The Cloud Is Booming, But So Is Cloud Waste: 7 Effective Ways to Reduce Cloud Waste
Statistics suggests that around 94% of organizations use public Cloud services. Over $55 billion has been spent on global Cloud infrastructure in the first quarter of this year. Cloud services end-user expenses grow around 17%-20% every year, reaching $266.4 billion in 2020 to $494.4 billion in 2022. This hike is great because of a wider shift to public Cloud services but not to forget, there’s also an expansion of infrastructure in the existing accounts.

It is seen that around 2/3 of an average organization’s public Cloud bill goes to computing which is approximately $33.3 billion in this financial year so far spent entirely on computing resources. However, a lot of these Cloud bills have the vulnerability to end up in Cloud waste, making it a pressing matter.

However, non-production resources are only efficiently used for 40 hours in a work week and sitting idle for the other 128 hours. Therefore, 76% of this expenditure goes to waste.
The growth of Cloudwaste and its management

Today, Cloud users are more informed about the potential for wasteful spending than they were just a few years ago. With time and the growth of Cloud computing, the users mature as well and we are holding out hope for the future along with continuous efforts towards Cloud waste management. Idle and overprovisioned resources are the two spots that you should be looking at if you are trying to manage your Cloud waste expenditure.

VMs and instances that you pay for but don’t actually use regularly can add to your Cloud waste. These non-production resources are usually the ones used for development, staging, testing, and QA. Statistically speaking, around 45% of the compute spend goes to non-production resources.

Considering that about 40% of instances are taken one size larger than the required capacity, you’re paying a hefty sum for something you rarely or never use. This should be able to give you a gross picture of the underutilization of resources ready to be optimized. You can cut down your costs by 50% if you just reduce the size of your instances by one size. And if you can downsize, the cost goes down by about 75%.
Now, the question arises if you could stop this cycle and stop wasting your financial resources. Fortunately, the answer is yes! Cloud waste is preventable in most scenarios and the below rundown can help you stay on your toes in 2022 to effectively beat Cloud waste.

1. **Divide your steps for migration**

A common issue seen in companies trying to make the switch to the Cloud is that they plan to migrate their infrastructure, data, and workflows all at once. This might be a quick gateway to overwhelm the team. Depending on the size of your data, it might take somewhere between a few months to a few years to shift your entire database and infrastructure to the Cloud. It is always safe to evaluate as well as plan the shift starting with non-essentials and moving gradually towards the business-critical data.

2. **Automate your Cloud cost management**

Gone are the days of keeping elaborate records and spreadsheets to calculate dynamic Cloud bills. It is important to switch to automated tracking, detection, and reporting of abnormal Cloud activities.
3. Cloud cost analysis to save the day

Before you get to reduction or even calculation of your Cloud waste spending, you need an overall idea of how much of your expenses are dedicated to Cloud computing. Many enterprises are a little late to this calculation and this can result in about 35% of their Cloud budget going down the drain. As it might not be very apparent to see your budget leaking chunks of money every day, it’s better if you have a Cloud cost analysis performed.

There are a number of native cost tools to determine your resource consumption. However, to get an update on your granular cost insights you might need a Cloud cost intelligence approach. This can help link costs to key business activities, thus, helping you limit wastage.

4. Build your boundaries well

The Cloud can quickly go over your budget with its highly dynamic auto-scaling capabilities. Instances (EC2) do not stop the cycle on their own, it is up to you to stop them manually. Instances are billed every second irrespective of their use, scaling up limitlessly to handle server request influx.
You will have to set minimum, desired, and maximum capacity limits on the autos-scaling groups to reduce runaway surges.

5. Tagging Vs Cloud cost intelligence

Although tagging was first introduced to link expenses to Cloud activities, companies find it difficult to develop a perfect tagging strategy. Users prefer a solution that requires less work and is more accurate in putting costs in context.

Cloud cost intelligence can help you enrich, analyze, and report in customized ways to make the work smoother. The team should be able to make more aware financial decisions with such actionable information in place.

6. Cloud financial consciousness in the work culture

The work is not done until you start practicing Cloud financial management proactively. Start treating cost as a first-class metric, very similar to uptime, and MTTR (Mean Time to Recover). Insights like expenses on the support of a specific customer, cost per product feature, and cost per DevOps team can be empowering for the team to develop cost-efficient software
7. Implement best practices

Apart from the ways discussed above, you can always implement best practices to save some amount from your leaking Cloud budget.

- **Continuous Cloud reporting to improve usage visibility and Cloud cost optimization**
- **Cost monitoring to detect and fix issues before they become major**
- **Identifying the significant areas of wastage**
- **Automating policies to turn off workloads to prevent idle instances**
- **Analyzing Cloud bills for individual business activities**

Global enterprises are estimated to lose over $16 billion on overprovisioned resources and approximately $27 billion on idle Cloud assets. Other areas of vulnerability include orphaned volumes, inefficient containerization, etc. A big sum of approximately $5 million or more wasted every day, can be reallocated for other areas of business development. Perhaps, acknowledging how deep the problem runs can be the first step toward eliminating it.
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