SaaS Cloud Spend Survey 2020

July 2020

In association with:

MENLO VENTURES

IVP

UNUSUAL VENTURES

This report was a result of our CFO John Bonney grappling with Harness cloud spend over the past year.

John searched high and low for industry KPIs and benchmarks to determine whether Harness cloud spend was ok, good, bad or ugly relative to our peers. John noted a distinct lack of information and insight was available for finance leaders in his position.

As a result, Harness decided to survey executives of SaaS companies across multiple industries to understand their cloud spend, and how cloud costs were being managed across different org structures, processes and teams.

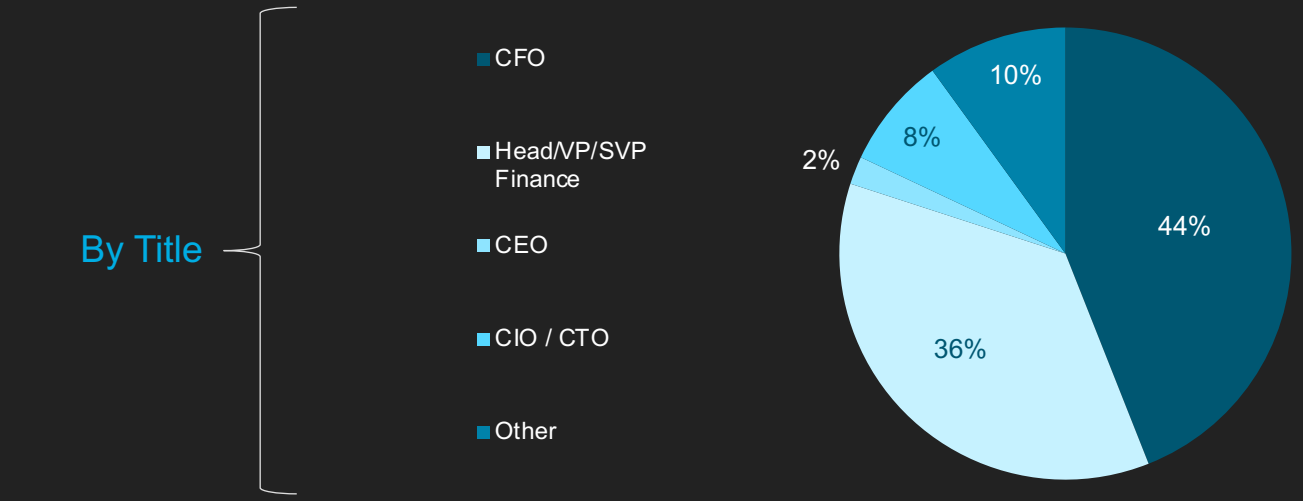
We had 50 responses to our survey, this is what we learned.

Survey Demographics

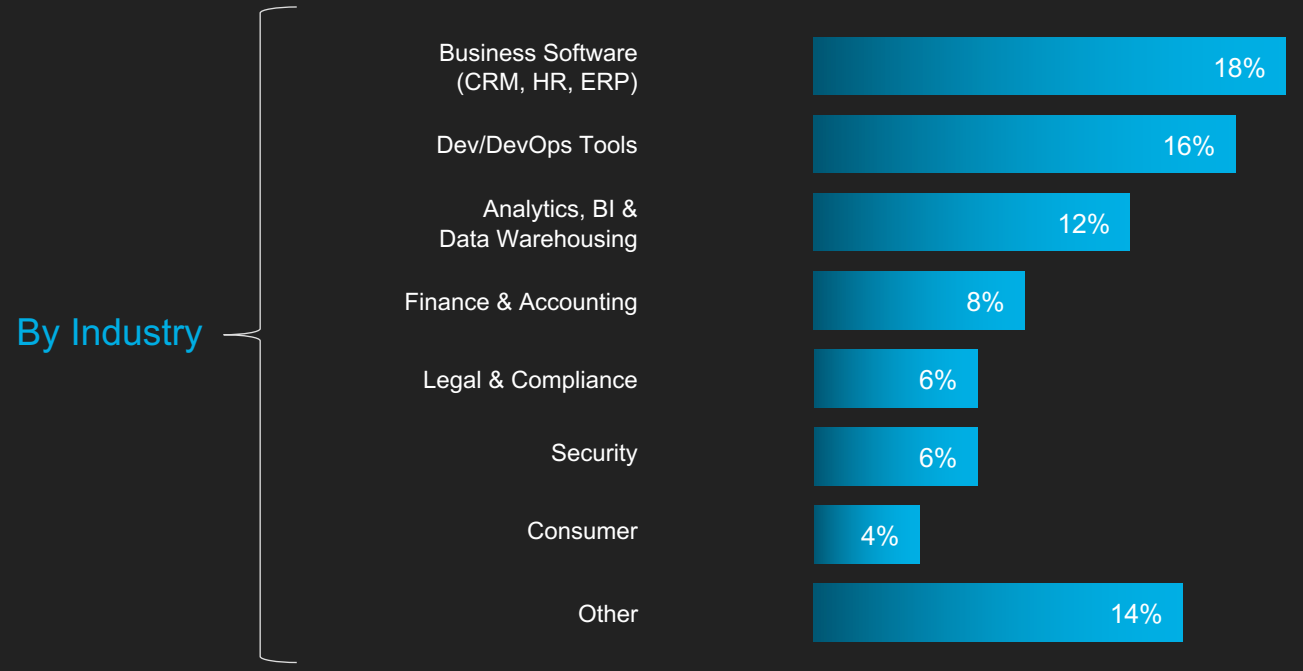
The insights in this report are primarily from the perspective of the finance department as the demographics highlight 80% of responses came from CFOs and finance leaders.

However, the survey does provide a broad view of SaaS cloud spend across a range of different industries from consumer to DevOps tooling. This is important so that CFOs and finance leaders can benchmark themselves to their industry peers.

By Title



By Industry

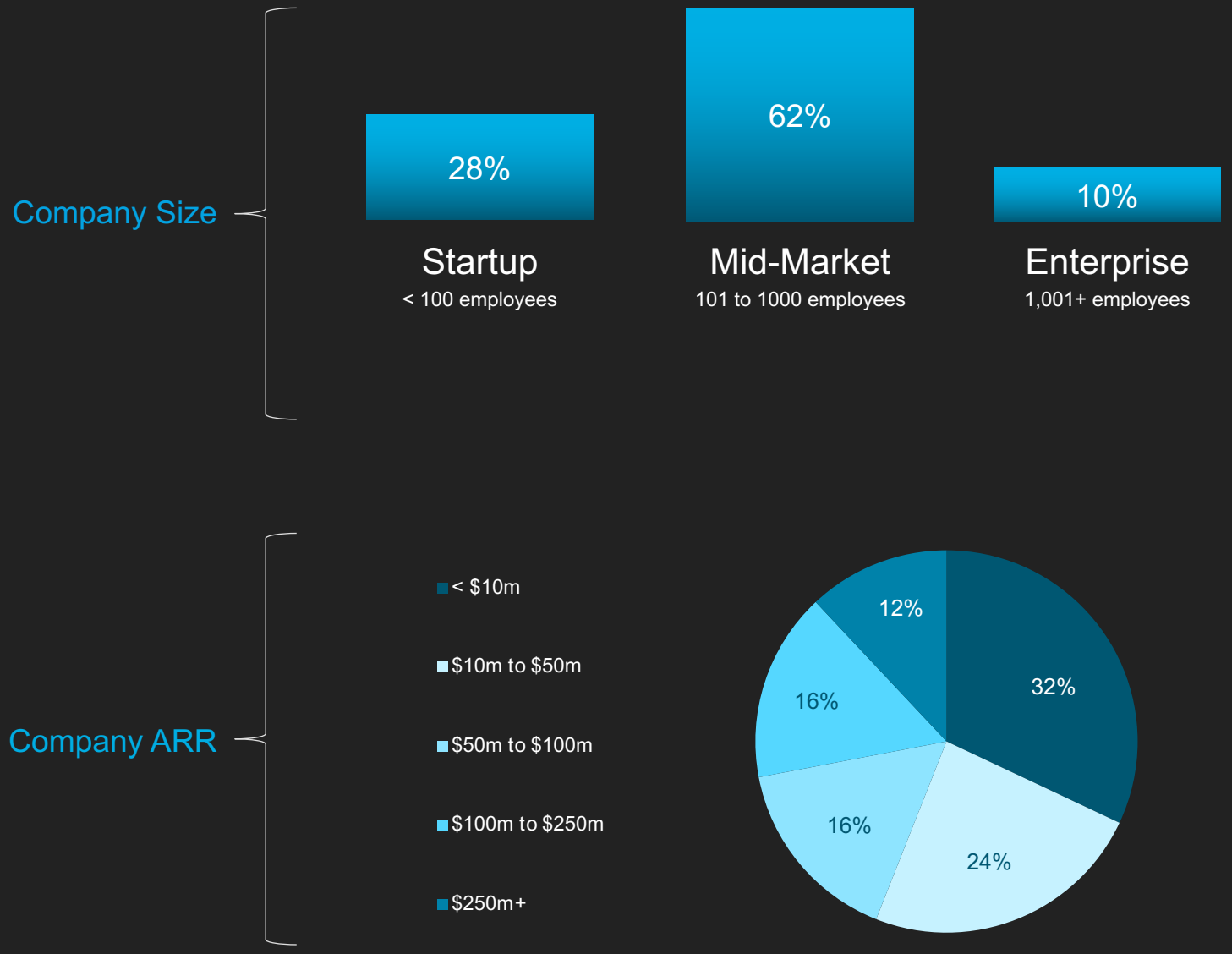


Survey Demographics

We also saw a healthy distribution of responses from different sized companies and ARR ranges.

28% of responses came from startups, 62% from mid-market, and 10% from enterprise. Its therefore going to be interested to compare and contrast how cloud spend is managed across these segments.

The survey also created diverse ARR ranges we observed from responses. 56% of responses had ARR of less than $50m, 16% had between $50m and $100m ARR and 16% had between $100m and $250m.

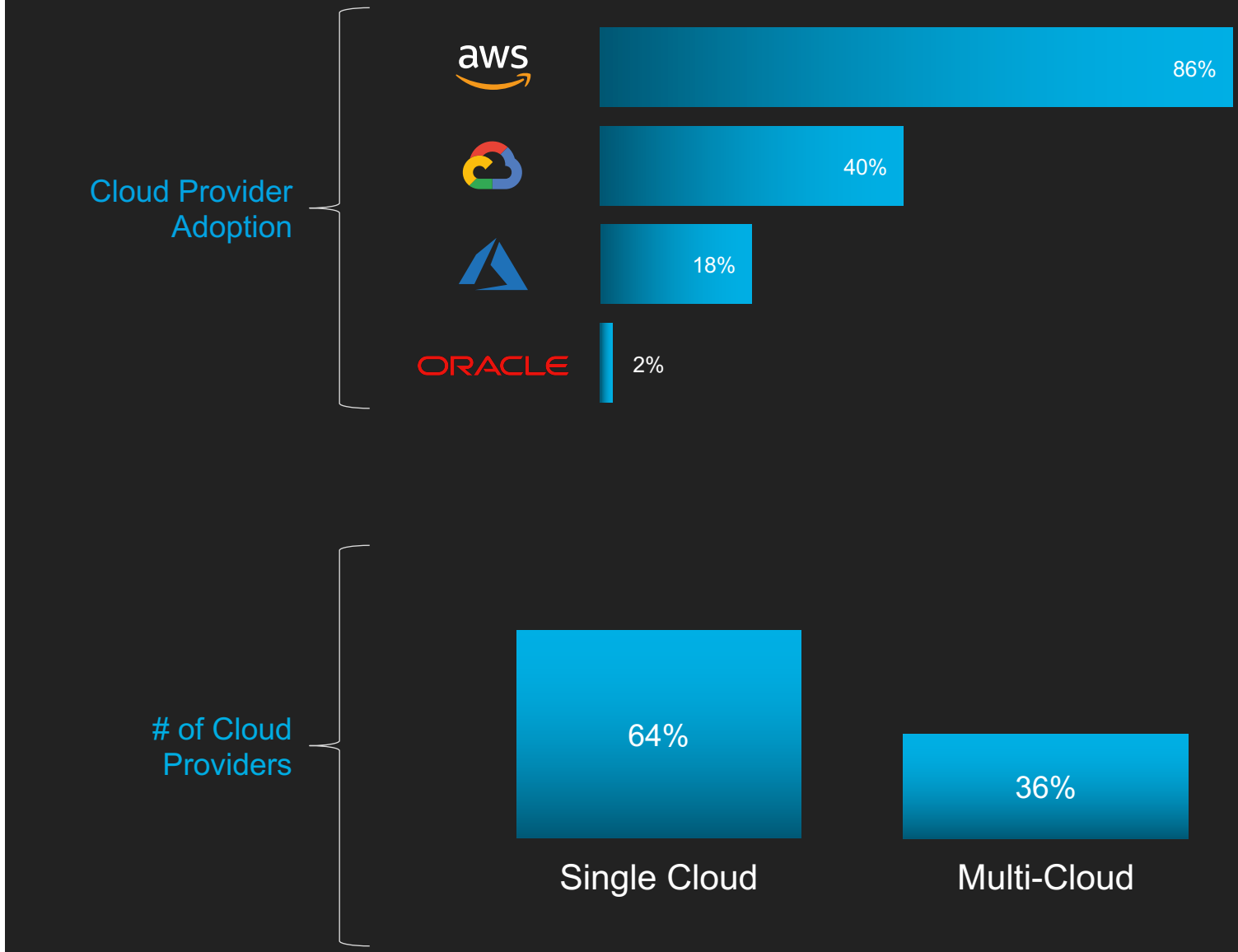


Cloud Provider Adoption

As you might expect, Amazon Web Services (AWS) was the most adopted cloud provider. Surprisingly, Google Cloud Platform came in second with 40% adoption, ahead of Microsoft Azure with just 18% adoption. An honorable mention and shout out for Oracle Cloud with a mere 2% adoption.

Could the adoption of Kubernetes and Google Kubernetes Engine (GKE) be the reason for GCPs progress? Or is it simply a case of attractive pricing to compete with AWS and gain market share?

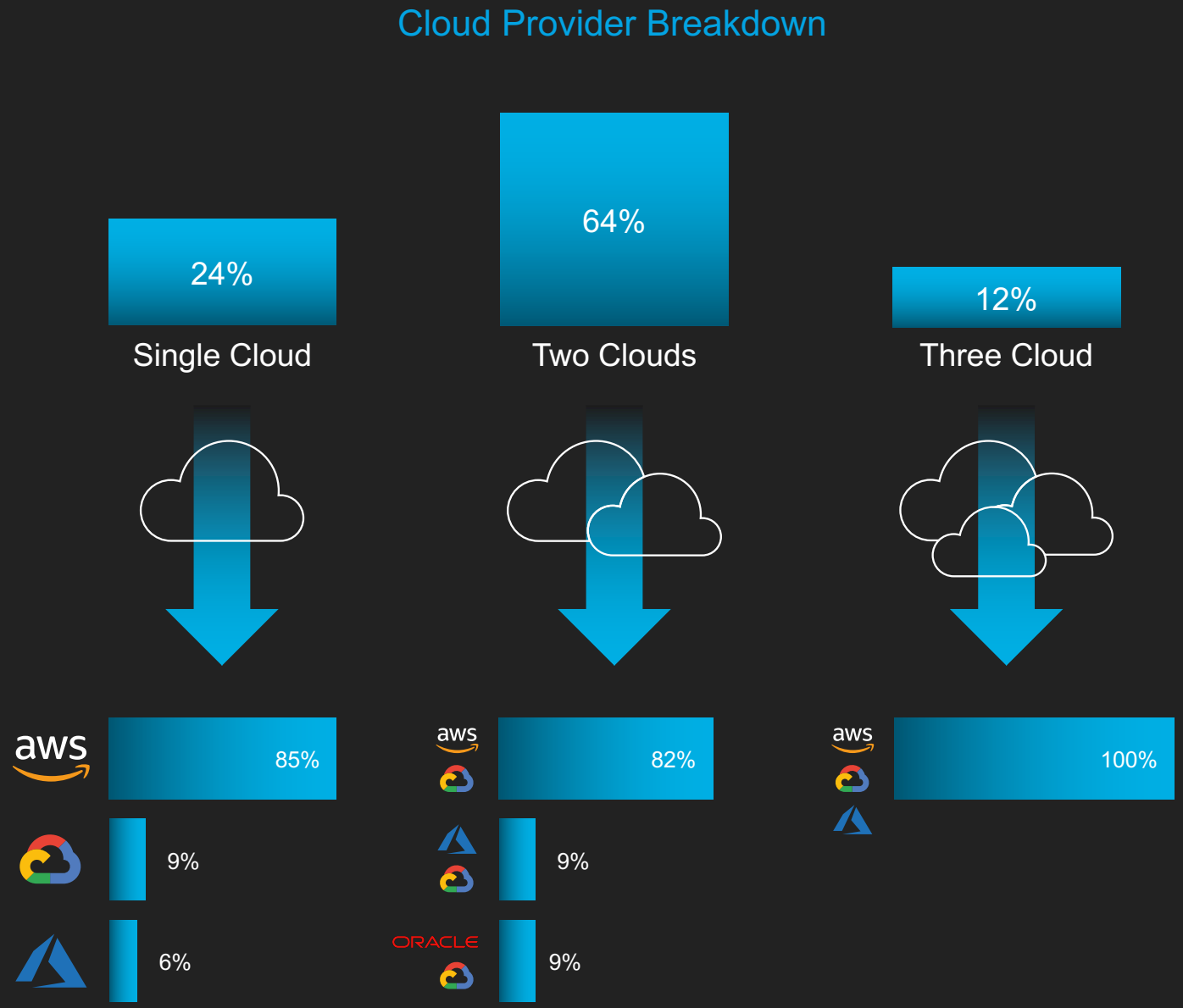
Perhaps the most interesting insight was the adoption of multi-cloud by SaaS vendors with over a third of companies choosing to adopt more than one cloud provider.



AWS was again the dominant leader with 85% of responses who operate a single cloud. The gap to GCP and Azure is significant, with just 9% and 6% of responses, respectively.

Things get interesting when SaaS vendors go multi-cloud. The most popular combination was AWS and GCP which made up 82% of responses that operated two clouds.

12% of responses operated AWS, GCP and Azure proving that some SaaS vendors are prepared to accept complexity in return for benefits that each cloud provides.



Cloud Spend Benchmarks

The average cloud spend across all survey responses was $4.69 million, the median was $2.5m.

The average SaaS startup (up to 100 employees) spends a staggering $1.16m annually. That figure balloons to $4.87m as these startups grow into mid-market (up to 1000 employees) and then $13,500,00 for enterprises.

This is also reflected in the average cloud spend by Annual Recognized Revenue (ARR).

SaaS vendors who have less than $10m ARR spend an average of $1.5m annually, and dramatically increases to an average of $4.5m as SaaS vendors look to grow ARR to $50m. Like company size, cloud spend normalizes and becomes more efficient as SaaS vendors get bigger and hit $100m ARR and beyond.

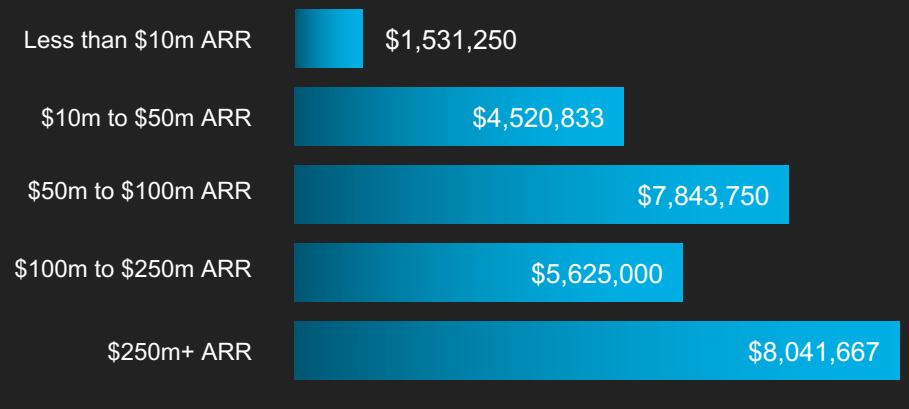
The cloud costs of going fast in the early days to achieve $50m ARR for SaaS vendors is noticeable. Is this down to lack of governance and visibility by management? Or just an accepted part and parcel of building a SaaS business?

Avg. Annual Cloud Spend

$4,695,000

Avg. Annual Cloud Spend by Company Size

Avg. Cloud Spend by ARR



Cloud Spend Benchmarks

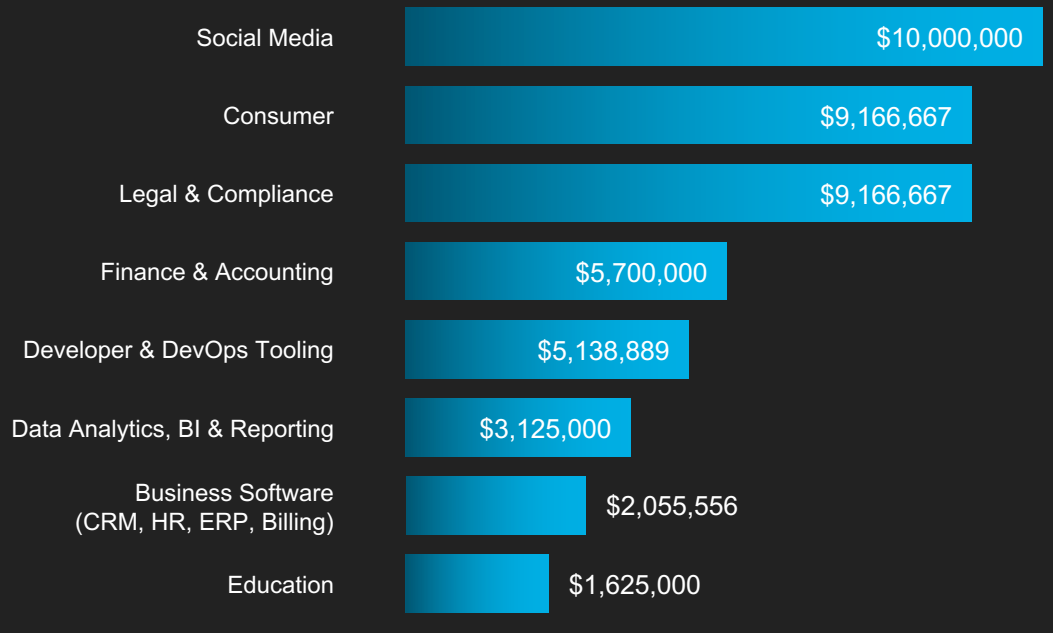
Social Media, Consumer and Legal & Compliance SaaS vendors top the charts for annual cloud spend. This makes sense given traffic and data volumes for SaaS applications in these industries would be higher than other industries.

Harness operates within the developer and DevOps tooling industry. Our run-rate in FY21 was at $1.2m in Q1 which was lowered to $700k in Q2 after we made several optimizations using our new Continuous Efficiency product. Details of how Harness manages cloud spend are at the end of this report.

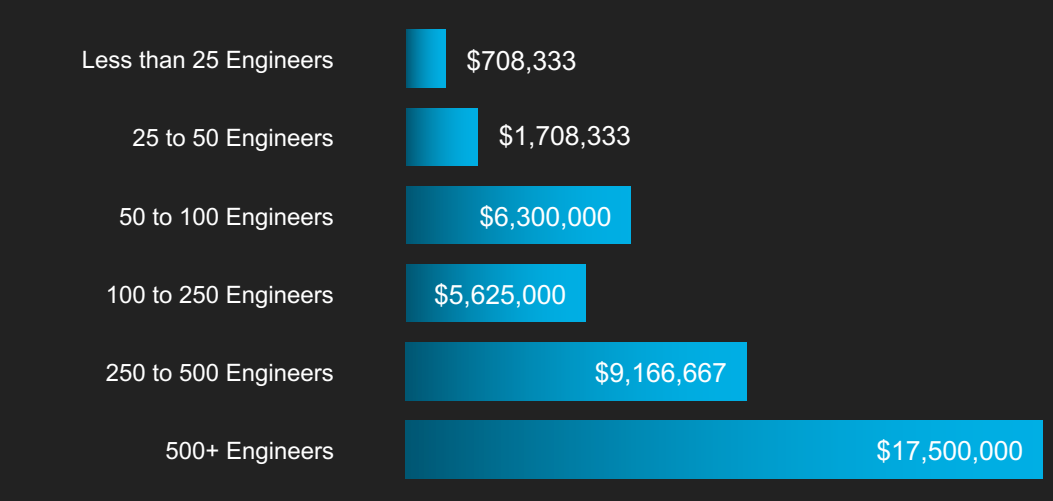
Looking at average cloud spend by number of engineers shows a clear correlation. Inefficiencies are observed between 25 and 100 engineers.

Tip: Investing in a cloud cost management process or making engineers accountable for cloud spend could pay dividends for new SaaS startups during this high growth phase.

Avg. Cloud Spend by Industry



Avg. Cloud Spend by # of Engineers



Cloud Spend % of ARR Benchmarks

Median cost of revenue for SaaS companies is ~23%, of that customer success costs is ~13%. This leaves 10% for cloud or infrastructure costs. A cloud spend of 10% of ARR is therefore considered OK, 5-10% is good, and less than 5% is best-in-class.

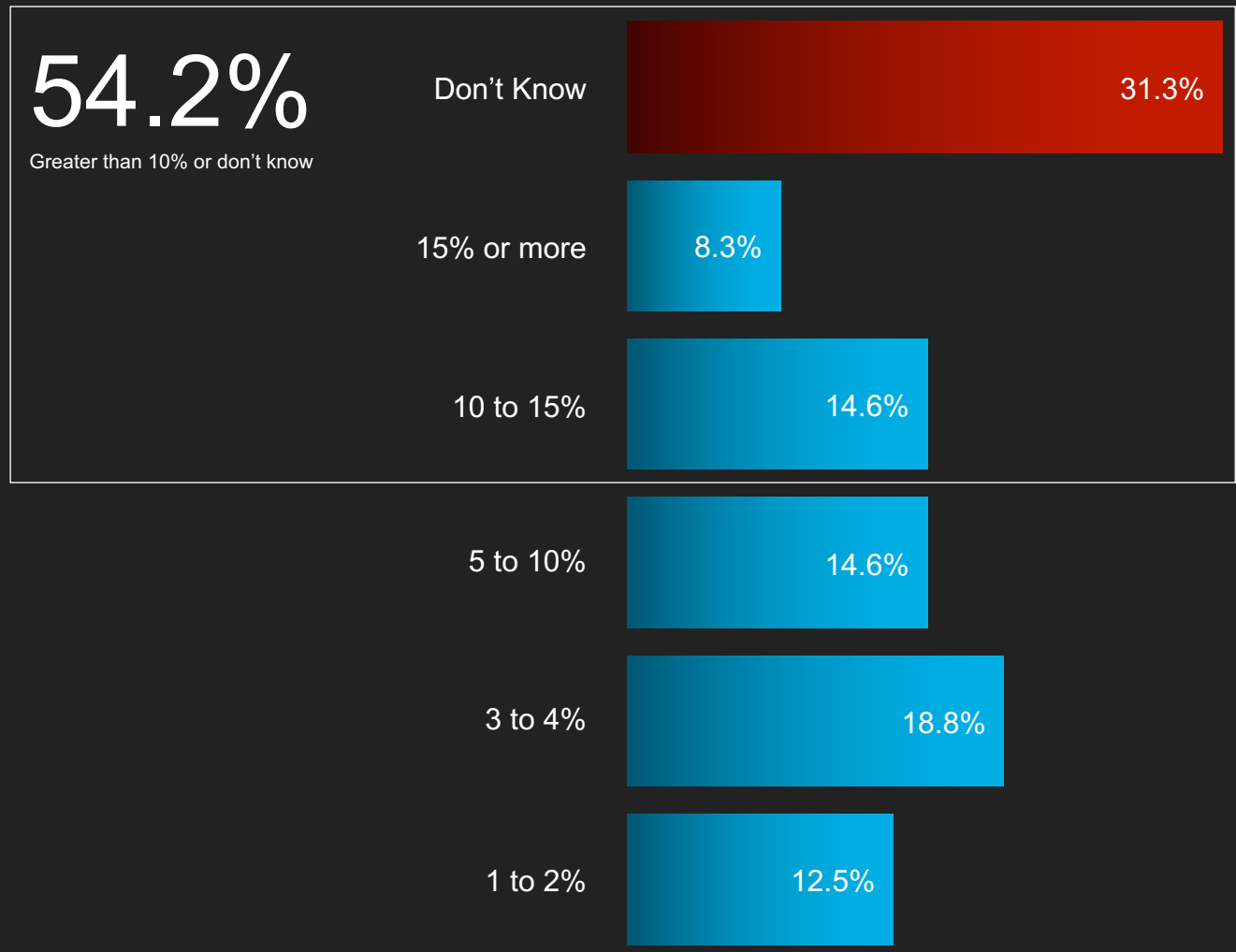
54.2% of responses (mostly CFO/head of finance) either didn't know their cloud spend % of ARR or were above the 10% threshold.

14.6% of responses were good, and 31.3% were best in class.

Cloud spend % of ARR is a good metric for finance teams to measure and govern through the evolution of their SaaS business and customer growth.

Tip: Identify your cloud spend % of ARR and lower it to single digits.

What is Your Cloud Spend % of ARR?

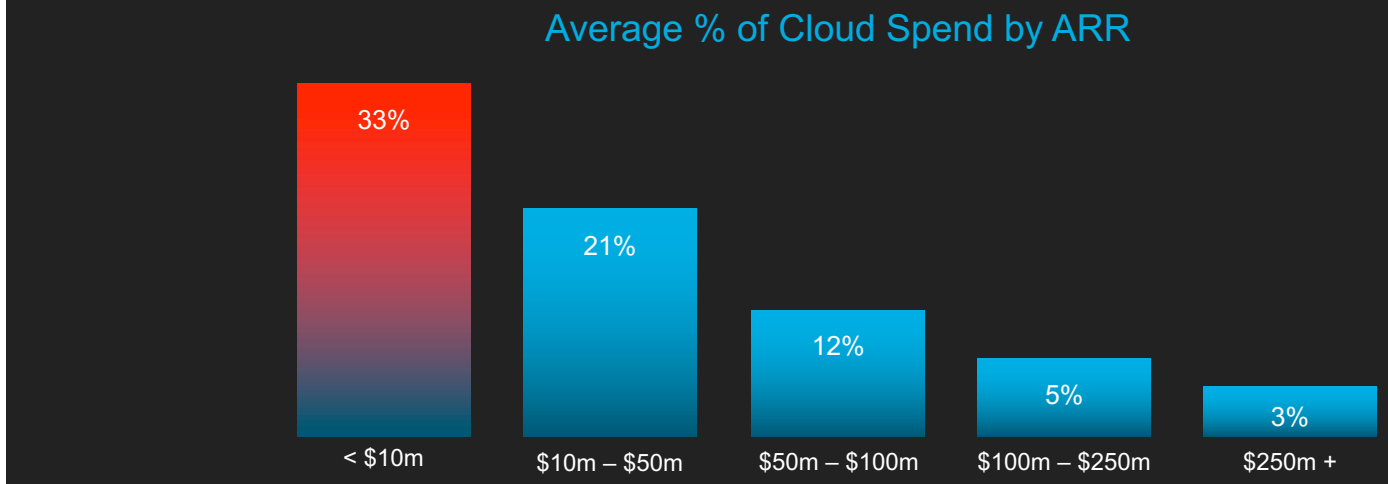


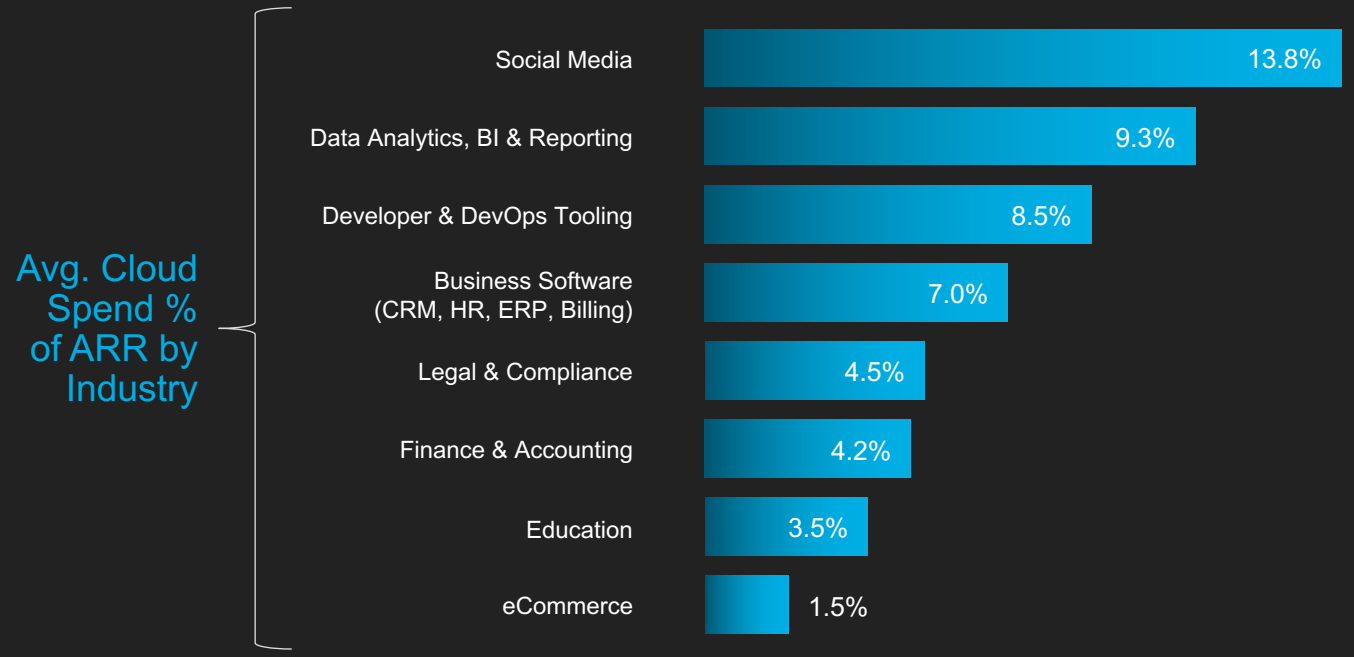
Cloud Spend % of ARR Benchmarks

The most interesting insight is when we look at % of cloud spend by ARR. As you would expect, burn rates are higher in startups (<$10m ARR) with an average of 33% of cloud spend, this improves to 12% as ARR passes $50m and comes down to just 3% as ARR surpasses $250m ARR.

You can see that the average cloud spend % of ARR by industry varies significantly. Hopefully, these benchmarks can help you understand what is good for your industry.

Tip: Its important to get your cloud spend % of ARR down to single digits as you cross the $10m ARR threshold. With a focus on cloud cost management and adequate cost visibility for your R&D teams, this should be possible.





Cloud Cost Management Ownership

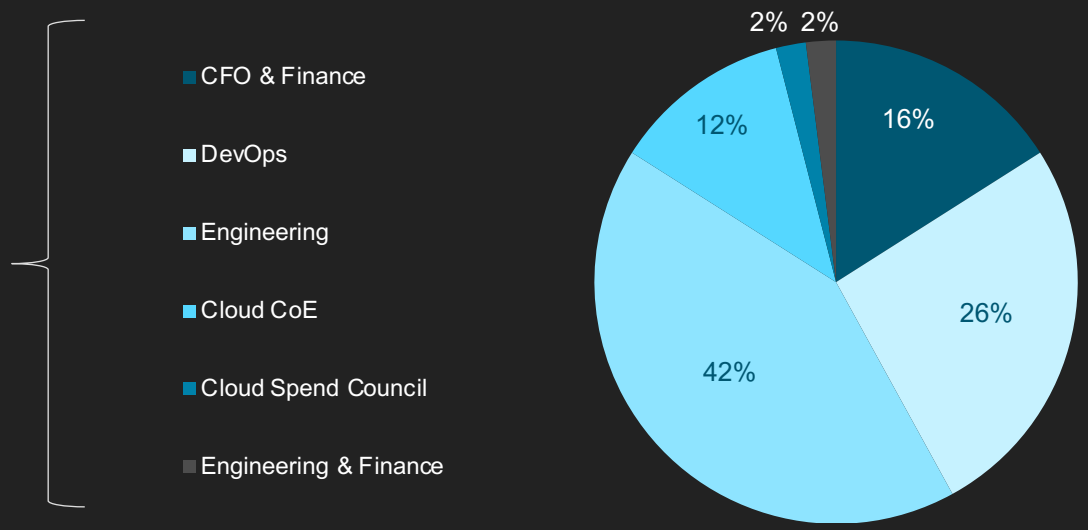
Two thirds of responses indicated the R&D organization solely owns cloud cost management at their company.

16% of responses highlighted CFO/Finance team ownership, and 12% showed a centralized cloud center of excellence (COE) owned cloud cost.

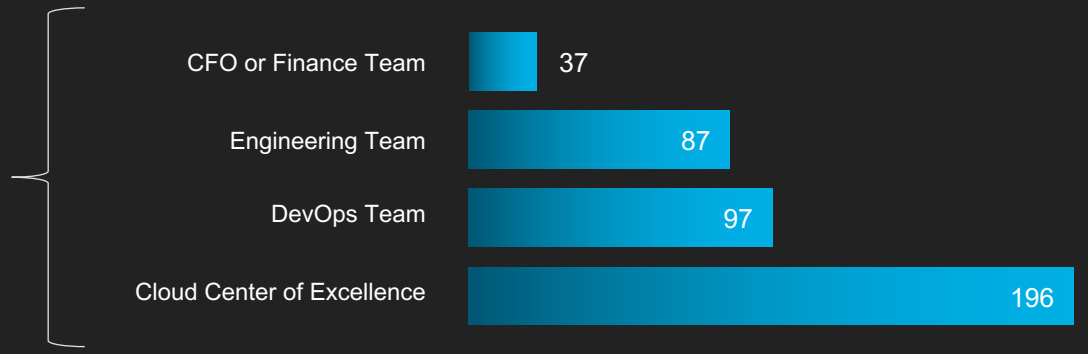
Slicing these responses by average number of engineers and employees shows that CFO/Finance typically own cloud costs in a small company with up to 40 engineers, R&D (engineering and DevOps) own cloud costs in a mid-size company with around one hundred engineers, and a cloud center of excellence exists in a large company with a few hundred engineers.

Tip: Empowering R&D in the early stages of a SaaS business with cloud cost visibility and ownership could set a healthy precedence. As highlighted previously in this report, cloud spend increases dramatically during the 25 to 50 engineers of a SaaS business.

Who Owns Cloud Cost Management?



Cloud Cost Owner by Avg. # of Engineers



Cloud Spend by Environments

40% of responses didn't know what % of cloud spend was related to production and non-production cloud infrastructure.

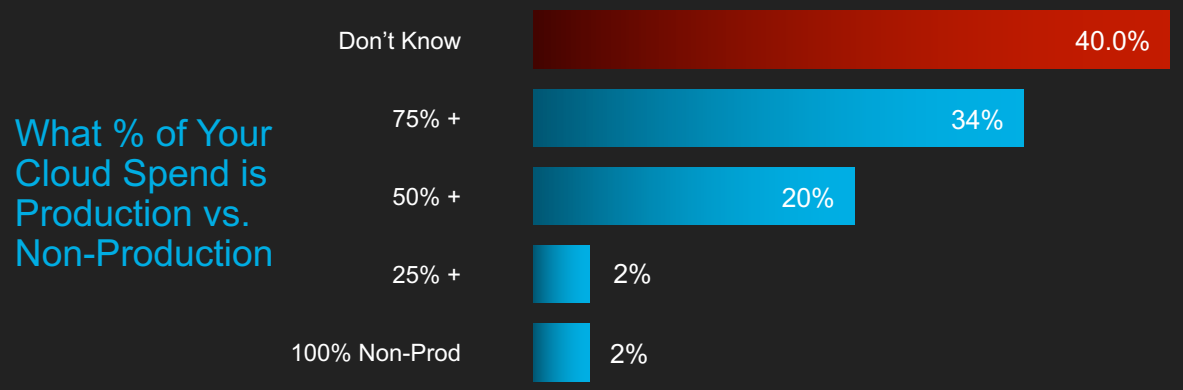
A third of responses stated 75% of their cloud spend was related to production, and 20% stated half their cloud spend was related to production.

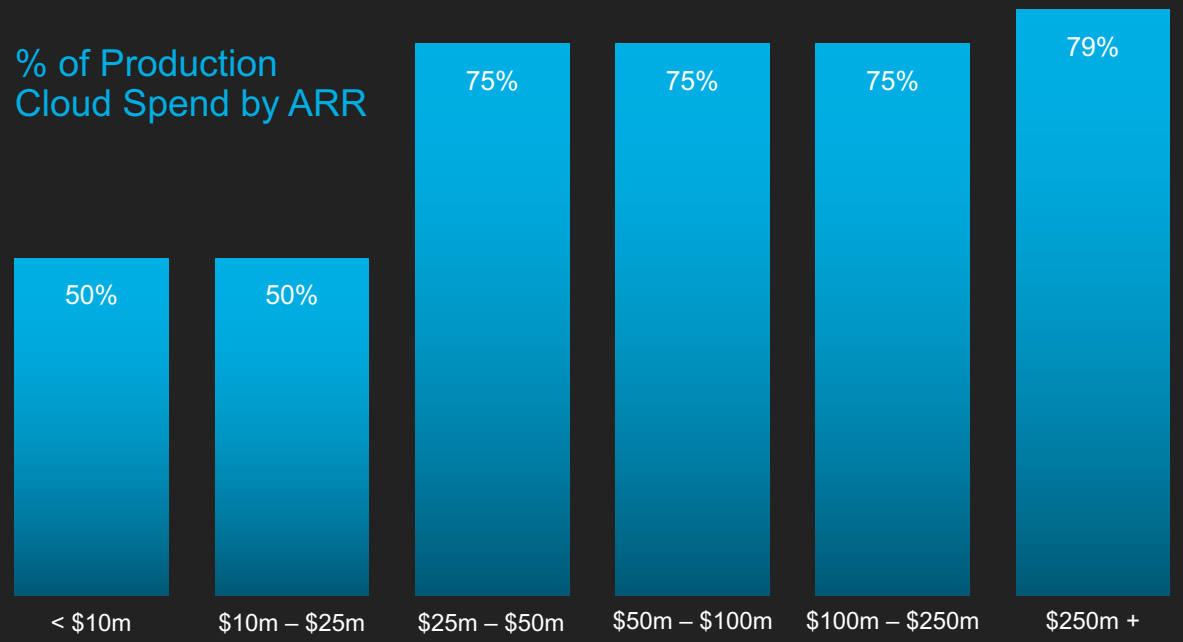
Remember, most companies treat production spend as cost of revenue (i.e. impacts gross margins) – whereas non-production is usually classified as R&D spend.

Its important to measure non-production cloud spend as the number of engineers in your company increases. More engineers means more code, more builds, more testing, and more change, all of which can incrementally increase cloud spend over-time. Knowing the split between production and non-production is critical.

Interesting data point, as you grow ARR the % of production shifts from 50/50 to 75/25 and eventually 80/20.

Tip: Make your non-production cloud infrastructure dynamic so they only exist when engineers need them. Reducing environments from 24/7 to 8/7 will reduce your non-prod cloud spend by 66%.





Cloud Spend Escalation

The most emotional insight from the survey was the frequency of cloud cost escalations across teams.

8% have escalations daily over cloud spend, 16% weekly, 12% bi-weekly and 46% monthly.

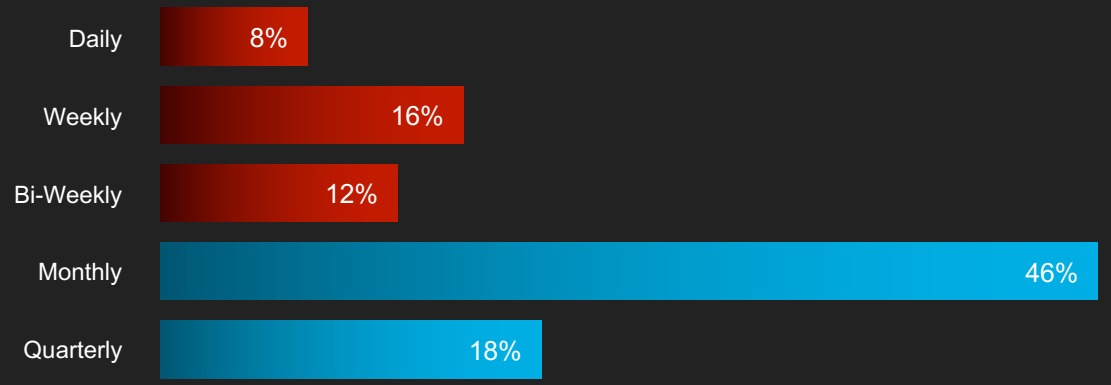
That's a lot of meetings, yelling and red faces for all concerned.

When you consider that the CFO or finance team get billed every 30 days this would somewhat explain why 46% of responses escalate cloud spend monthly.

Over a third of responses having escalations at least every two weeks feels unhealthy and avoidable.

Tip: Empower R&D teams with cloud cost ownership and give each team budgets so they can measure, and track cloud spend like they do performance, quality and availability/downtime. If R&D can see it they can manage it.

How often do you escalate, or question cloud spend spikes with your teams?



36% Escalate or question cloud spend spikes at least every two weeks.

88% Escalate or question cloud spend spikes at least every month.

How Harness Manages Cloud Spend

All Engineers have self-service access to cloud cost visibility of their applications, microservices and environments.

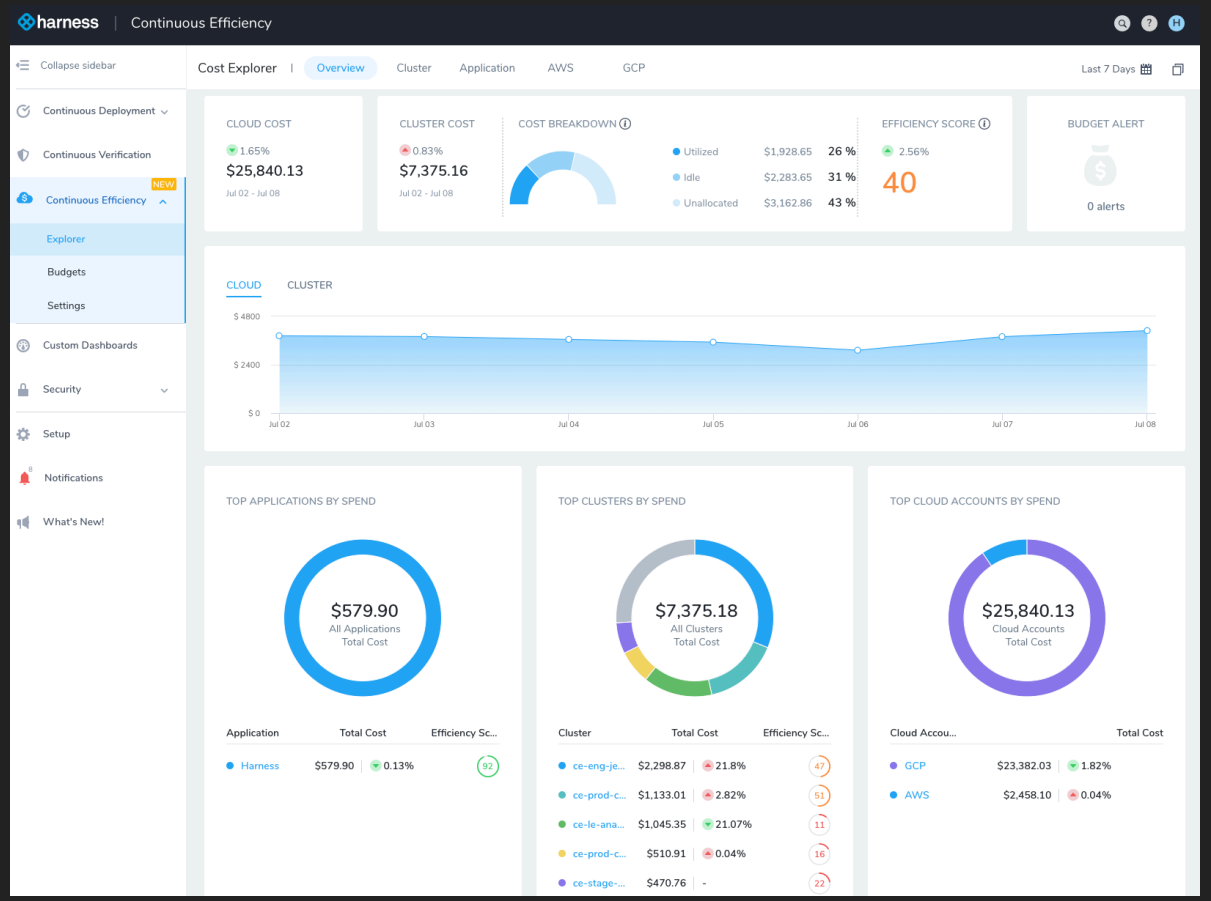
All Engineering teams and environments (prod and non-prod) have budgets which are tracked daily with forecasted spend and alerts.

All Engineers can correlate new software deployments with cloud spend. This allows them to identify cloud spend spikes in hours vs. days or weeks.

Engineering, Product and Finance meet every two weeks to review cloud spend so that increases are understood, and savings/optimizations are highlighted.

Engineers manage cost like they manage performance, quality and availability of the Harness SaaS Platform.

Request your demo of Harness Continuous Efficiency at harness.io



Follow us on:

/harnessio

/harnessinc

Contact us on:

www.harness.io