Lifting the Fog: **Controlling Public Cloud Costs and Reducing Spend**

Quali | Infrastructure Automation at Scale™

Executive Summary

*Enterprise organizations are increasingly embracing cloud computing to deploy environments for software development and release. While this provides agility and flexibility, it often leads to a **waste of large sums of money** on the consumption of unnecessary public cloud services and resources. IT and operations leaders are required to identify **out-of-control public cloud spending** and implement company-wide cost management and control strategies. In order to put such strategies in place and make the best of readily available cost optimization tools, IT and operations should have the ability to verify that all cloud expenses are accounted for and are linked to actual business needs. By demystifying the cloud provider monthly billing report, actionable information can be extracted to support ongoing cost optimization activities.*

Introduction

IT and Operations are expected to implement company-wide public cloud cost management and find ways to catch unruly spending and rein them in. Gartner estimates that, "organizations that have done little or no cloud cost optimization may be overspending by 70% or more. Without a formal action plan, organizations will increasingly waste money, sign inappropriate contracts and obtain substandard service." (Gartner, Your 90-Day Action Plan to Control Public Cloud Spend, Feb 2019)

There are major hurdles on the way to controlling and minimizing cloud expenses. In most organizations, cloud spend is generated by different teams that maintain several accounts through multiple public cloud providers. To get an aggregated view of the entire organization's cloud utilization, one would naturally turn to the cloud provider's billing and utilization reports, and then

attempt to extract actionable information to form cost management processes and policies. In reality, cloud provider billing reports contain a granular breakdown of regional infrastructure, instance types, networking services, and usage costs, forming long, cumbersome, and illegible lines of data.

Cloud spend should be identified as a problem only if they cannot be traced back to business needs, they outgrow the actual needs of the teams, or they exceed the budget.

3 Challenges to Lifting the Fog Off of Public Cloud Costs

Cloud sprawl and "shadow IT" cloud accounts

1

With the need to rapidly innovate and advance both internal and customer-facing applications, DevOps-focused organizations depend on multi-cloud resources from development all the way to production. Maintaining multiple cloud accounts through several cloud providers is a common practice in most organizations. Unfortunately, tracing all cloud accounts used across the entire organization is virtually impossible to audit and regulate, resulting in cloud sprawl and increased cloud spend. **IT and operations cannot guarantee that all cloud spend is accounted for, tracked, and controlled**.

To help **alleviate cloud sprawl** that drives up costs, businesses need to automate the way they spin-up and decommission cloud resources. By automating these functions, you not only reduce cloud expenses, but you provide your DevOps teams with access to self-service application and infrastructure environments on-demand.

Foggy cloud billing reports

2

Making sense of the cloud provider's billing report is a huge challenge. Linking between the billing report's long and granular cost lines to environments associated with the development and release activities is virtually impossible. Cloud providers aim to help organize the billing report by offering a tagging mechanism. Tagging cloud resources basically means adding custom metadata to cloud resources to categorize them and then filter and group the costs in the billing report by tag.

Tagging cloud resources can provide visibility into costs per environment, team, project, cost center, and specific user. However, applying effective, consistent, uniform tagging on all consumed cloud resources is a challenge in itself. It means that anyone deploying cloud resources, across all dev and test teams, must both tag every deployed resource and make sure to use the same exact tags as everyone else.

Lifting the fog of your billing reports while best utilizing the cloud provider's tagging mechanism means that when deploying a dev/test environment, every resource should be automatically tagged using a closed set of predefined tags. Meaning, **tagging should be automated and proper tag usage should be enforced**.

An overwhelming number of options for cost optimization and control

3

Maintaining cost optimization is a challenge as cloud providers offer multiple options for implementation with a wide variety of pricing schemes and discounts that change on a regular basis. Consulting cloud-service-expense-management (CSEM) tools to get recommendations for optimizing cloud spend across multiple public clouds can save large sums of money. But you must still put in place some basic control activities and make sure to regularly follow them. Such activities can be:

- Rightsizing your infrastructure instances
- **Automatically turning off unused resources**
- Switching to cheaper compute and storage options
- Employing blended purchasing of combined on-demand resources, reserved resources, and spot instances.

Controlling Cloud Costs with CloudShell Colony

CloudShell Colony is an Environment as a Service platform that connects to your cloud accounts like AWS, Azure, and Kubernetes—streamlining environment provisioning and deployment throughout your DevOps process.

CloudShell Colony helps you control cloud costs by:

Information in this document is accurate as of 12/2/2020. Information may have changed after this date.

- **Consolidating billing for all of your cloud resources**
- **Automatically tagging** every deployment resource
- **Automatically deploying and decommission** cloud-based environments
- Providing **role-based access control** to self-service environment catalogs
- **Connecting cloud costs to business needs**

About Quali:

Quali provides the leading platform for Infrastructure Automation at Scale. Global 2000 enterprises and innovators everywhere rely on Quali's award-winning CloudShell platform to create self-service, on-demand automation solutions that increase engineering productivity, cut cloud costs, and optimize infrastructure utilization.

quali.com
info@quali.com

Quali | Infrastructure Automation at Scale™

Information in this document is accurate as of 12/2/2020. Information may have changed after this date.

120220_v1