

accenture

**BECOMING A CLOUD
MANAGEMENT LEADER:**

**TIME TO
"RUN DIFFERENT"**



Despite the potential of the cloud, it also creates new challenges for IT organizations.

Managing a cloud environment is complex. It's a much more fluid and dynamic environment. It puts tremendous pressure on enterprise networks from both a bandwidth and security point of view. It also requires a whole new set of capabilities to manage cloud consumption.

IT procurement teams, which are accustomed to buying cycles of three to five years, may struggle to keep pace with developments in the cloud market, where new platform services are launched on an almost-weekly basis. Without changing the way enterprises operate, they may be unable to leverage the new, innovation-centric cloud services that can fuel disruptive change. IT organizations must evolve how they manage and support their business in a cloud-based landscape.

If companies want to maximize the innovation potential of the cloud, they must rethink how they support and run their cloud estates.

To address these challenges, IT organizations need to rethink their operations. They need to “run different”—shifting from traditional operations to an agile and cloud-based operating model that supports multi-speed delivery across legacy IT and multi-cloud landscapes. Our view is that the new age of the cloud demands a new approach to cloud management and optimization. If companies want to maximize the innovation potential of the cloud, they must rethink how they support and run their cloud estates.

FIVE KEY AREAS OF EFFECTIVE CLOUD MANAGEMENT

When running in the cloud, companies need to change the way they procure, manage and optimize their cloud services. We believe they should organize their management thinking across five key areas (see Figure 1):

Figure 1: Five key areas for more effective cloud management

Enabling cloud-hosted and cloud-native application management



Cloud Managed Services

Ongoing Cloud Operations

- Management and operations
- Cloud operating model
- Cloud skills management



Cloud Optimization Services

Continuous Optimization and Evolution

- Optimize size, waste, scheduling
- Leverage innovation and platform services
- Evolve your estate with the cloud market



Cloud Consumption Services

Cloud consumption, Terms and Pricing

- Eliminate CapEx investments
- Streamline billing management
- Cloud provider procurement and management



Cloud Security Management

Security in the Cloud

- Adhere to compliance and regulatory controls
- Leverage cloud-native security capabilities
- Augment native security controls



Cloud Management Platform

Legacy-to-Cloud Control Plane

- Provision and govern across cloud providers
- Accelerated deployments through blueprint templates
- Leverage automation to ensure governance and ongoing savings



1. CLOUD MANAGED SERVICES

Cloud managed services are required to maintain the health of the applications and end-user services that leverage the cloud, and to support changes within that environment on an ongoing basis.

One of the key success factors of cloud managed services is a cloud operating model. This operating model must be able to handle the challenges of the new world of cloud and provide agility, ease of use, unencumbered scalability and full independence of how the infrastructure is used. It must also simultaneously handle more traditional applications that want control of the estate, predictability of performance, and stability of the environment.

Most large enterprises have complex application portfolios with hundreds or thousands of applications.

So, even as they move more of their applications to Agile and cloud-native development, they will still have many legacy applications to support. In fact, as digital decoupling and microservices gain traction, many applications will have components that live in both worlds. For this reason, the cloud operating model must simultaneously support multi-cloud and legacy environments while enabling multi-speed delivery.



2. CLOUD OPTIMIZATION SERVICES

Despite the power and flexibility of a multi-cloud environment, one of the key challenges is optimizing how applications and data use the cloud, both from a performance and cost perspective.

For this reason, cloud optimization services become critical to maximizing application performance while minimizing potentially runaway costs. We find that many enterprises use the cloud inappropriately, buy the cloud incorrectly, or both. Less than 75 percent of cloud services are covered by tools, so a major gap exists between the innovation released from the public cloud providers and the ability to measure, monitor and manage it (let alone optimize it). Without the right modeling tools, methodologies to optimize, and knowledge of the latest innovations, IT organizations risk spending more than is necessary across their existing cloud estate.

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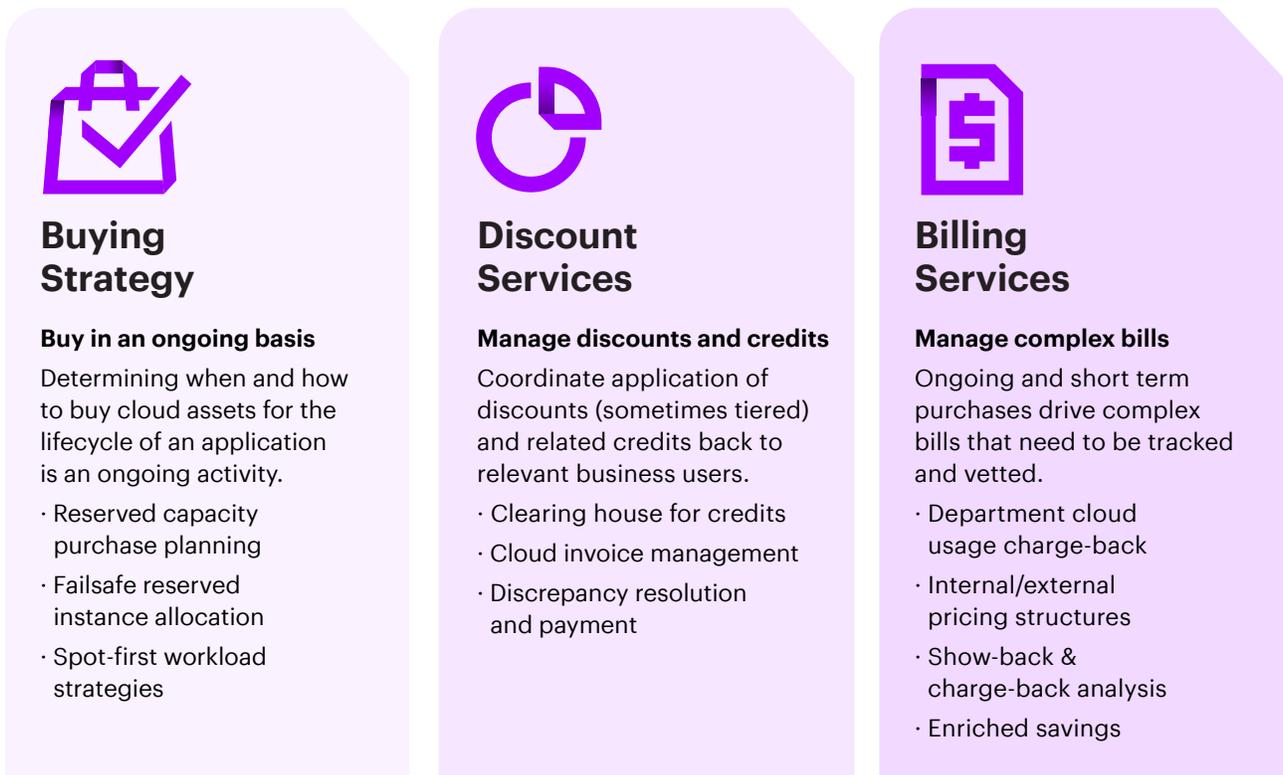
3. CLOUD CONSUMPTION SERVICES

Every month, companies receive a bill from their public cloud provider(s) and, over time, this bill grows both in size and complexity.

In some cases, we have seen invoices reach hundreds of thousands of individual line items. Companies must be prepared to effectively manage and reconcile this complexity on a regular

basis to properly manage cloud spend and reduce unwanted cloud sprawl. They must manage their consumption of IT services much differently (see Figure 2).

Figure 2: Managing cloud consumption



A monthly bill of \$250,000 may have up to 85,000 individual line items, and a company's reconciliation processes must be able to map credits back to the correct budgets and projects.

IT organizations need to retain and evolve expertise as to “when,” “how” and “what” to buy from providers and understand the various complexities of the options that providers offer across IaaS, PaaS and enterprise support. Beyond understanding bills, consumers of cloud must reconcile discounts and credits, and track them on an ongoing basis. A monthly bill of \$250,000 may have up to 85,000 individual line items, and a company's reconciliation processes must be able to map credits back to the correct budgets and projects.

These capabilities become even more critical when an organization operates in a multi-cloud environment. It is exceedingly difficult for companies to keep abreast with the constant changes in pricing, service offerings and capabilities, and invoicing complexities across multiple cloud providers.

IT organizations can take advantage of commercial constructs that tie applicable portions of support costs to cloud provider utilization through percent-of-spend consumption models. Risk of incurring cost increases can be managed through gainshare models for ongoing optimization activities. In addition, IT should educate developers and application owners that the flexibility of the cloud requires constant inspection and awareness of cloud consumption to control costs. By creating awareness and accountability based on actual consumption, the business can take advantage of innovation while also helping IT control its cloud provider spend.



4. CLOUD SECURITY MANAGEMENT

Although *how* data is secured in the cloud is continually changing as cloud provider capabilities evolve, a core set of standard security functions need to be in place and managed in every cloud environment.

Deployment of advanced security services needs to be considered based on data classification and regulatory requirements. Opportunities to optimize the cost of providing these security services through cloud provider native capabilities should continually be evaluated. It is essential that the new operating model and managed cloud provider adhere to regulatory and compliance requirements and augment security controls with cloud-native capabilities.



5. CLOUD MANAGEMENT PLATFORM

To enable cloud management, optimization and consumption management, we advise organizations to no longer think in terms of “tools” that manage a set of given infrastructure but rather in terms of a “platform” that manages a hybrid set of cloud components (public, private and legacy). This platform should evolve over time as cloud innovation expands and delivers new opportunities to drive technology and business value.

A cloud management platform should deliver on three primary capabilities:

- It must operate across a complex, multi and hybrid cloud estate that includes legacy and private cloud environments, along with multiple public cloud providers. Having a single control plane across the entire estate is critical for auditing the journey to cloud and maximizing its effectiveness.
- For cloud optimization, the cloud management platform must deliver on usage data, cloud tagging, monitoring of new services, and predictive analytics, to name just a few functions. To support cloud spend management, the cloud management platform must provide billing analytics, cloud credit optimization, price simulation and market comparison data.
- The platform needs to evolve over time. As public cloud providers evolve and bring innovation to the market, a cloud management platform must be able to embed this innovation on an ongoing basis or, at minimum, not hinder or limit its use by developers.

PUTTING IT ALL TOGETHER

To continuously optimize the management of your cloud environment, look to focus on four sets of activities:

1. Standardize

One of the reasons that a public cloud implementation can deliver such a high level of automation is because of its focus on standardization. The standardization of the service catalog is needed to automate and industrialize services. Thus, it is important to bring this same level of standardization when building a private cloud. With a well-defined set of service options for compute, storage, and networking, companies can effectively automate and operate a private cloud to behave similarly to a public one.

2. Create an agile cloud operating model

Companies need to rethink and reinvent their operating model to address the challenges of Agile, cloud, and software-defined infrastructure. The operating model must be able to:

- Shift the focus and structure the organization around services.
- Address multi-speed delivery.
- Provide governance across the business, technology and operations organizations.

3. Transform and upskill the organization

Cloud and Agile both require a completely new set of skills that are not easy to find in the market. For example, operators of the future will no longer be “eyes on glass.” They will be developers writing the next data ingestion, analytics algorithms, visualizations and automations. It is critical to develop comprehensive programs to re-skill your workforce to operate in Agile and cloud.

4. Use hyper-automation platforms and tools

Platforms and tools are at the heart of cloud. To meet the growing demands of the business, an IT organization cannot scale simply by throwing people at the problem. That approach is too costly and difficult to execute and will not provide a path to agility and operational efficiency. Instead, companies should tap into the power of applied intelligence—using analytics, automation and artificial intelligence to improve and optimize how the company operates. A new cloud and Agile operating model, coupled with the increased use of tools and platforms for analytics, automation, and AI—collectively referred to as “AIOps”—is becoming core to how we drive agility, operational efficiencies, and cost savings as we rotate to “New IT.”

CONCLUSION: IMPROVING YOUR CLOUD BUSINESS CASE

Operating in the cloud typically means that a company will spend over two-thirds of its budget creating cloud solutions and roughly one-third managing them. This has been the case for legacy and private cloud estates. With advancements in automation and analytics, the cost of managing estates (and particularly those in the cloud) has significantly decreased.

Unfortunately, this decrease has mistakenly led companies to not question adequately enough how much they are spending in the cloud. In some cases, ignoring this factor causes companies to spend more in the cloud than they previously were in their legacy estates, with obvious negative repercussions for the overall business case.

By “running different”—combining cloud managed services, optimization capabilities and consumption management, all powered by AIOps—organizations can drive an improved business case across their infrastructure estate by reducing the cost of managing the environment and of the estate itself while unleashing the full business potential of cloud.

About Accenture

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