STATE OF THE CLOUD REPORT

CLOUD COMPUTING MANAGEMENT TRENDS IN 2019



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Cloud Computing Management Trends in 2019

Following are findings and analysis from the Densify annual Global Cloud Survey of IT Professionals for 2019. Key revelations include that 70% of respondents have actively deployed containers or plan to do so in the near future and that public cloud is the preferred option for container deployment. Surprisingly, Google Cloud is the clear winner in this adoption trend—growing in preference at 117% yearover-year—a much faster rate than that of Amazon Web Services (AWS) and Azure.

The data also reveals that organizations are adopting public cloud very aggressively. While application uptime, mitigating performance risks, and achieving cost efficiency are their primary concerns, respondents admit to not clearly understanding the impact of evolving public cloud technologies and features. The data reveals that, in many cases, adoption of new technologies such as containers are inadvertently introducing risks as organizations dive in without fully understanding potential impacts.

Highest Cloud Management Priority: Reducing Risk

When asked to rank their priorities for public cloud management, respondents overwhelmingly—to the tune of over 50%—cited mitigating operational risks and performance issues as their chief concern. Meeting the service delivery demands of the business is still first and foremost in the minds of cloud managers.

The second and close third priorities (for about 20% of respondents, each) are leveraging automation to select the optimal cloud instances and resources for each workload, and reduction and minimization of cloud spend.

A distant fourth priority (at only 6%) is cloud service bill analysis, financial reporting, and enabling chargebacks for cloud spend to specific lines of business—the domain of first-generation cloud optimization solutions. Modern infrastructure managers are primarily focused on solving the underlying problem—workload placement and its impact on risk and application availability—which leads to the symptoms addressed by these tools.



Rank your priorities across public cloud management practices

Densify

Growth in Public Cloud Investment has Continued

Respondent data revealed (unsurprisingly) continuing heavy investment in public cloud, with (surprisingly) organizations who identified as having some Google Cloud infrastructure growing over 115%, from 12% to over 25% of all respondents, compared with our data from 2018.

While Amazon Web Services and Microsoft Azure command a much larger public cloud market share than Google, organizations identifying as invested in AWS shrunk slightly from 65% to 58% year-over-year, while those with Microsoft Azure grew from 50% to 55%. Only 5% of respondents were not utilizing some form of public cloud.

On-premises, 33% of respondents reported having VMware infrastructure.



How much management visibility do you have over cloud workloads compared to within your on-premises data center?

Management Visibility into Public Cloud is Lacking

Despite the continued growth of public cloud infrastructure use among respondents, 45% reported needing better management visibility into their public cloud workloads (including when compared to their abilities to manage on-prem). This is troubling, as mitigating operational risks—where management visibility into workloads is a requirement—was overwhelmingly cited as the chief priority going into 2019.

This query also revealed interesting information about the makeup of respondent's clouds. Only 9% of the audience organizations are currently purely invested in public cloud—91% still rely on hybrid or pure on-prem infrastructure.



Which cloud provider(s) does your organization use? (select all that apply)



Most Organizations Haven't Yet Leveraged Automation for Cloud Management

Although using automation to select optimal cloud instances was ranked as the second priority for organizations, over 50% of respondents say they are not yet using automation, Al, or machine learning to manage their cloud infrastructure.

Without AI- or machine-learning-driven technology and automation, it is impossible to align application needs with the optimal cloud services. Heading into 2019, most organizations are not yet managing their clouds in a modern, best-practice-driven way.



Do you use any automation, AI, machine learning, or predictive analytics tools to optimize your cloud infrastructure?

Cloud Manager Expertise has Kept Pace as Cloud Service Offering Evolve

In 2018, 50% of respondents admitted to being unable to keep up with and understand the impact of new cloud provider service introductions and billing option changes. This number has decreased by nearly 15% in our latest survey, but over one-third of organizations are still unable to keep pace.

In the last year, cloud providers have made significant efforts to better educate the market as their services have changed, and this investment is paying off. Better visibility and education is having a measurable impact, but with only one-third of respondents actively automating cloud resource management and using predictive analytics, comprehensive organizational understanding of cloud provider offerings is delivering only partial payoff.



As an organization, how well do you understand the impact of cloud providers' new service introductions and billing changes on your business?



Organizations Believe They Have a Handle on Cloud Resource Management—Even When They Don't

Even though most organizations have not yet employed AI and machine learning to perfect and automate cloud resource selection, and over onethird of respondents cited an inability to keep up with public cloud provider service changes, 40% of respondents still believe they are successfully able to assess if they are purchasing the right instances for their workloads at the lowest costs.

The data appears to reveal at least a partial disconnect between what cloud operations teams may believe about their ability to manage resources successfully and the possible measured outcomes of their efforts. And, without modern AI- and machinelearning-powered cloud resource analytics and management, it is impossible to determine by how far their beliefs and actual results may be diverging.



How well are you able to assess if your organization is buying the right cloud services for your workloads in a cost-effective manner?

Learn More about Cloud Resource Automation

Third-party Technical Review: how to achieve Optimized Cloud Automation with Densify

Read The Report:

https://www.densify.com/resources/analyst-reportbroadband-testing-cloud-optimisation-automation

45% of Respondents Are Breaking Their Cloud Spend Budgets

About 22% of respondents ranked cloud spending reduction as their top priority for public cloud management in 2019, and when asked how much they were spending relative to what they had budgeted against cloud infrastructure, 45% admitted they were overspending, with 20% breaking their budget with over 20% cost overruns.

Compared to 2018, more people were aware of their cloud spend—68% vs 58%, even as cost optimization lagged behind other cloud management concerns for most.



How much are you spending relative to what you've budgeted for your cloud infrastructure?



Organizations Are Aware Optimization Can Reveal Big Savings in Their Public Clouds

When asked how much public cloud savings proper automation could enable annually, over half of respondents believed savings of 10% or greater could be achieved. Those that believed they could save up to 25% grew by 18%, and those that believed they could achieve up to 50% savings grew by 75% compared to 2018—showing that awareness of the ability to find major cloud savings through proper optimization and management is growing across the industry.



With proper optimization, how much do you think your organization could save annually on cloud costs?

Dive Deep on Cloud Resource Cost Management

How eSentire Achieves Cost Optimization for Public Cloud with Densify

Watch the video case study

https://www.densify.com/resources/video-esentirepublic-cloud-workload-cost-optimization

Container Adoption is Now Mainstream

The year of containers has arrived! More than 70% of respondents have either deployed containers fully or



What are your plans for running containerized apps in production?

plan to in the next two years, with over 50% planning to run containerized apps in 2019.

Understand Container Resource Management

Optimization for Container Platforms

See how to maximize your container enviroment

https://www.densify.com/service/technologies/ container-optimization



Methodology

This annual survey was conducted by Densify in December 2018 and released in January 2019. The survey was distributed via email to IT technical professionals from across a range of organization types and sizes. The over 500 respondents represent roles across the spectrum of cloud management, including 23% IT management and executives, 17% cloud and infrastructures, and the remaining 60%

> Avoid Risk, Automate Cloud Resource Management, & Optimize Costs

Densify addresses the top three cloud management priorities for organizations in 2019.

Get a demo at: <u>www.densify.com/demo</u>

