



# Cost Governance in a Multicloud World





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As enterprises have looked to scale their IT operations in pursuit of new business opportunities, hybrid and multicloud environments have become much more popular. In a 2018 Softchoice survey, we found that more than 60% of enterprises were using a mix of public and private clouds—a clear indicator of the perceived benefits of combining multiple platforms for better operational agility and scalability.

Their top cited goals for moving more workloads into the cloud were achieving higher performance, improved agility, and greater cost savings. From public clouds such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP) to custom private cloud deployments, there is now a wide range of viable options for pursuing these objectives.

The main question is no longer “Which cloud should I choose?” but rather “How do I get the most mileage, with the best cost controls, from all the different clouds I’ve chosen?”

Navigating the new multicloud normal can seem daunting at first, largely because of the added complexity of managing multiple services. Most of all, multicloud IT raises the stakes for effective cloud cost governance. More than half of IT managers have exceeded their budgets at some point.

Similarly, one recent industry estimate of total cloud waste from idling, oversized, and non-production environments projected the annual cost at \$14.1 billion in 2019.

The good news is that governance doesn’t have to be a chore. In this guide, we will show you how to combine the right tools and methodologies to control your cloud costs without sacrificing your organizational agility. Also included in this paper are some opinions from cloud experts and links to various resources to help you evaluate your current situation and ensure that your cloud environments remain a reliable source of competitive advantage.

# Introduction:

## Overcoming Challenges to Effective Cloud Cost Governance

Deploying multiple cloud services increases complexity. On the one hand, this can be a positive change because it provides superior flexibility and versatility. Each of the major public cloud platforms has its own distinctive advantages, meaning it's often beneficial to combine them:

- AWS was the first major public cloud service and it continues to be on the cutting-edge, with innovative services for compute, storage, and networking.
- Azure is the best infrastructure for supporting business-critical applications such as Exchange and Office 365.
- GCP is perfect for applications harnessing the power of its artificial intelligence engine and machine learning capabilities.

On the other hand, the added complexity creates new hurdles. Maximizing the value of any multicloud or hybrid cloud environment featuring the above services and/or others will require overcoming these obstacles, which frequently include but are not limited to:

### Difficulties Tracking Cloud Consumption and Spend

**43% of Softchoice survey respondents were unsure about how to formulate an effective cloud management strategy for accurately monitoring and controlling their cloud usage.** Unpredictable budgetary costs, lack of transparency, and poor visibility are central concerns within complicated multicloud environments, and they require precise oversight.

### Overspending and Budgetary Issues

Despite cost savings being a prime motivator of cloud migrations, numerous deployments exceed their budgets and many more will do so as multicloud

complexity becomes the norm. **We found that one-third of all IT leaders exceeding their cloud budgets in 2018 did so by more than 20%.** That underscores how unmonitored costs can quickly escalate in the absence of strong controls.

### CapEx-to-OpEx Confusion and Other Misunderstandings

Almost half of the IT leaders we talked to were struggling to model their costs for OpEx environments in the cloud. As multicloud continues to gain traction, this task can become more difficult, due to the need to deal with data security and ownership issues, establish accountability for workload deployments, and stay on top of zombie instances.

### Shadow IT and Accountability

Multicloud means more clouds in day-to-day use, which raises the odds of unauthorized workloads and the damaging overages that come with them. Indeed, **more than 40% of IT decision-makers have problems holding line-of-business units accountable for cloud expenses.** Governance is the only way to keep such costly "shadow IT" in check.

Although all of these challenges can hinder cloud adoption, they have a clear solution in the form of cloud cost governance. By understanding where governance can go wrong and what it can accomplish when properly implemented, you can control your cloud costs without them controlling you.

# The 3 Big Factors That Drive Up Cloud Costs

Let's hone in even more closely on what must be addressed during governance. In our experience, three overarching issues complicate traditional efforts in cloud cost governance:



## Poor Budgeting:

Prior to any purchase, adequate due diligence must be performed to determine how much you will likely spend.



## No Accountability:

Who has the privileges to start a new workload? How is usage being tracked? A sustainable multicloud strategy must have clear answers to such questions.



## Under-Optimization:

It's crucial to regularly review performance against cloud spend and decide if policies should be adjusted to optimize the full lifecycle of cloud resources.

Note the "before, during and after" nature of these three issues, and the multiple opportunities available to put your cloud deployments on firmer footing. In other words, once you get your costs under control via a well-designed budget, you should be able to reduce those costs even further through accountability measures, and then optimize spend over the long term.

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# Challenge 1: Budgeting

The move from budgeting for traditional on-premises infrastructure to planning for the cloud represents a major shift, both in general mindset and in the particular processes needed to make it work.

## From Fixed...

A traditional budget is based on a long-term planning cycle that forecasts IT expenses up to three years in advance. It represents fixed costs, which will be paid regardless of actual usage. Moreover, it's completely controlled by the IT department, with no real input from other units. The overall rigidity of conventional IT budgeting will complicate any attempted pivot company strategy, since costs are forecasted on yearly timelines and decision-makers must account for the sunk costs of expensive assets such as data center hardware.

## ...To Fluid

For hybrid and multicloud setups, budgeting is a completely different animal. Instead of fixed CapEx, these environments slot into the variable OpEx model. The fluidity of OpEx, under which you only pay for what you actually consume, allows for the quick and easy dialing up or down of resources, corresponding to changes in strategy. It also makes accurate forecasting vital, so that you aren't surprised by sudden spikes in utilization. That task is complicated by IT's loss of exclusive control of the budget, as end-users and line-of-business teams now drive usage.

## The Problem: Static Budgeting

Static, unoptimized budgets need a complete makeover for the cloud. They should reflect the dynamic and fluid characteristics of cloud consumption and costs. Organization-wide accountability along with particular measures such as data caps can pave the way toward truly optimized budgeting and fewer (or no) monthly bill surprises.

**Some of the most common problems with today's budgets include:**



### Hidden Costs:

Moving to the cloud can come with uncertainty and lack of insight into the full range of costs. Everything from the use of containers to the modernization of software in preparation for a migration can increase what you pay.



### Always Paying for the Peaks:

Peak utilization, whether driven by rising demand or misuse, can be 100x or more your baseline usage. Basing your budget on that number and paying for the associated services, all the time, is unsustainable.

# Solution: Dynamic Budgeting

To avoid snowballing cloud expenses, we recommend the following steps:

## 1. Use Tools to Get Objective Insight into Applications

A realistic budget is the starting point for effective cloud cost governance. Such a budget will show deep understanding of your IT infrastructure, applications and consumption patterns. Take advantage of data analytics and tools to understand who your users are, which apps they use, and how consumption might change.

## 2. Set Up a Rainy Day Fund

It's always possible something could go temporarily wrong with your multicloud deployment, especially in its early stages. A contingency fund will help you weather any surprises.

## 3. Plan for Performance, Not Peaks

Orient your budget around lowest common denominator usage rather than peaks. Above-average usage can still be accommodated in bursts, which is a key advantage of the cloud – you never have to pay for more than what you need at a given moment.

## 4. Automate, Automate, Automate

Leverage automation when possible for more predictable performance and lower costs. Typical workload deployments are complex, and even more so in multicloud environments. Automating them not only boosts deployment speed, but also ensures they're executed as efficiently and reliably as possible. Finally, it lessens the chance of human error – a leading cause of cloud failures.



***“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, Senior Director of Strategy at Softchoice*

### Un-Optimized Budget

	Quantity	Monthly	Annual
<b>Azure Instances</b>			
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	0	\$0.00	\$0.00
SLES Prem.	0	\$0.00	\$0.00
<b>Storage</b>			
Page Blobs(GB)	16818.51	\$325.99	\$3,911.89
Page Blobs(GB)-Native	0.00	\$0.00	\$0.00
Page Blobs(GB)-Backup	16818.51	\$1,345.48	\$16,145.77
Average Storage Transactions		\$99.63	\$1,195.61
<b>Networking</b>			
GB/Month	2268.15	\$197.33	\$2367.95
<b>Estimated Price</b>		<b>\$48,289.13</b>	<b>\$579,469.57</b>

### Cloud Optimized Budget

	Quantity	Monthly	Annual
<b>Azure Instances</b>			
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	0	\$0.00	\$0.00
SLES Prem.	0	\$0.00	\$0.00
<b>Storage</b>			
Page Blobs(GB)	4889.86	\$325.99	\$3,911.89
Page Blobs(GB)-Native	0.00	\$0.00	\$0.00
Page Blobs(GB)-Backup	4889.86	\$391.19	\$4,694.27
Average Storage Transactions		\$99.63	\$1,195.61
<b>Networking</b>			
GB/Month	2268.15	\$197.33	\$2367.95
<b>Estimated Price</b>		<b>\$17,196.14</b>	<b>\$206,353.72</b>

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## Challenge 2: Accountability

Easy self-serve provisioning of services is a core value proposition of cloud computing. At the same time, each self-service operation impacts your bottom line. Your governance strategy must properly account for and control these requests to keep your budget sustainable.

### The Problem: Questionable Accountability

Accountability and expectation-setting are the foundations of effective cost governance in the cloud. Implemented the right way, they directly address common issues such as:

- Not having any set procedures or limitations pertaining to who is permitted to stand up, deploy, or retire workloads, leading to over provisioning and higher spending.
- Lacking full insight into current infrastructure consumption (broken down by user) while not enforcing any policy for the decommission of unneeded workloads.
- Being without a formal agreement on which department owns what and who pays the bills for cloud consumption.



# Solution: A Balancing Act

The best way to improve accountability across a hybrid or multicloud environments is by instituting the proper controls, all without compromising the agility of your cloud services or the people who use them. You want to strike a balance between oversight of consumption and real freedom for developers and others to spin up and manage workloads in accordance with current business requirements.

## Blueprint for Keeping Cloud Users Accountable



### Focus on business value:

Make sure the purpose and value of every application is documented and understood.



### Prioritize applications:

Identify the importance of your applications so that resources and funds are deployed where they're most needed.



### Encourage teamwork and collaboration:

Bring everyone together, including IT, line-of-business, and finance, to build consensus on application value and priority, plus the associated ownerships, accountabilities, and divisions of costs.



### Establish measurements:

Decide how you will measure costs, whether by project, individual or department.



### Map out a process:

Design a procurement process that identifies the accountable parties and provides clear measures for tracking performance and usage to prevent anything from 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.”***

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*Craig McQueen, Senior Director,  
Innovation at Softchoice*

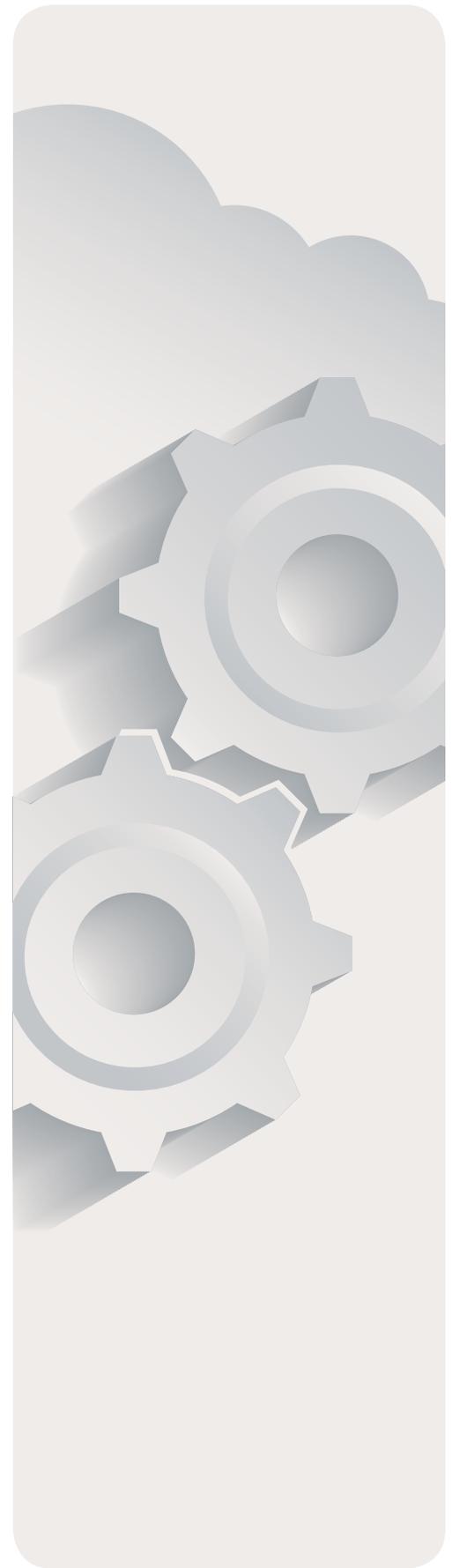
## Challenge 3: Optimization

Over time, cloud governance informs and enhances your ability to pivot investments as you see fit, based on insights about usage levels and costs. It results in better long-term value from your multicloud environment, with improvements in cost control and application performance along the way.

### The Problem: Insufficient Insight and Context

Do you have the right tools to monitor and in turn improve performance? Most off-the-shelf solutions from cloud service providers offer only limited information on this front. Fortunately, there is no shortage of newer and superior tools empowering administrators to dive deeper into workload-level usage.

Getting maximum value from these solutions requires placing their performance and usage data into the context of your business goals and priorities. When it comes to taking insight-driven actions, it's not just the level of detail but this crucial context that will spur meaningful changes in performance and cost optimization.



# Solution: Measure, Cut, Repeat

The practical solution is to implement tools and processes that help uncover actionable insights. Here's how to make that happen:

## 1. Tool-up:

You need the right software for more granular level of insight by project, department, and cost of customer acquisition. For this purpose, Softchoice provides the unique and powerful [Cloud Dashboard](#) to help you connect cloud costs to business value.

## 2. Set up:

Use these insights on application usage, dependencies and service-level agreements to develop accurate forecasts. Develop and document access policies along the way. For example, design a user-access policy based on providing the minimum access necessary for the job at hand, also known as the principle of least privilege. This helps limit your exposure to risk.

## 3. React:

Over time, your initial assumptions and calculations will turn out to be right or wrong. Reevaluate your setup by measuring usage and performance to see if they align with budgetary allocations. Cut the fat at every opportunity.

## 4. Consult:

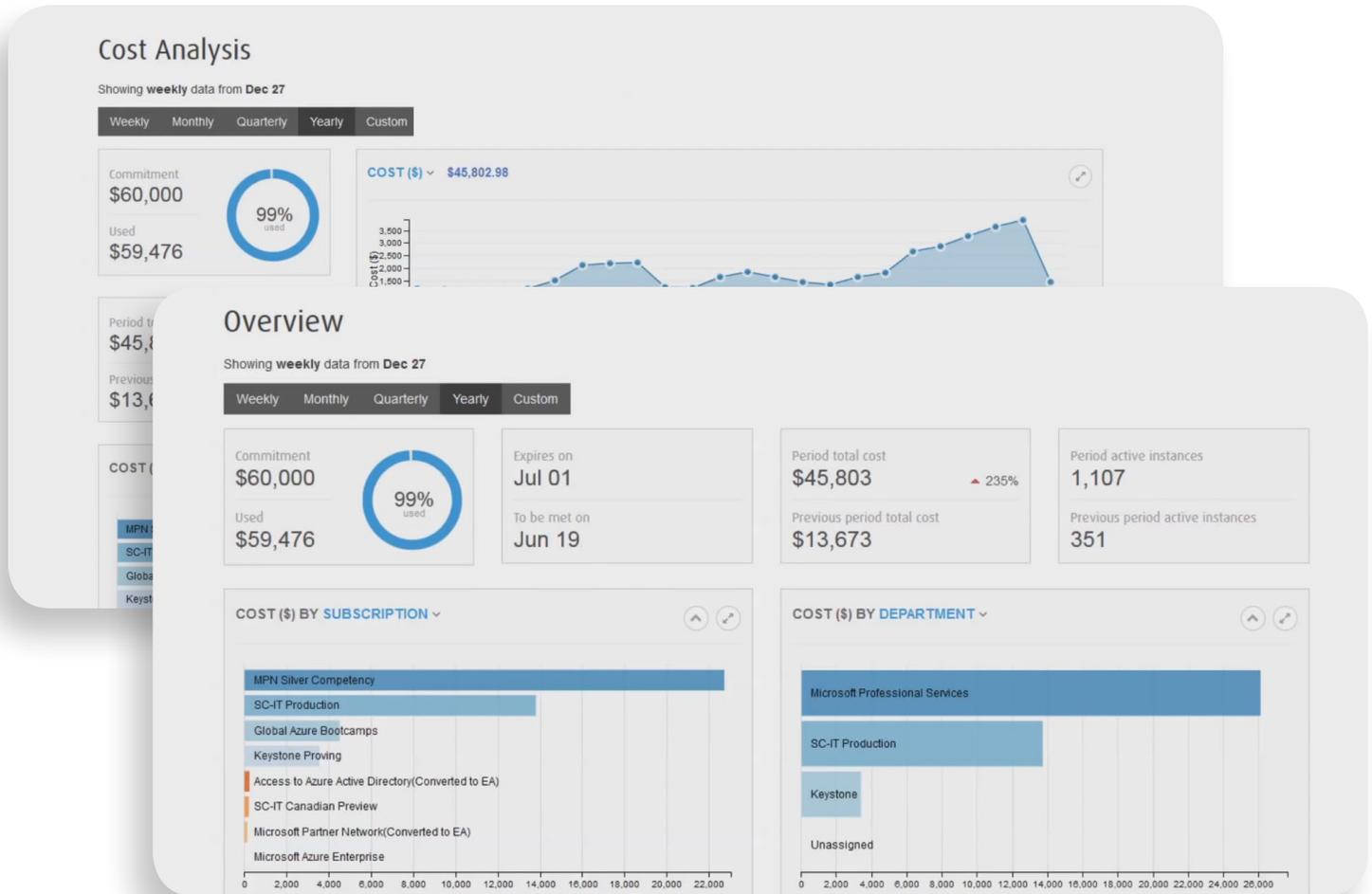
It's often useful to get a third-party perspective on what actions should be taken based on reports about your different cloud environments. A support and mentorship service such as [Softchoice's Keystone Managed Services](#) can help in these situations.

***“Design a user-access policy based on providing the minimum access necessary for the job at hand, also known as the principle of least privilege. This helps limit your exposure to risk.”***

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# A Single View to Power Your Cloud

Optimization is easier when you aggregate your data. You can put all the relevant details about your hybrid and multicloud environments into a simple, easy-to-understand dashboard with the Softchoice Cloud Dashboard.



## The Softchoice Cloud Dashboard Offers:

- A single view of all your cloud environments.
- The ability to monitor usage by line of business, project, or user.
- Consolidated, customizable reports tailored to your goals.

[Learn More About Cloud Dashboard](#)

# Key Takeaways and Conclusion

As we've discussed throughout this guide, the most common issues in cloud cost governance are:

- Budgeting for static environments, when the cloud is dynamic.
- Lacking accountability across the lines of business and individual users who contribute to cloud costs.
- Not optimizing due to lack of insights and the proper tools to measure performance.

Thankfully, there are a number of proven solutions for overcoming each of these obstacles. You can start taking back control of your cloud costs right now through:



## Fluid and Accurate Cloud Budgeting

- Get the tools to understand your application and consumption patterns.
- Maintain a rainy day fund to mitigate risk.
- Baseline your performance on typical usage, not peaks
- Automate to prevent human error and trim various costs.



## Agile Cross-Company Accountability

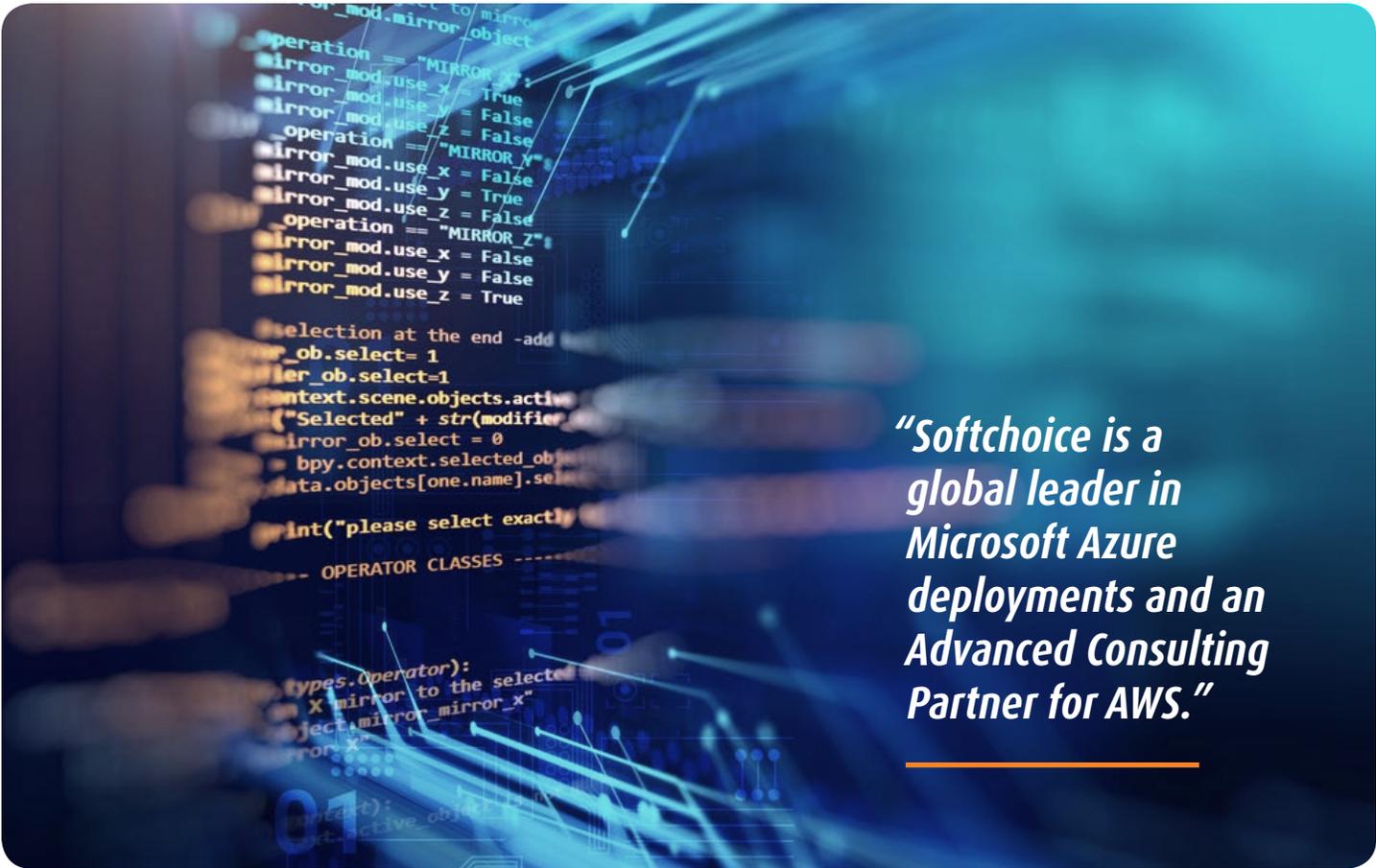
- Document, validate, and map-out your procurement and provisioning processes upfront.
- Collaborate across departments to determine ownership, divisions of costs, and accountabilities.
- Remember to give developers enough freedom to stay agile.



## Ongoing, Granular, and Data-Driven Optimization

- Gain 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.
- Leverage a third party for advice on what your data is telling you and how to proceed.

**Multicloud environments should ultimately streamline your operations, empower your workers, and drive business value. Ensuring that they deliver on this promise comes down to how well you plan for the common challenges along the way and what steps you take to overcome them.**



*“Softchoice is a global leader in Microsoft Azure deployments and an Advanced Consulting Partner for AWS.”*

## About Us

Softchoice is a leading North American provider of managed services, IT solutions and architecture excellence across all areas of the data center. In addition, Softchoice is a global leader in Microsoft Azure deployments and an Advanced Consulting Partner for AWS. The cloud expert team has successfully completed 500+ cloud migrations on behalf of small, mid-market and enterprise organizations.

Softchoice is also a leader among technology solutions partners in providing insights 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.

### Sources

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