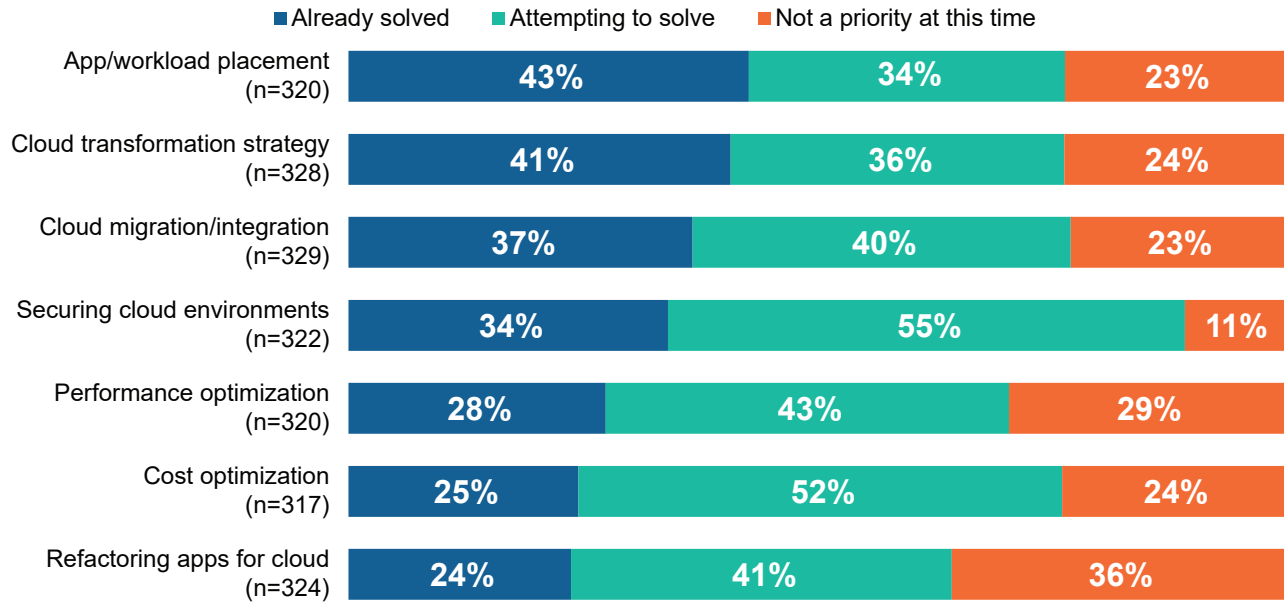
Enterprises Are Investing in Cloud Cost and Resource Optimization

The 451 Take

Manually configuring cloud platforms in a cost- and security-optimized fashion is a sufficiently heavy lift for one developer on one application. The institutional and industry knowledge needed to do so successfully across applications and environments is likely beyond the (comfortable) ability of a lone developer or operations employee. Enterprises with multiple applications practically require some method of cloud resource management to prevent cloud bills from becoming sky high.

To meet the requirements of the modern IT landscape, cloud management platforms must deliver features and toolsets relevant to the engineering stakeholders charged with administering a specific workload, while providing insight and cost attribution for the benefit of finance stakeholders. Deploying and running an application securely *and* within a budget is a balance that requires adherence to best practices for cost optimization, targeted placement and sizing, security policies, and sensible app engineering.

Ensuring Secure Cloud Environments Remains an Elusive Operational Goal



Q: For each of the following operational challenges associated with public cloud or hosted infrastructure, please indicate whether your organization is currently attempting to solve the issue, has already solved it, or it is not a priority.

Base: Those using or planning to use IaaS, PaaS or hosted private cloud

Source: 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Budgets & Outlook 2021

Yet, cost optimization remains beguilingly difficult for enterprises; only a quarter of respondents in 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Budgets & Outlook 2021 survey indicated that they have solved this challenge, and 52% are attempting to solve it presently. With the spiraling complexity of cloud platforms – and the ever-increasing portfolio of instance types, sizes and other services – gaining full visibility into the breadth and depth of options requires hours upon hours of study.

Ultimately, engineers possess an intimate understanding of the requirements of the applications they develop. Routinely, this knowledge can be reasonably transferred to operations teams, but finance stakeholders are unlikely to possess the operational knowledge to reasonably act on this information, though they must keep apprised of where money is being spent. Finding harmony among these three stakeholders is a careful balance that must be considered in a cloud deployment.

Business Impact

Cost optimization remains an unsolved problem among enterprises. There is an understandable level of inertia in cost optimization: engineers and operations teams rarely react kindly to penny-pinching by finance stakeholders, while finance stakeholders often have limited ability to connect the dots between utilized cloud resources and the business processes consuming these resources.

Cost-optimization concerns scale with business size. Nearly two-thirds (64.6%) of enterprises with 10,000+ employees indicated they are attempting to solve cost-optimization challenges, compared with only 42.6% of small businesses with fewer than 250 employees. Accordingly, cost optimization gains urgency with increased cloud spending; only 45.6% of respondents with annual cloud spending of up to $100,000 are attempting to solve for cost optimization, whereas 73.5% of enterprises with over $5m in annual cloud spending are focusing on cost optimization.

Invest in cost optimization to save money going forward. Likewise, the same survey found that 40% of enterprises are planning to increase spending on cloud cost optimization, and that 55% are increasing spending for cloud-native management tooling. This is a clear investment not just for reducing cloud spending; rather, the priorities lie in increasing the visibility into and attribution of applications as billed cloud resources.

You're here to deliver a product or service. Cloud computing is chiefly a means to an end – interesting lessons can be learned in the course of a cloud deployment or migration, but most enterprise consumers of cloud are not *by themselves* cloud companies. Developing a custom platform for managing cloud resources within your own organization is a heavy lift; if this task were easy, more organizations would have solved for cost optimization by now.

Looking Ahead

The increasing prevalence of container-based workloads, the compute instances that power those workloads and cloud-native technologies such as serverless compute contribute significantly to cloud complexity. As the straight lines between systems and applications on traditional deployments become squiggly, the task of optimizing cloud cost spending can land stakeholders in a tangled mess.

While improvements to the billing management interfaces provided by cloud platform operators will inevitably come to pass, customers may hold the opinion that these first-party services have a bias toward the preferences of the provider, making third-party cloud management platforms more trustworthy for finding cost savings.

Likewise, first-party cloud management tools provide limited, if any, visibility into outside infrastructure, making them less than ideal for multicloud deployments. Fundamentally, billing management tools are not collaboration tools. A fully featured cloud management platform, when integrated into a given customer environment, can surface relevant information for the roles of individual contributors and enable collaboration between different groups – operating on a single or multiple clouds – within an organization.