

A Guide to
Controlling &
Optimizing
YOUR COSTS
IN THE CLOUD

Get a hold on **cloud costs**, before they get a hold on you

Enterprises are embracing the cloud because it helps them grow their business, serve their customers and get work done better and faster than ever before. But just like any metered service, there is a downside to the cloud that is rarely discussed: out-of-control costs resulting from poor orchestration and governance. Failing to address this problem risks throwing all the benefits of cloud out the window.

Fixing Cloud Cost Governance

This guide will show how out-of-control spending, lack of accountability and failures to adapt to a new financial model are threatening cloud-leveraged businesses everywhere. It will also show you how with the right approach and tools you can prevent these failures from happening in the first place.

Throughout this guide we provide resources, expert opinions and a self-assessment quiz to help you define your own path forward and ensure the cloud is a source of agility, innovation and simplicity for your business.

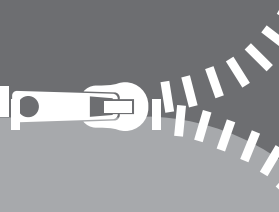
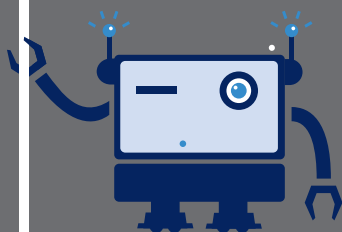
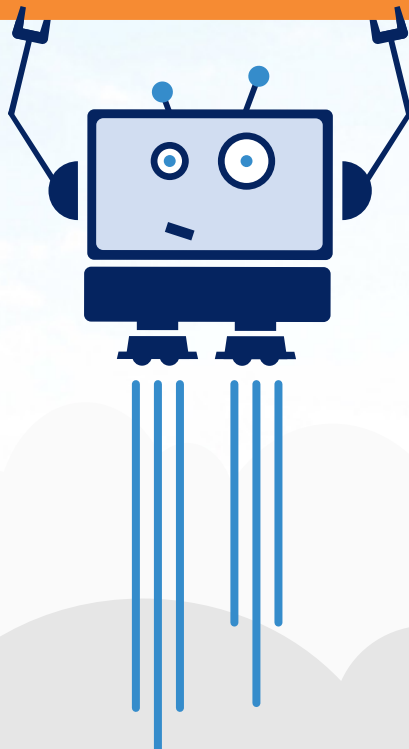


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Intro:

Getting a handle on cloud costs

Quantifying the challenges of cloud cost governance is not a fringe issue. Budgeting errors, procurement headaches and financial surprises are commonplace.

In a recent Softchoice study, we surveyed 250 of IT decision makers about their cloud strategies. The results revealed a wide-spread state of misunderstanding and unpreparedness in adapting to the way cloud costs work. A few of the core findings include:

OpEx Confusion:

45% of respondents do not understand the implications of a switch to operational expenses from a capital expense model

Lack of Accountability:

44% of IT leaders say they struggle to hold lines of business accountable for cloud costs

No way to track:

42% don't have the tools to effectively track cloud spending

Over-spend:

57% percent say they have exceeded their cloud budget

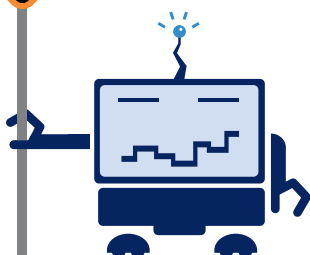


Download the State of Cloud Readiness Report

Paying 2x what you anticipated

In our experience, organizations that overspend on their budget for cloud don't just do so by a few dollars here and there. We often see usage patterns that are as much as twice what was initially expected.

Overages put IT leaders in a difficult position, harming credibility and undermining efforts to adopt the use of cloud in larger and more meaningful ways.



3 Root Factors that Drive Up Cloud Costs

In general, three main issues are at the center of cloud cost governance short-falls. They are:



Poor Budgeting: undertaking the necessary diligence before you purchase to determine how much you will spend

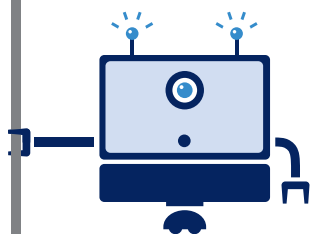


No Accountability: ensuring accountability across the lines of business and users who are responsible for cloud consumption and implementing the necessary tools to track usage



Under Optimization: reviewing performance against spend regularly and implementing formal policies to govern the introduction, consolidation or elimination of cloud computing resources

Note the “before, during and after” nature of these issues and the opportunity businesses have to improve things over-time. Once you get your cloud costs under control, you should be able to reduce those costs even further, and optimize spend in the long run.



Challenge 1: Budget

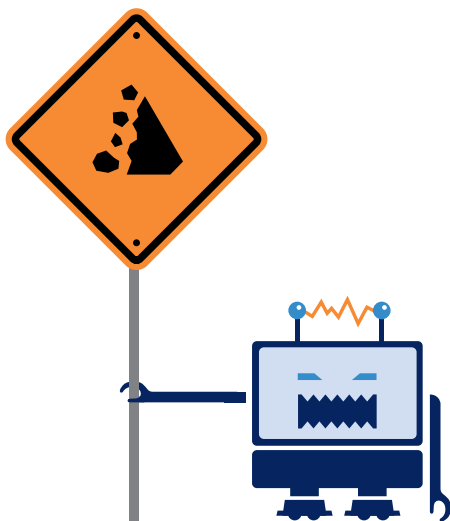
A move from budgeting for traditional on-premise infrastructure to budgeting for the cloud represents a significant departure in both process and mind-set.

FROM FIXED....

Traditionally, budgets are based on a long-term planning cycle, often forecasting expenses one to three years in advance. A traditional budget represents fixed, and therefore “sunk costs.” It’s not easy to pivot a strategy when you have a pile of expensive hardware sitting on the data center floor. The last but crucial distinguishing factor is that traditional IT budgets are controlled entirely by the IT department.

...TO FLUID

In a cloud environment, the budget is completely different. Unlike a capital expense, cloud is predicated on a less predictable, more variable operational expense (OpEX) model. This fluidity makes it easy to change strategies and dial up or dial down resources as needed. It also means your expenses are primarily driven by consumption. As such, forecasting usage becomes more crucial than ever. That’s a task that becomes all the more complicated as the budget itself moves out of IT’s hands and into the hands of the users, or lines of businesses consuming cloud services.

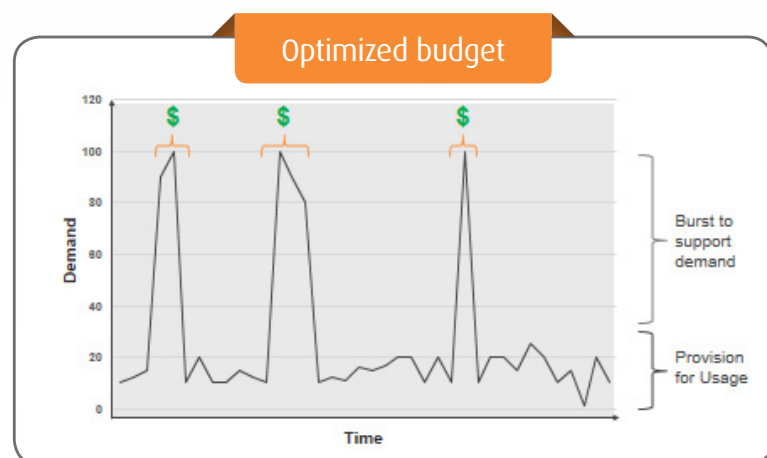
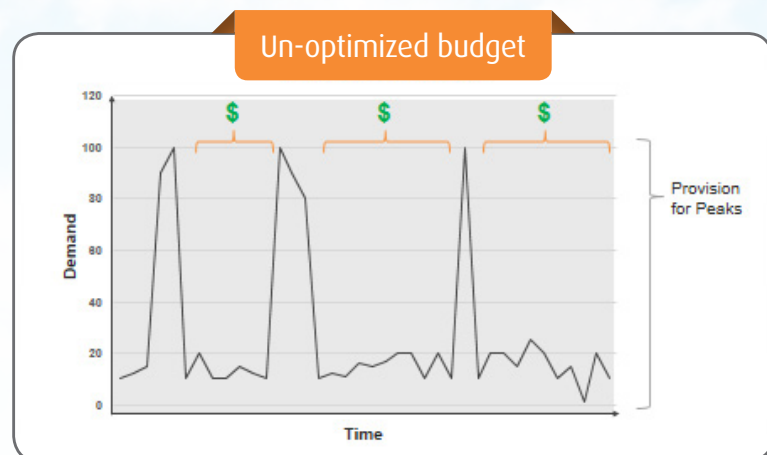


The Problem: Static Budgeting

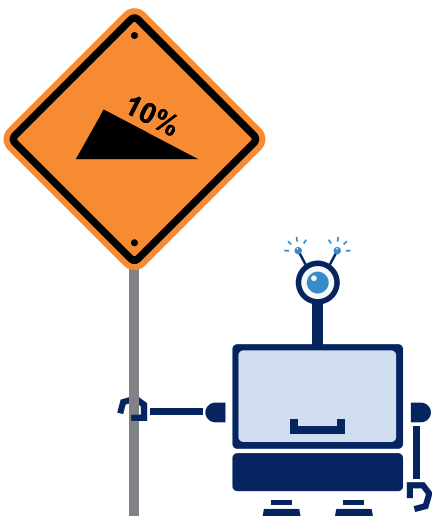
Organizations will fail to budget accurately for the cloud without a firm understanding of its dynamic, fluid requirements. Failing to set the proper limitations up front (a data cap) or holding line-of-business accountable for their consumption often results in unpleasant surprises when your monthly bill arrives. Contributing factors include:

Hidden Costs: 56% of enterprises say a lack of understanding of cloud operations drives hidden costs.¹

Paying for the Peaks (Always): Basing your budget on peak demand, and paying for those services, all the time, ends up wasting money.




1 . (Source: Where's The Rub: Cloud Computing's Hidden Costs, Jared Wray, Forbes, February 27, 2014)



Solution: Dynamic Budgeting

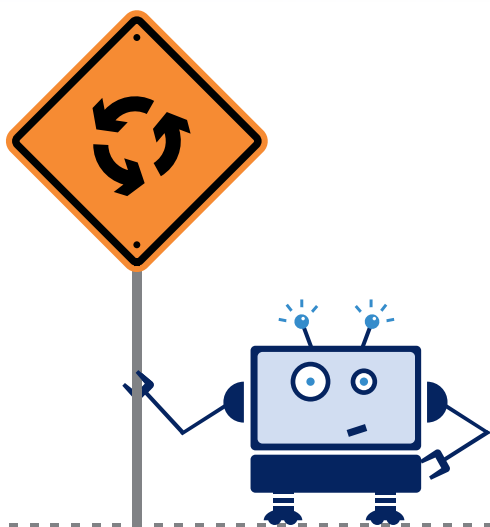
To avoid snowballing cloud expenses, we recommend the following:

- 1 Use Tools to Get Objective Insight into Applications:** The starting point for effective cloud cost governance is creating a realistic budget based on an objective understanding of your infrastructure, application and consumption needs. Use data-fueled tools to understand who your users are, how applications are used, consumption patterns, and so on.
- 2 Rainy Day Fund:** Mistakes are bound to happen, especially early on. We think it's essential you have a contingency fund for any surprises.
- 3 Plan for Performance, Not Peaks:** Orient your budget around lowest common denominator usage rather than peaks, which is how on-premise infrastructure is usually provisioned. Above average usage can still be accommodated in bursts, which is part of the beauty of the cloud. But it's never worth paying for any more usage than you need.
- 4 Automate:** Rely on automation where feasible to optimize cost as well as performance. Typical workload deployments are complex. Automating these processes increases not only deployment speed, but ensures they are executed in the most efficient way every time. And it takes chances of introducing human error out of the equation.

 [Download sample Budget](#)

“Unlike premised based solutions, with cloud there’s never a reason to overprovision. Cloud budgets should be sized to baseline usage so you don’t continually overpay for costly and infrequent peaks!”

– Aaron Brooks, Director of Datacenter and Cloud at Softchoice



Challenge 2: Accountability

Want to see the difference an Optimized Cloud Budget makes?

Download a sample budget to see how it saved one client over **\$20,000 a month!**

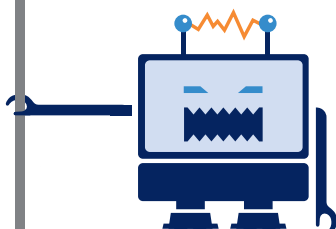
Easy, self-serve provisioning of new services is one of the most powerful features of cloud infrastructure. But the addition of each new workload has a direct impact on your budget. Without the right governance this is an area in which costs can quickly spiral up and out of control.

Un-optimized Budget

	Quantity	Monthly	Annual
Azure Instances			
Windows Servers	62	\$45,427.90	\$545,134.75
SQL Web	0	\$0.00	\$0.00
SQL Standard	3	\$892.80	\$10,713.60
SQL Ent	0	\$0.00	\$0.00
Linux Servers			
SLES Prem.	0	\$0.00	\$0.00
Storage			
Page Blobs (GB)	16818.51	\$325.99	\$3,911.89
Block Blobs (GB) - native	0.00	\$0.00	\$0.00
Block Blobs (GB) - backup	16818.51	\$1,345.48	\$16,145.77
Average Storage Transactions		\$99.63	\$1,195.61
Networking			
GB / Month	2268.15	\$197.33	\$2,367.95
Estimated Price		\$48,289.13	\$579,469.57

Cloud Optimized Budget

	Quantity	Monthly	Annual
Azure Instances			
Windows Servers	62	\$15,289.20	\$183,470.40
SQL Web	0	\$0.00	\$0.00
SQL Standard	3	\$892.80	\$10,713.60
SQL Ent	0	\$0.00	\$0.00
Linux Servers			
SLES Prem.	0	\$0.00	\$0.00
Storage			
Page Blobs (GB)	4889.86	\$325.99	\$3,911.89
Block Blobs (GB) - native	0.00	\$0.00	\$0.00
Block Blobs (GB) - backup	4889.86	\$391.19	\$4,694.27
Average Storage Transactions		\$99.63	\$1,195.61
Networking			
GB / Month	2268.15	\$197.33	\$2,367.95
Estimated Price		\$17,196.14	\$206,353.72



The Problem: **Questionable Accountability**

Setting expectations and ensuring accountability is the foundation of effective cost governance. Here are some of the most common issues we see affecting organizations.



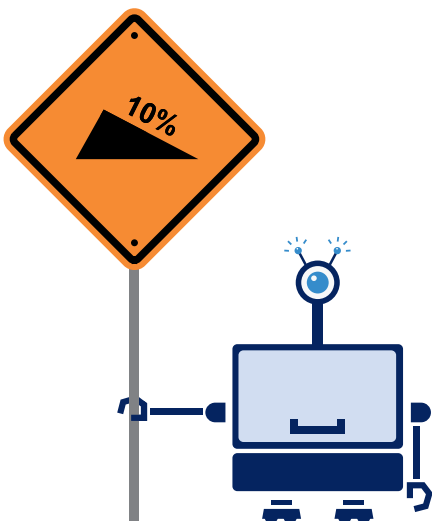
No set procedures or limitations as to who is permitted to stand up, deploy or retire workloads, leading to over provisioning (or so-called “compute sprawl”) and increased spending.



No insight into infrastructure currently in use by whom and no policy for decommissioning workloads that are no longer required



No formal agreement as to which department owns what and who pays the bills



The Solution: A Balancing Act

Want to foster your own Governance Workshop to address these goals?

Check out our Governance Workshop template.



[View Worksheet](#)

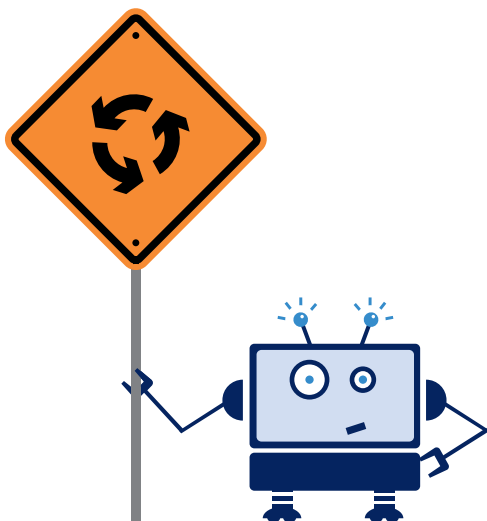
The only way to approach this problem is to ensure you have the proper controls in place, without compromising the agility of cloud or your people. You want just the right amount of oversight to prevent unruly consumption, while still giving your developers the freedom to spin up and employ workloads in a way that helps them and the organization get its work done, quickly and cost-effectively.

KEEPING CLOUD USERS ACCOUNTABLE

- 1 Business value:** Ensure the purpose and value of every applications is documented and understood.
- 2 Prioritization:** Ensure the criticality of applications are identified since this has an impact on the cost of resources required to deploy and support.
- 3 Team work & collaboration:** Get everyone together, including lines of business, finance and IT, to agree not only on the upfront value and criticality of your applications but also on the ownership, accountabilities and the division of costs.
- 4 Establish measurements:** Decide how you will measure costs – whether by project, individual or department.
- 5 Map out a process:** Design a procurement process that identifies those accountable, and provides clear measures to track performance and usage. This will ultimately ensure nothing is running without assigned ownership and oversight.

“Freeing your developers to provision computing resources faster is great. It’s one reason we love the cloud. But it has to be done correctly.”

– Craig McQueen, Director of Softchoice’s Microsoft Practice

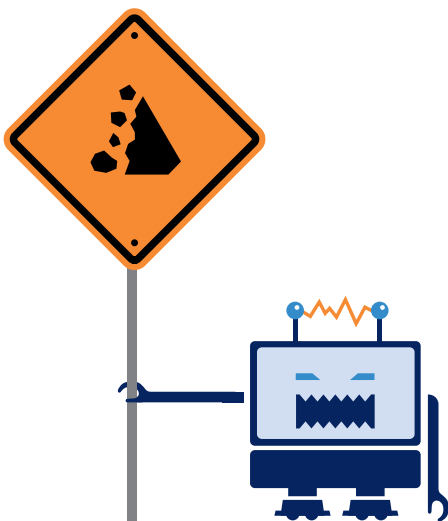


Challenge 3: Optimization

Overtime, the cloud gives you the ability to monitor performance and to use this information to pivot investments as you see fit. This leads to better value in the long run, and plenty of incremental improvements along the way.

The Problem: Not enough Insight, or context

The challenge for many businesses starts with a lack of tools to effectively monitor and therefore improve cloud performance. Most off-the-self tools from cloud providers provide limited information, but there are newer, better tools available that allow administrators to dive deeper into workload level usage. That said, to have maximum business value, performance and usage data need to be understood in context with business goals and priorities. When it comes to insight-driven activities it's not just the level of detail but the context that will drive meaningful performance and cost optimization actions.

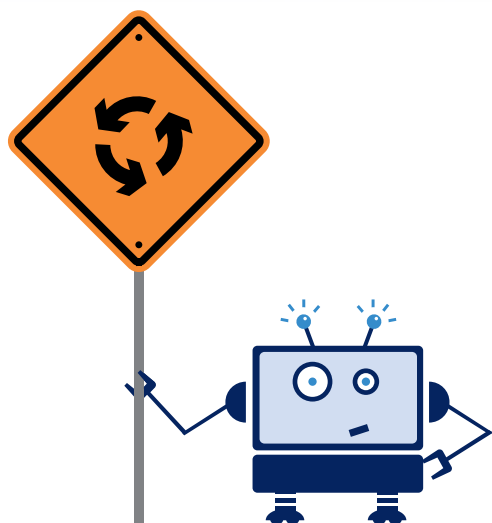


The Solution:

Measure, Cut, Repeat

The obvious solution is to implement tools and processes to uncover actionable insights. But it doesn't stop there:

- 1 Tool up:** You need the right tools to gain a deeper, more granular level of insight, letting you understand consumption by project, by department, or by cost of customer acquisition. Softchoice provides a unique, powerful Cloud Dashboard designed for this purpose, helping you connect cloud costs to business value.
- 2 Set up:** The first stage emerges from your budgeting work, as well as the accountability workshop described previously. Here you develop your forecast based on insights from application usage, dependencies and service level agreements. Developing and documenting policies around access is also important. For instance, it's best to design user access policies based on providing the minimum access an individual needs to do their job (called the "least privilege" approach). This helps limit your exposure to risk.
- 3 React:** Over time, assumptions are proven right or wrong. You must measure usage as well as performance to ensure you are using budgeted resources efficiently. Cut the fat at every opportunity.
- 4 Consult:** It is sometimes useful to gain a third-party opinion for interpreting and determining what actions should be taken based on what is reported. A support and mentorship service such as Softchoice's Keystone Managed Services can help.



“If you aren’t optimizing your spend over time, you are missing out on one of the best things about the cloud: flexibility.”

– Brett Gillett, Pre-Sales Architect for Softchoice’s Hybrid Practice

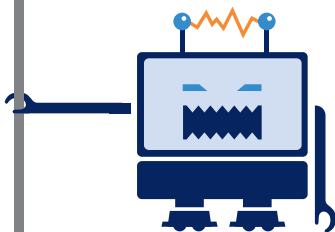
A Single View to Power Your Cloud

One approach to the optimization challenge is to aggregate your cloud data in a simple, easy to understand dashboard. One such solution is the Softchoice Cloud Dashboard, which helps make optimization, accounting and management of cloud services simple.

THE SOFTCHOICE CLOUD DASHBOARD OFFERS:

- 1 A single view for all your cloud environments
- 2 Ability to monitor usage by line of business, project or user
- 3 Consolidated, customizable reports, tailored to your goals

 [LEARN MORE ABOUT THE CLOUD DASHBOARD](#)



Self-Assessment: How Ready Are You for Cloud Costs?

Are you a cowboy, ready to tackle the cloud with everything you got? Or are you more hesitant about exploring your off premise priorities?


Knowing your level of cloud readiness helps define the strategies you need to focus on right away to improve your cloud financial management. To help you get started, we have prepared a brief self-assessment.

CHECKLIST:

STEP ① Take self assessment

STEP ② Determine your readiness profile

STEP ③ Explore Softchoice's recommended solutions for your needs

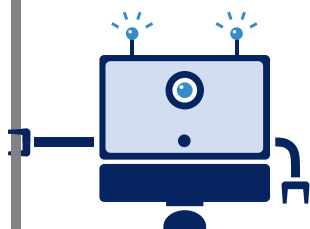


Public Cloud Financial Governance Workbook and Self-Assessment

Rate Yourself – Extent of Public Cloud Adoption

Question	1	2	3	4	5	Score
1. Where are you at in terms of discussing your cloud strategy?	We have not discussed what our cloud strategy looks like or have any ideas about how to get started.	We have talked about cloud, and have tested some options, but with real no end goal in mind.	We have already decided on where we want to be with cloud adoption in the next 1 to 3 years with specific budgets and milestones.			
2. How well does your organization know all of its applications?	We have no real catalog of applications, who uses them or the associated Service Level Agreements (SLAs).	We know our applications and who uses them, but we have limited documentation on their requirements, dependencies and SLAs.	We have a complete catalog of our applications, dependencies and SLAs for each.			
3. Does your organization consider public cloud when deploying new applications?	Public cloud is currently not considered for new applications.	Public cloud is considered for simple, new applications.	We have a 'cloud first' strategy and always deploy new applications to the cloud unless there is a strong case not to.			
4. How confident are you that your organization can safely build and migrate to a secure public cloud environment?	We don't understand the differences, challenges and pitfalls of architecting in the cloud well enough to do this alone.	We have played with public cloud and we have set up an environment for some of our applications, but are not sure if we're applying best practices.	We have setup our cloud environment to support our cloud strategy and feel confident in our architecture.			
5. How confident are you in your IT staff's ability to support your journey to the cloud?	We do not have the skills or systems to support the cloud and do not understand the differences between cloud and what we do today.	We have monitoring tools and practices in place to support our current infrastructure but we are not sure if it applies to the cloud.	We have strong skills, good support process and advanced systems to help us manage in the cloud.			

[Download Self Assessment Worksheet](#)



Quiz Results:

Now that you've defined your readiness profile, take a moment to explore the Softchoice services and solutions designed specifically for your needs.

HESITANT

- ▶ [Cloud TechCheck](#)
- ▶ [Workload Analyzer](#)



CAUTIOUS

- ▶ [Jumpstart](#)
- ▶ [vendor funded initiative](#)



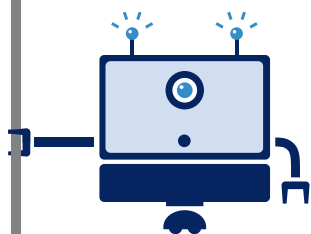
COWBOY

- ▶ [Governance Workshop](#)
- ▶ [Customized Consulting](#)



LEADER

- ▶ [Keystone Managed Services](#)
- ▶ [Softchoice Cloud Dashboard](#)



Key Take-Aways

As we've discussed in this guide, the key issues contributing to poor cloud cost governance are: Budgeting for static environments, when the cloud is dynamic; lack of accountability across lines of business and individual users who may be ultimately responsible for driving cloud costs; and a failure to optimize, due to lack of insight and the proper tools to measure performance

Thankfully, there are a number of powerful approaches to address each challenge. There is no time like the present to begin taking control of your cloud costs:

1

FLUID AND ACCURATE CLOUD BUDGETING

- Get the tools to understand your application and consumption patterns before you start
- Keep a rainy day fund to account for inaccuracies - they will happen
- Plan for base-line performance needs over-time, not peaks
- Automate to prevent human-error when possible

2

AGILE, CROSS-COMPANY ACCOUNTABILITY

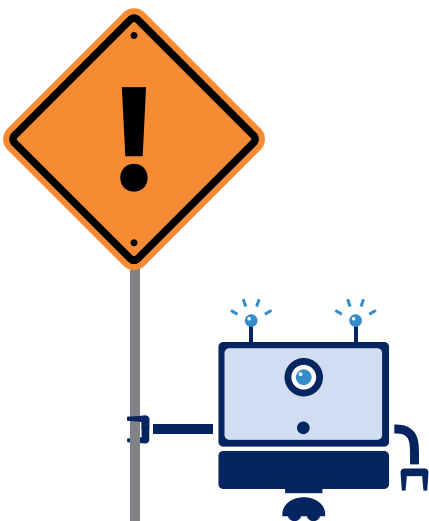
- Document, validate and map out your procurement and provisioning processes upfront
- Collaborate across departments to determine ownership, division of costs and accountabilities
- Remember to give developers enough freedom to stay agile

3

ONGOING, GRANULAR DATA-DRIVEN OPTIMIZATION

- Get the tools to get deeper insights on who is using what, in the context of larger business goals
- Experiment and react as your assumptions are proven right or wrong over-time
- Leverage a third party to consult on what your data is telling you and how to proceed

Leveraging the cloud can be a costly challenge, or a platform to improve your business, empower your workers and drive value. The difference comes down to how you approach the challenges discussed above.



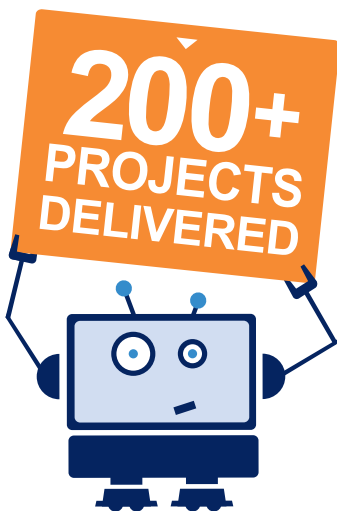
softchoice About Us

Softchoice is a leading North American services and solutions provider, offering managed services, IT solutions and architecture excellence in all areas of the data center. With a deep bench of Microsoft technical experts, we are the leading Enterprise Agreement reseller in the United States and Canada, and we offer a series of non-biased data-driven assessments that help our clients chart the best path for their business needs.

Softchoice is also a leader among technology solutions partners for providing insight, and hands on experience in the planning, licensing, delivery and maintenance of large-scale business cloud projects. From our SaaS management dashboards to our accelerator programs, we give you everything you need to be successful in the cloud.

Other guides in this series:

- ▶ The Essential Guide to Azure Security
- ▶ The Essential Executive Starter Guide to Microsoft Azure
- ▶ The Essential Guide to Licensing and Consuming Azure



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