

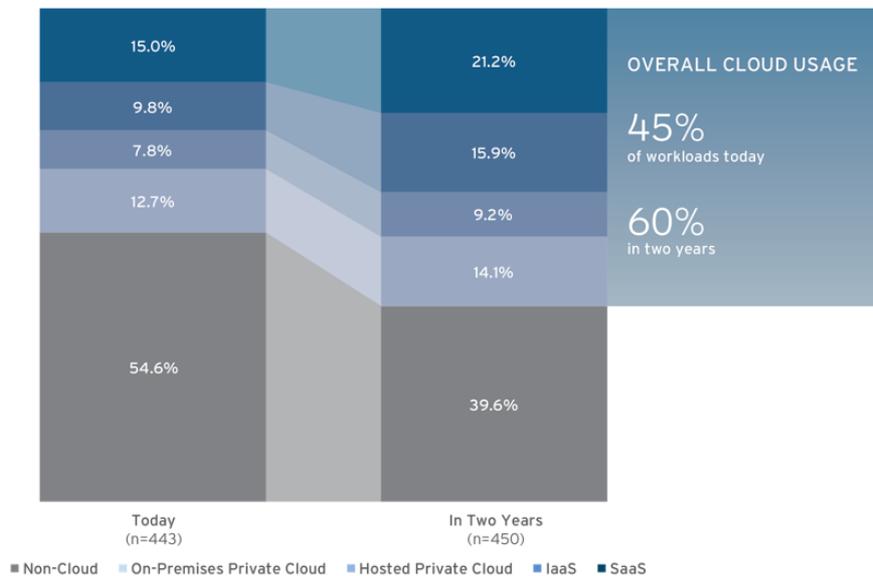
451 Research: 69% of enterprises will have multi-cloud/hybrid IT environments by 2019, but greater choice brings excessive complexity

With AWS adding 53,000 SKUs in the last two weeks, analysts predict the rise of cloud dealers with simple, fixed-price offerings aimed at untangling this complexity

New York and Las Vegas, November 27, 2017 -- At [AWS re:Invent](#), [451 Research](#) is revealing how quickly enterprises are moving to hybrid and multi-cloud environments; the growth of the cloud market to \$53.3 billion in 2021 from \$28.1 billion this year; and the impact of cloud service providers' ever-expanding portfolio of offerings.

451 Research's most recent [Voice of the Enterprise: Cloud Transformation survey](#) finds that cloud is now mainstream with 90% of organizations surveyed using some type of cloud service. Moreover, analysts expect 60% of workloads to be running in some form of hosted cloud service by 2019, up from 45% today. This represents a pivot from DIY owned and operated to cloud or hosted third-party IT services.

Percent of Workloads Running in Cloud



Q11. Thinking of all the applications your organization runs, what percentage are currently running in the following environments?

Q12. Thinking of all the applications your organization runs, what percentage will be running in the following environments two years from now?

Source: 451 Research, Voice of the Enterprise: Cloud Transformation, Workloads and Key Projects 2017

451 Research finds that the future of IT is multi-cloud and hybrid with 69% of respondents planning to have some type of multi-cloud environment by 2019.

The growth in multi- and hybrid cloud will make optimizing and analyzing cloud expenditure increasingly difficult. 451 Research's Digital Economics Unit has [analyzed](#) the scope of AWS offerings and reveals that there are already over 320,000 SKUs in the cloud provider's portfolio. This complexity is likely to increase over time – in the first two weeks of November 2017, for example, AWS added more than 53,000 new SKUs.

“Cloud buyers have access to more capabilities than ever before, but the result is greater complexity. It is a nightmare for enterprises to calculate the cost of computing using a single cloud provider, let alone comparing providers or planning a multi-cloud strategy,” said Dr. Owen Rogers, Research Director at 451 Research. “The cloud was supposed to be a simple utility like electricity, but new innovations and new pricing models, such as AWS Reserved Instances, mean the IT landscape is more complex than ever.”

Flexibility has become the new pricing battleground over the past three months, with Google, Microsoft and Oracle all [announcing](#) new pricing models targeted at AWS. Analysts believe there will be a market opportunity for cloud

dealers that can resolve this complexity, giving users simple and low-cost prices – similar to how consumer energy suppliers abstract away the complexity of global energy markets.

451 Research's quarterly [Cloud Price Index](#) continues to track the global cost of public and private clouds from over 50 cloud providers.

Cloud market growth

The latest data from [451 Research's Market Monitor](#) finds that the cloud computing as a service market is expected to grow 27% to \$28.1 billion in 2017 compared to 2016. With a five-year CAGR of 19%, cloud computing as a service will reach \$53.3 billion in 2021.

The report examines revenue generated by 451 global cloud service providers across infrastructure as a service (IaaS) and platform as a service (PaaS), as well as infrastructure software as a service (ISaaS), which includes IT management as a service and SaaS storage (online backup/recovery and cloud archiving).

The report predicts that IaaS will account for 57% of cloud computing as a service revenue in 2017.

451 Research analysts forecast that ISaaS will see the fastest growth through 2021 with a 21% CAGR, while Integration PaaS will be the fastest growth sector within the PaaS marketplace with a five-year CAGR of 27%.

Cloud Computing 'as a Service' Revenue (\$bn)



Source: 451 Research's Market Monitor: Cloud Computing, November 2017



About 451 Research

451 Research is a preeminent information technology research and advisory company. With a core focus on technology innovation and market disruption, we provide essential insight for leaders of the digital economy. More than 100 analysts and consultants deliver that insight via syndicated research, advisory services and live events to more than 1,000 client organizations in North America, Europe and around the world. Founded in 2000 and headquartered in New York, 451 Research is a division of The 451 Group.

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