# Unlocking Cloud-Based Data & Analytics with Professional Services

The 451 Take

For years, it's been apparent that data and analytics workloads would be among the last to move to cloud because of the performance overhead, the costs of data ingress and egress, data rationalization efforts, and the associated management challenges. However, 451 Research data shows that such workloads are now making the shift to public cloud. The use of IaaS and SaaS as the preferred venue for data and analytics workloads is expected to shift from 31% of organizations today to more than 56% over the next two years. At the same time, the use of traditional on-premises venues is in rapid decline – to 22% in 2023 from 54% today.

The shift to cloud-native development is the principal motion versus the use of other venues. The continued shift of analytics and business intelligence functions to public cloud reflects the increased use of data-driven decision-making and improvements in data culture as the basis for success in the digital economy. However, there is no easy button for this class of application workload. To be successful, organizations should strategically assess their current data sources; consequently, these transitions may require the use of managed services to support unique individual circumstances.

Primary Data Processing, Analytics and Business Intelligence Environments
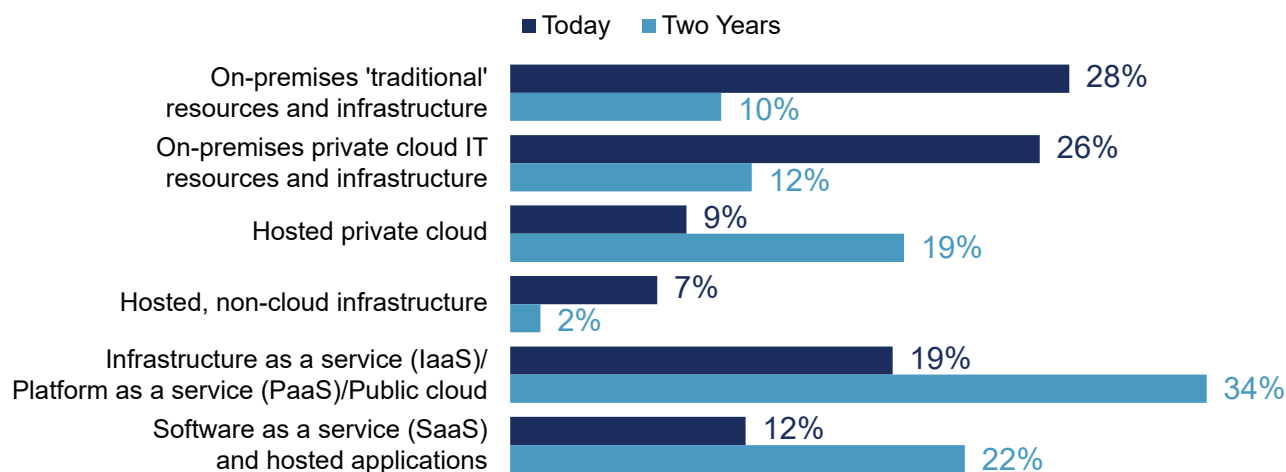
Q: Which of the following best describes the primary environment used to operate your organization's data processing, analytics and business intelligence? In two years?

Base: Organizations with data processing, analytics, business intelligence (n=69)

Source: 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads & Key Projects 2021

The 451 Research data reflects the shift to public cloud platforms, and at the same time, it anticipates a substantially increased need for professional services to move these workloads to the public cloud. Moreover, not only are data and analytics workloads moving rapidly to the public cloud, but 451 Research data shows that the majority of enterprises are using professional services to create these applications.

Data from 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads & Key Projects 2021 found that for almost two-thirds of enterprises, the majority of application development is already done outside of the organization's own software development resources. With access to talent now more of a constraint than access to capital, partners that can bring skills and certifications, value-added services and specialist knowledge to fill expertise gaps are more important than ever. But enterprises are not only seeking help to migrate to public cloud; 29.7% of organizations use managed services to manage applications deployed on the public cloud (e.g., patching, backup/recovery, security and compliance, according to the 451 Research survey.

Business Impact

Taking the next set of applications to the cloud. Many enterprises have already picked the low-hanging fruit of cloud transformation; HR, CRM, sales and productivity suites have largely moved to subscriptions and SaaS. The next phase is those applications and workloads that were deemed too challenging, including data and analytics, where on-premises venues have been the default for performance and cost.

Shared responsibility. Putting some of the responsibility in the hands of a strategic partner can lessen an organization's burden and address the operational challenges of adopting public cloud. This includes cloud management and orchestration, security, compliance, cost control, as well as the migration and integration of applications and data, especially for complex data and analytics workloads.

Unlocking the power of data. Increasingly deployed in the public cloud, data stores (data warehouses, data lakes, etc.) are now established as a key component of enterprise data platforms that support analytics and data science initiatives. Pairing these vast data stores with the seemingly unlimited compute power of the public cloud enables businesses to make critical, data-driven decisions in real time. With cloud-native technologies having a growing influence over data and analytics workloads, strategic partners are an increasingly important consideration. Skilled partners can help synthesize disparate data stores by connecting diverse datasets with analytics and machine learning tools to run scalable, mission-critical workloads with data architectures that reduce security risks, ensure compliance and meet data governance requirements.

Finding the right mix. Decomposing complicated data and analytics applications by carving away functional blocks that can be maintained independently is challenging. The greater the complexity, the greater the value in making this transformation, yet the unpredictability of the time and expense required has prevented many organizations from moving forward. Figuring out the best execution venue for data and analytics workloads is no small feat. While some workloads and applications may be considered cloud-ready for a relatively straightforward lift-and-shift migration, they can usually benefit from refactoring, rearchitecting or re-platforming based on a thorough assessment of usage patterns. Working with specialists can increase the chance of success and shorten the time to value.

Looking Ahead

With the accelerated pace of cloud adoption and the plethora of new cloud services that hyperscalers offer, enterprises are encouraged to 'go faster' in their migrations to public cloud to gain the benefits of agility, scale and lower operating costs. However, complexity, technical debt, organizational inertia and choosing the 'best' path forward can all inhibit such transformation. After selecting the right public cloud infrastructure, organizations need to manage the migration and implement guardrails to rein in cloud spending. It is important to architect a cloud-based data and analytics strategy that meets the business requirements and integrates with existing and planned software applications.

Between open source tools, proprietary software packages and public cloud-native services, data and analytics options are vast and broadly comparable in terms of capability, so choosing can be daunting. The key is to find the right combination to deliver the advertised benefits. Managed service partners with application development and enterprise data expertise can likely help.

We believe even the most data-driven companies can gain more from their existing investments in data and analytics. However, current conditions are accelerating the divide between those that are investing to grow their data and analytics initiatives and those that risk being left behind. Data processing and analytics are essential to gaining a unified view of the customer while customer experience decisions are driven with real-time data. Partners with experience in data security and compliance and trained cloud specialists can assist with the development, delivery and management of data and analytics applications and workloads on public cloud, helping enterprises scale, modernize and innovate without expensive hiring or training.