ProsperOps

Cloud Cost Optimization for Finance Professionals

Imagine reducing your AWS, Azure, or Google Cloud bills by 40%. How would that impact your COGS? ProsperOps automatically improves unit economics for BUs and products or services relying on the cloud.

How finance professionals can help reduce cloud costs

While engineering teams ensure they're using cloud resources wisely, finance professionals can help by minimizing the hourly rate at which they pay for those cloud resources. This is called rate optimization. Here's how it works and how it differs from the workload optimizations engineering teams often manage.

FINANCE

Rate Optimization
Paying the right amount

Rate optimizations are often accomplished through a combination of negotiated rates directly with the cloud provider and effective management of commitment-based discounts. These discount instruments can include:

- Reserved Instances (RIs)
- Savings Plans (SPs)
- Reservations
- Spot Instances
- Committed-use discounts

ENGINEERING/IT

Workload Optimization
Using the right amount

Workload optimizations are practices, policies, and tactics engineers employ to ensure cloud computing requirements for business-critical applications are met using only the necessary resources, minimizing waste. Examples include:

- Turning off virtual machines when not in use
- Moving data to lower-cost storage classes when not frequently accessed
- Rewriting an on-premises application to run natively in the cloud

What are commitment-based discounts?

Each of the major public cloud providers, AWS, Azure, and Google Cloud, provide customers the ability to commit either to a specific set of computing resources or to a certain dollar amount of spend for a predetermined time period in exchange for a lower hourly rate for eligible resources. This is separate from Private Pricing Agreements and often accretive to an organization's ability to save on their cloud usage. Term lengths are typically one year or three years and discount percentages vary based on the term length. Managing a portfolio of commitments requires careful planning, forecasting, and high-frequency active management. Automation is required to fully maximize your ROI and extract the most value from the cloud.

Cloud Discount Instrument Quick Reference Guide

Managing discount instruments can be complex, especially if your organization uses more than one cloud, because each cloud provider has its own unique set of instruments, billing schema, rules, and capabilities. Think of these disparate billing models like tax codes across states. They can differ drastically and can change frequently. Here's a quick overview of standard discount instruments across each cloud in descending order by discount potential.

aws

Standard Reserved Instance (RI)
Commitment to a specific service or resource type in a specific region for 1 or 3 years. High discount potential but limited flexibility if workload demands change.

Convertible Reserved Instance (CRI)
Similar to Standard RIs, except CRIs are exchangeable. CRIs offer slightly lower discount potential but more flexibility to adapt to workload changes.

Savings Plan (SP)
Commitment to a specific amount of usage for a discounted hourly rate over 1 or 3 years. Discounts are broadly applicable across services, regions, and instance types. SPs are immutable, so over-commitment can result in financial loss if not fully utilized.

Azure

Reservations (includes RIs)
Commitment to a specific service or resource type within a particular region for 1 or 3 years. Reservations can be exchanged within the same instance type, providing some resource flexibility if workload demands change.

Savings Plans
Commitment to a specific amount of usage for a discounted hourly rate over 1 or 3 years. Similar to AWS, Savings Plans provide a straightforward way to save broadly on Azure computing infrastructure.

Google Cloud

Resource-based Committed Use Discount (R-CUD)
Commitment to a specific service or resource type within a particular region for 1 or 3 years. Unlike CRIs and Reservations, R-CUDs are not exchangeable.

Spend-based Committed-use Discount (S-CUD)
Commitment to a specific amount of usage for a discounted hourly rate over 1 or 3 years. Discounts are broadly applicable across regions and resource types. They are immutable, so over-commitment can result in financial loss if not fully utilized.

Sustained-use Discount
Automatic discounts are applied when resource consumption surpasses a significant portion of the monthly billing cycle.

How commitments are commonly used

Commitment Type	Where to use them
Standard Reserved Instances **Resource-based Committed Use Discounts**	Used to achieve high discounts when engineers are certain that computing resources for an application will remain in a single region and use the same resource types continuously for an extended period of time.
Convertible Reserved Instances **Reservations**	Used to achieve high discounts when engineers need some resource flexibility in a single region and expect the application to use similar resource types.
Savings Plans **Spend-based committed use discounts**	Used to achieve savings for organizations that use a wide mix of services and resources across multiple regions that can change frequently.