451 Research

S&P Global
Market Intelligence

Improved experience, enhanced productivity, cost reduction drive application modernization — Highlights from VotE: Cloud, Hosting & Managed Services

Analysts - Melanie Posey, Michael Nocerino, Jean Atelsek

Publication date: Monday, August 28 2023

Introduction

451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Application Modernization 2023 survey reveals continued progress on application modernization plans despite (and to some extent, because of) ongoing macroeconomic uncertainty. IT operating cost reduction remains a key driver, but improvement of the customer experience rises to the top of the list this year. This tracks with other survey research indicating intensified focus on driving business value from application modernization and cloud transformation.

This survey was fielded from May 2 through June 23, 2023, with a panel of 834 IT decision-makers, 594 of whom are at organizations executing on or planning for application modernization. This survey examines the drivers and inhibitors for app modernization, strategies for doing the work, likely partners in the effort, the pace of modernization efforts during the past year and the technologies enlisted to make the transition.

The Take

Application modernization involves refactoring or repurposing monolithic applications to function in more flexible cloud-native environments, with the objective of making application stacks (and the underlying infrastructure) more responsive to changing business requirements. Independent software vendors (ISVs) increasingly participate in the application modernization process, emerging as organizations' go-to providers for third-party advisory and managed services. As organizations become more mature in their use of cloud and take better advantage of new services and architectures, other benefits follow, such as improved alignment among various organizational stakeholders, including IT operations, application developers and business operations.

Summary of findings

Application modernization efforts continue, and spending is set to increase despite economic uncertainty. Nearly one-third of organizations report significant progress toward their application modernization goals, and 13% (particularly those in the software/IT services segment) claim to have completed their application modernization journeys. A majority (51%) of organizations say that spending on these efforts will increase even if current economic conditions persist, including those that have completed the process or have made significant progress, which underscores the notion that modernization has no fixed endpoint. Smaller organizations are especially keen on continued investment, as 58% of organizations with fewer than 1,000 employees say their spending will increase, compared with 48% of organizations with more than 1,000 employees. Likewise, 57% of companies with less than $1 billion in revenue say their spending will increase, while only 37% of companies with more than $1 billion in revenue say the same.

Improving productivity and reducing IT costs remain prominent drivers. Top drivers for modernizing applications are more evenly distributed in this year's survey, indicating that organizations may be trying to tackle multiple initiatives at the same time. Improving customer experience (35%) emerges as the top driver, followed closely by the desire to improve developer/IT operations productivity (34%) and reducing ITOps costs (33%). Last year's top driver, improving app performance/reliability (32%), has fallen back a little, but remains important. Interestingly, smaller organizations (those with fewer than 1,000 employees) are driven most by improving the customer experience (37%), while larger organizations (more than 1,000 employees) see improving developer/IT operations productivity (39%) as most important.

Organizations are prioritizing customer-facing processes for application modernization. It is no surprise that customer experience (the low-hanging fruit of digital transformation) emerges as a top driver for application modernization when 35% of organizations point to customer-facing processes as the main focus of their efforts. Data analytics and business intelligence processes (25%) and back-end processes (23%) place lower on the list, but are top priorities for organizations in healthcare and manufacturing, respectively. Organizations place the least focus on employee-facing processes (17%), likely due to reliance on SaaS productivity and collaboration offerings.

Hybrid cloud is top venue for modernized applications. Hybrid (on-premises/public cloud) emerges as the top IT runtime environment for the aggregated total of the four workload types highlighted in this survey (44%), followed by on-premises private cloud-only (37%) and public cloud-only (19%). Hybrid emerges as the top venue for all but one workload category — back-end processes — where on-premises private cloud (40%) edges out hybrid as the preferred production environment.

Containers are preferred for both net-new and modernized workloads, but virtual machines are also favored. For modernized workloads, respondents are split evenly in terms of whether they primarily package them on cloud instance containers (31%), directly on VMs (30%), or on containers on or inside VMs (29%); the familiarity, manageability and isolation of VMs still appeal to IT teams modernizing their applications. Net-new workloads are less likely to be deployed directly on VMs (23%) than on containers on or inside VMs (34%) or on cloud-based containers (32%). Only about 10% of IT decision-makers primarily run modern workloads on bare-metal servers, which offer dedicated compute resources and greater customizability but have higher management overhead.

Close collaboration between IT operations and app developers increases in line with cloud maturity. More than half of organizations in the broad implementation stage of cloud maturity report that their ITOps and application development teams cooperate closely throughout the application modernization process. By contrast, nearly 40% of organization in the pre-implementation phase of cloud maturity state that their ITOps and app development teams are siloed. The degree of ITOps and application development alignment (or lack thereof) is a determining factor in the overall success rate for application modernization projects. Among organizations with application modernization project failure rates of less than 50%, more than 40% are those in which the two teams cooperate closely. By contrast, among those with project failure rates of more than 50%, close to half of these organizations have ITOps and app development teams that are siloed or in conflict with each other.

Third-party assistance is still a major part of the modernization process. Similar to the result reported in last year's survey, 95% of organizations working on application modernization are willing to seek assistance from outside providers. Organizations currently favor the vendors of the software being modernized (48%), as well as vendors of related software (45%). Systems integrators remain a key resource for third-party application modernization assistance, but the findings suggest that organizations are now more willing to go to the source and take a more app-centric approach by working directly with the ISVs and their partner ecosystems. As noted in last year's report, ISVs are enhancing their offers with their own cloud-based platforms and managed services for common workloads such as databases, AI/machine learning and analytics, providing easier on-ramps to modernized architectures.