marketsandmarkets.com/Market-Reports/cloud-computing-market-234.html>

[2] Flexera 2024 State of the Cloud Report