



Creating a culture of engineering cloud cost ownership





Creating a culture of cost ownership

The many advantages of computing in the cloud are certainly no secret. According to a Gartner Report, nearly 90 percent of organizations worldwide have some portion of their infrastructure in the public cloud. At the same time, widespread use has concurrently led to skyrocketing cloud costs.

This year, users will spend north of \$300 billion on cloud infrastructure as a service (IaaS). With rising costs comes associated waste. Some estimates place excess spending at nearly 30 percent. Reigning in spiraling IaaS expenditures is vital for profitability and continued viability. Containing cloud costs yields multiple benefits, some extending beyond the bottom line.

Realizing impactful cloud optimization requires infusing the mindset of cloud cost ownership throughout your development teams, and entails a multifaceted, dynamic approach. Engineers by their nature are singularly focused on engineering new solutions without necessarily being mindful of cloud cost efficiency.

Through a comprehensive effort featuring the proven components of cloud cost attribution, real-time information, cross-functional collaboration and continuous usage improvement, you can instill true cloud cost ownership up and down your organization.





Lay groundwork

Successfully instilling cloud cost ownership throughout your organization starts with a plan. Reach out to key stakeholders in finance, DevOps and engineering whose buy-ins are essential. Paint for them your vision of cloud cost optimization, as well as stress the potential hazards of not taking positive action. Solicit input and enlist their help in spreading the good word among team members. Identify KPIs to track cloud cost savings performance. Then move full speed ahead on a collectively agreed-upon scheme of action.

State clearly to team members your overall goals and detail individual and team expectations. Go over any cross-collaboration efforts and their required participation as determined beneficial. Spell out the impact of cloud efficiency in boosting the viability and long-term competitiveness of their organization. Make it real with concrete, real-world examples. Relate complete cost transparency and indicate how savings can benefit everyone.

“Yotascale is great for having informed conversations with our engineers about cloud costs.”

- Ernesto Ruy Sanchez
Senior SecDevOps Engineer, ForeSee Medical

Cloud-optimization benefits:

-  **Boosted visibility** – Awareness of cloud costs helps ingrain their significance.
-  **Leaner is meaner** – Cut the usage fat so your organization can soar.
-  **“Cookin’ with gas”** – Innovation in cloud optimization inspires innovation in all areas.



Appeal strategically

Ultimately the success of your cloud cost ownership efforts depends upon the efforts of frontline engineers. Spell out the impact of cloud efficiency in boosting the viability and long-term competitiveness of their organization. Changing practices among highly intelligent, extremely driven and competitive software designers, as with most audiences, requires both rational and emotional appeals...

Professional pride – Engineering well means engineering cost-effectively. Skilled developers also relate to messages regarding professional ethics.

Organizational responsibility – Certainly team members will understand the importance of bottom-line ROI for their employer and themselves.

Environmental concern – Beyond costs, optimizing cloud usage will actually decrease organizational cloud carbon footprint by decreasing electrical loads of cloud servers. A single data center can consume energy equivalent to 50,000 homes. Smarter use promotes a healthier planet.

Incentivized gamification – Tap into engineers’ competitive nature and gaming love by giving them access to actual cloud costs as they accrue. Gamification is a proven technique to motivate both teams and individuals. Much like the “Prius effect” encouraged drivers to maximize gas efficiency through its dashboard display of the engine’s usage of its electric battery versus its internal-combustion motor.

Hazards of not optimizing your cloud:



“Black box” effect – Lack of usage visibility can hide both inefficiencies and potential security issues, as well as foster interdepartmental conflict.



Ignorance is not bliss – Ignorance of and apathy to optimization best practices can seep in development practices.



Carbon “un”positivity – Big servers aren’t powered by tofu and chai tea. Cloud cost ownership saves electricity and vital resources, both natural and monetary.



Attribute granularly

Essential to engineering accountability is resource tagging and reporting every cost thoughtfully and according to basic principles. Devise and go over a tagging matrix connecting usage expenditures to specific and correct cost centers (see sidebar).

Extend ownership to those individuals or core teams directly in control of cloud usage. Start with broad categorizations and drill down to functions that can be owned individually or by core few team members. Is the cost related to business or technical objectives? What area does the project cover?

The range of granularity varies with project maturity. At the outset all cloud costs may be attributable to general development efforts among a small team. At full steam, expenditures should be attributable according to established hierarchies and in keeping with overall goals.

Tag like you mean it.

True cloud cost ownership requires thoughtful, specific tagging. When engaging the cloud, consider the following attributions to mix, match and form hierarchies as appropriate:

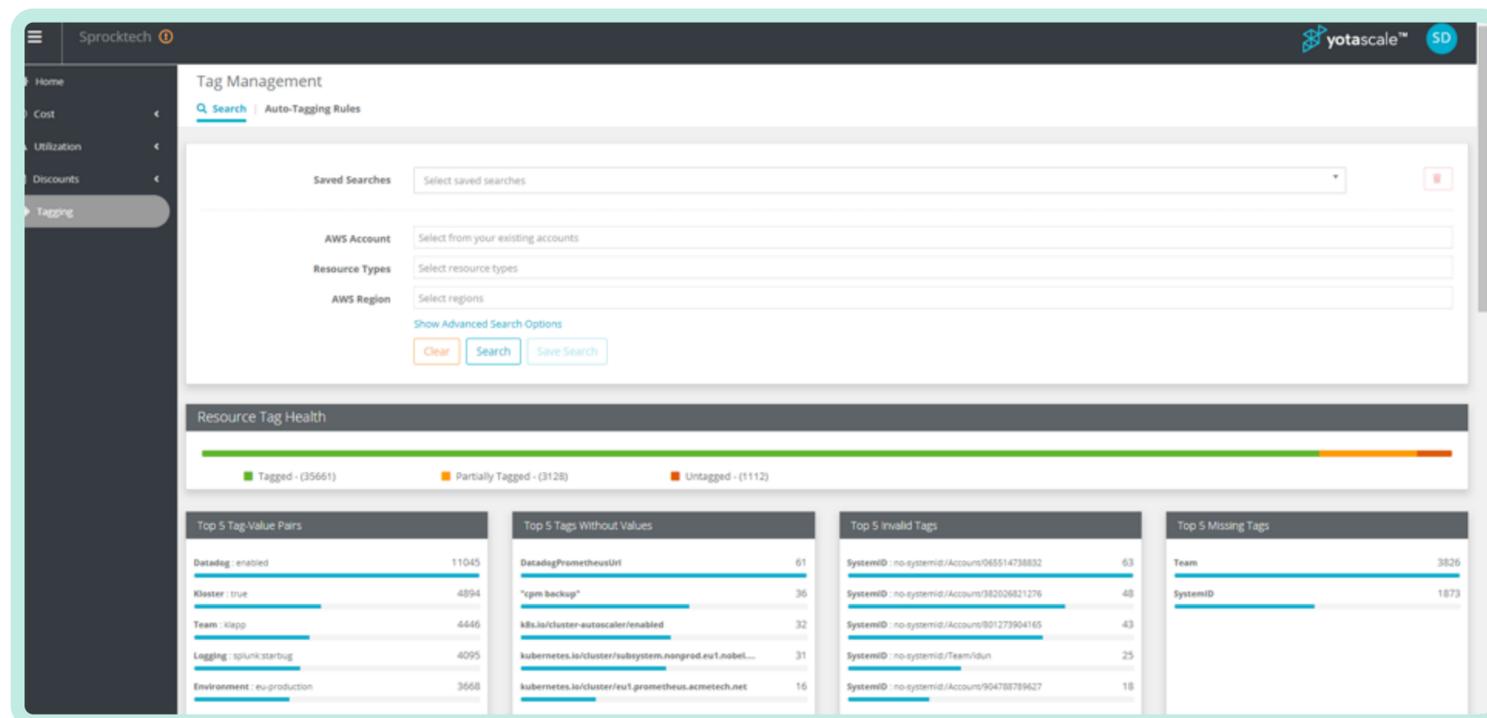
Name – For projects with a unique moniker or naming convention.

Department – Attributable in whole or large part to a particular business unit or cost center such as finance or marketing.

Product – Creating, updating and maintaining products and services.

Purpose – For costs related to functions crossing teams and departments.

Dev stage – Specifying birth, expansion, beta testing, pre-release and launch stages.





Foster cross collaboration.

Engineering, financial and DevOps teams can indeed work in harmony. Through cloud cost transparency and mutual understanding of the others' perspective and concerns, departments can work synergistically and support each other in achieving their respective goals. Creating a cross-functional work group devoted to cloud cost optimization can help promote cooperation and spur new ideas to raise performance and efficiency. Participants can voice concerns, negotiate cloud costs against budgets and conspire on shared goals of overall success and long-term viability.



“I don’t need to be the bottleneck for cost accountability – everyone can now find and reduce inefficiencies.”

- John Gerhardt
Director of Engineering, Compass



Leverage a specialized platform.

Facilitate cloud cost ownership through a powerful, dedicated platform. Yotascale gives frontline engineers and key stakeholders the real-time information needed to take immediate and long-term action. As IaaS providers offer increasingly differentiated features, our simplified tools empower user organizations to efficiently leverage them. As your teams develop deeper, more complex systems and products, they have detailed usage feedback to keep cloud costs in line. As your organization grows, our scalable optimization solution grows with you.

See for yourself.

Try our cloud-optimization free for 14 days. Check out tools featuring:



Hierarchy mapping



Collaborative optimization



Automated cloud cost attribution



Team-Based Budgeting and Forecasting



Spending spike alerts

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