How to prevent a bill shock or how to use Azure cost management in your day-to-day operations

As a managed service provider, you want to protect customers from unexpected peak Azure usage due to errors in configuration or fraudulent use of their Azure subscription. There are two ways to accomplish this - **Azure spending budget** and **Azure cost management**.

1) Set a monthly Azure spending budget in Partner Center

This is a simple measure to implement and will help your customers to budget their Azure spending, so their monthly bill is not higher than they anticipate. You can review customer usage and receive notifications of your customers' Azure spending against the budget.

This approach could also help to spot misconfigured services or unusual trends that might suggest malicious activity. Working with your customers will help to identify the root cause and to manage costs. If necessary, you can also increase the customer's budget. To learn more details, please see: Set an Azure spending budget for customers - Partner Center | Microsoft Docs.

2) Implement strict Azure cost management

With strict Azure cost management, you should be able to:

- Monitor cloud spend
- Drive organizational accountability
- Optimize cloud efficiency

In a continually changing cloud world, it is good practice to be highly cost-conscious, and visibility, accountability, and optimization are key.

With **visibility**, you focus on proper resource organization (management groups, resource groups and subscriptions), clear tagging strategy, proper access control (RBAC).

Accountability starts with a clear budget for adoption and/or clear view of potential cloud spend for given subscriptions. Accountability requires an iterative process and growth mindset to drive the right level of accountability.

Optimization is about actions to create cost reductions and finding the right balance between cost control and end-user performance expectations.

For a video overview of cost management and to see how it can help you save money in Azure, visit the Cost Management YouTube channel.

Six points to consider when reviewing cost management

1. What are the cost management concerns?

The following cost management features are provided in the Azure portal for managing Azure spend at no additional cost:

- Reporting
- Data enrichment
- Budgets
- Alerting
- Recommendations

Find out more details here: Pricing – Azure Cost Management | Microsoft Azure

2. Do you have a centralized way of tracking spending?

By using the Microsoft cloud, you can significantly improve the technical performance of your business workloads. It can also reduce your costs and the overhead required to manage organizational assets. However, the business opportunity creates a risk because of the potential for waste and inefficiencies that are introduced into your cloud deployments. **Cost Management + Billing is a suite of tools** provided by Microsoft that help you analyze, manage, and optimize the costs of your workloads. Using the suite helps ensure that your organization is taking advantage of the benefits provided by the cloud.

You can think of your Azure workloads like the lights in your home. When you leave to go out for the day, are you leaving the lights on? Could you use different bulbs that are more efficient to help reduce your monthly energy bill? Do you have more lights in one room than are needed? You can use Cost Management + Billing to apply a similar thought process to the workloads used by your organization.

For more information, please see Plan to manage Azure costs | Microsoft Docs

3. How do you monitor and manage cloud costs?

To control and optimize your Azure costs, you need to understand where costs originated within your organization. It is also useful to know how much money your services cost, and in support of which environments and systems. Visibility into the full spectrum of costs is critical to accurately understand organizational spending patterns. You can use spending patterns to enforce cost control mechanisms, like budgets.

The initial cost analysis view includes the following areas:

- Currently selected view: Represents the predefined cost analysis view configuration.
 Each view includes date range, granularity, group by, and filter settings. The default view shows accumulated costs for the current billing period, but you can change to other built-in views.
- Cost: Shows the total usage and purchase costs for the current month, as they are accrued and will show on your bill.
- Forecast: Shows the total forecasted costs for time period you choose.
- Budget (if selected): Shows the planned spending limit for the selected scope, if available.
- Accumulated granularity: Shows the total aggregate daily costs, from the beginning of the billing period. After you create a budget for your billing account or

- subscription, you can quickly see your spending trend against the budget. Hover over a date to view the accumulated cost for that day.
- Pivot (donut) charts: Provide dynamic pivots, breaking down the total cost by a common set of standard properties. They show the largest to smallest costs for the current month.

For more information, please see <u>Optimize your cloud investment with Cost Management - Azure Cost Management + Billing | Microsoft Docs</u>

4. What are the policies related to resource assignment and tagging?

Enforce tagging by policy. Tags are an effective way to understand costs that span across multiple teams and Azure scopes. For example, you might have a resource like an email server that many teams use. You can put a shared resource, like the email server, in a subscription that is dedicated to shared resources or put it in an existing subscription. If you put it in an existing subscription, the subscription owner might not want its cost accruing to their team every month. For this example, you can use a tag to identify the resource as being shared.

Similarly, you might also have web apps or environments, such as Test or Production, that use resources across multiple subscriptions owned by different teams. To better understand the full cost of the workloads, tag the resources that they use. When tags are applied properly, you can apply them as a filter in cost analysis to better understand trends.

After you plan for resource tagging, you can configure an Azure Policy definition to enforce tagging on resources. Watch the video <u>How to review tag policies with Cost Management</u>

5. Can your team dynamically size and scale assets for demand? How does that impact cost control?

Important is who or what is doing action in your Azure subscriptions. Azure Policy helps to enforce organizational standards and to assess compliance at-scale. Through its compliance dashboard, it provides an aggregated view to evaluate the overall state of the environment, with the ability to drill down to the per-resource, per-policy granularity. With Azure policy you can restrict use of certain resources to prevent accidental activation or misuse of resources. **See also** Overview of Azure Policy - Azure Policy | Microsoft Docs

6. Is there an ongoing process to address optimization?

Cost analysis allows you to analyze your organizational costs in-depth by slicing and dicing your costs using standard resource properties. Consider the following questions as a guide for your analysis. Answering these questions on a regular basis will help you stay more informed and enable more cost-conscious decisions.

- Estimated costs for the current month How much have I incurred so far this month? Will I stay under my budget?
- Investigate anomalies Do routine checks to make sure that costs stay within a reasonable range of normal usage. What are the trends? Are there any outliers?

- Invoice reconciliation Is my latest invoiced cost more than the previous month? How did spending habits change month-over-month?
- Internal chargeback Now that I know how much I am being charged, how should those charges be broken down for my organization?

For more information, see cost analysis.

Cost management resources

<u>Get started with Cost Management for partners - Azure Cost Management + Billing |</u>
Microsoft Docs

<u>Cost Management + Billing - Azure Cost Management + Billing documentation | Microsoft Docs</u>

<u>Monitor usage and spending with cost alerts in Cost Management - Azure Cost Management + Billing | Microsoft Docs</u>

https://azure.microsoft.com/en-us/resources/-the-total-economic-impact-of-microsoft-azure-cost-management-and-billing/

<u>Configure and manage costs as a Microsoft partner by using Azure Cost Management - Learn | Microsoft Docs</u>

<u>Control Azure spending and manage bills with Azure Cost Management and billing learning path - Learn | Microsoft Docs</u>