Business Impact Brief

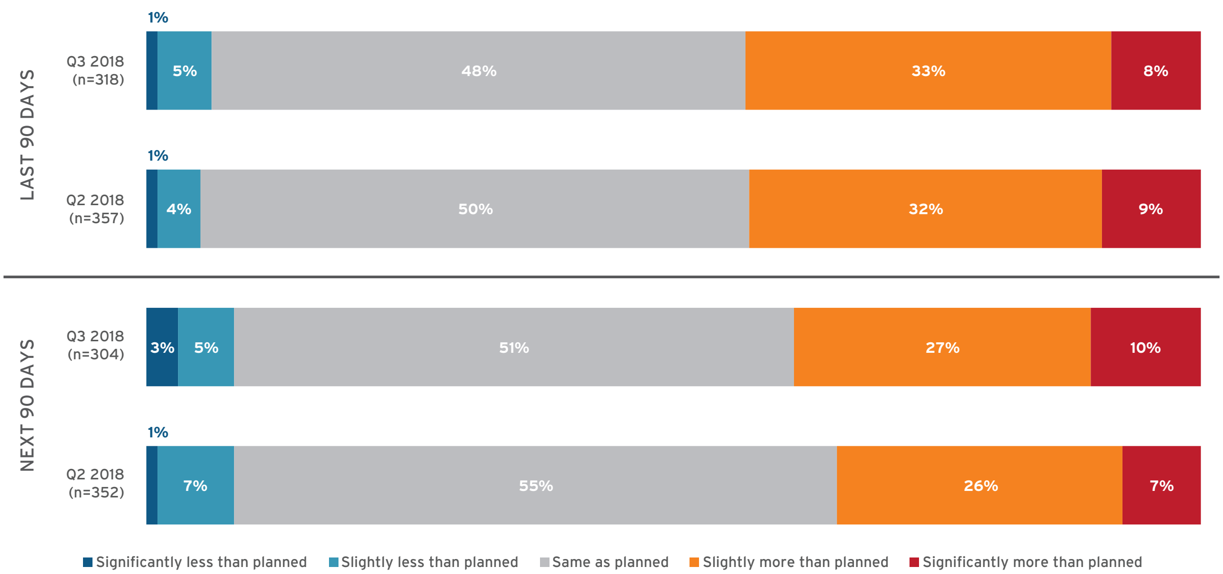
Cloud Costs: Great Power Brings Great Responsibility

The 451 Take

The flexibility delivered by on-demand access to unlimited cloud resources can enable business benefits way beyond the realm of the IT department, and can create new opportunities quickly and optimally. But with this great power comes great responsibility, and uncontrolled resource scaling can rapidly lead to spiraling costs. In fact, around 40% of enterprises surveyed by 451 Research are regularly spending more on cloud than they budgeted for, with around 10% saying they expect to be 'significantly above budget.' Around 27% expect this overspending to continue into the future.

IaaS Spending Compared to Plan

Source: 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services Vendor Evaluations 2019



Often this overspending is because the business is using cloud resources to target new opportunities, which is exactly the value of cloud. But these costs still have to be allocated, monitored and budgeted to ensure ongoing value to the business. Sometimes runaway costs are due to mistakes or oversights caused by the huge complexity of cloud pricing options. Factor in the scale of many cloud deployments, and the challenge is ever greater.

To control and optimize these costs, enterprises need to build tools into their processes and use them on an ongoing basis to optimize capacity, enhance visibility and increase accountability. Even simple changes can make savings – for example, only 34% of enterprises are pre-paying for cloud resources today, which can bring savings of up to 50% compared with on-demand billing. Other models allow enterprises to make a monthly commitment, which can generate large savings without the need for capex or longer-term forecasts. Cloud buyers should investigate which combination of options best suits their specific requirements.

Business Impact

The overspending problem is caused largely by the on-demand nature of cloud, where users can consume huge amounts of resources at the click of a button. To an individual user, a GB of storage costing a few cents is inconsequential. To an enterprise, the sum of all of these cents consumed by so many employees can be significant. And often, the implication of letting employees consume what they want when they want isn't revealed until the invoice hits the CIO's inbox at the end of the month – that's assuming they have visibility into what they are using.

As more resources are consumed, there is increased likelihood of resources being forgotten about or incorrectly sized, leading to additional, non-value-adding expenses. This is especially true considering the complexity of cloud pricing – 451 Research's Cloud Price Index tracks a colossal 1.2 million price line items across the hyperscaler cloud providers. In addition to on-demand instances, there are options to reserve capacity, or bid for spare capacity on a spot market. New service tiers let buyers choose exactly the quality of service or performance they require, at the best price for them. Such options provide greater flexibility, but make effective decisions more challenging; it's difficult enough managing cloud costs, let alone optimizing them.

Looking Ahead

Ultimately, business leaders must give developers and lines of business the scalability they need, while ensuring that consumption is controlled, accountable and optimized. Our recommendations:

- **Use management tools that let developers scale as required, but with defined limits** (and with approvals if necessary) – tools that record and tag usage so it can be accurately tracked. According to 451 Research's, Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads and Key Projects 2018, 34% of enterprises are using a cloud management platform.
- **Use dashboards and reports to track spending** on an ongoing basis, and set alerts to keep costs in check. Build processes around these tools to enforce wise spending practices.
- **Use flexible hybrid and private cloud procurement models** that provide some capacity at a fixed or predictable cost, while allowing for controlled, planned growth.
- **Use capacity planning tools** to accurately predict usage so costs can be optimized across venues and allocated correctly. Companies that mix and match cloud resources from multiple providers can save 74% in the best-case scenario, according to the Cloud Price Index.
- **Mix and match different pricing models as needs change** to optimize spending. Among respondents to our Voice of the Enterprise: Cloud, Hosting & Managed Services, Organizational Dynamics study in 2018, 34% said they paid up-front for cloud resources, with 10% stating they took advantage of variable-price 'spot' instances.