

App modernization accelerates, with cost reduction as a prominent driver – Highlights from VotE: Cloud, Hosting & Managed Services

Analysts - Jean Atelsek, Melanie Posey

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Introduction

Data from 451 Research's [Voice of the Enterprise: Cloud, Hosting & Managed Services, Application Modernization 2022](#) survey reveals that once organizations get started on app modernization, a flywheel of momentum comes into play. Belt-tightening due to macroeconomic conditions has made cost reduction more pressing as a motivator, and modernizers are focusing more on customer-facing components than on less-tractable back-end systems.

Fielded Sept. 22-Oct. 28, 2022, among a panel of 698 IT decision-makers, 594 of whom were at organizations executing on or planning for application modernization, this survey examines the drivers and inhibitors of app modernization, strategies for doing the work, likely partners in the effort, whether modernization initiatives have sped up or slowed down in the past year, and which technologies will be enlisted to make the transition.

The Take

Application modernization means different things to different people, but a universal goal is to bring systems into a realm where IT resources are more responsive to business needs. With ever-shifting market foundations — a steady stream of new hyperscaler services, updated hardware consumption models, and a zesty mix of open-source and commercial software novelties — undertaking this work can be intimidating. While, on a large scale, the transition is still in its early days, for many organizations the hazard of *not* updating IT development and operations is beginning to outweigh

the cost of doing so. Whether to address skills shortages or keep up with more nimble competition, undertaking this work is no longer a matter of if, but when.

Summary of findings

App modernization efforts have accelerated over the past year. Most respondents (59%) at organizations with application modernization plans in progress report that the activity has intensified over the past 12 months, with almost 20% saying it has "significantly accelerated." In contrast, only 6% say the pace of work has slowed or stopped. Macroeconomic inflation — and the big providers' moves to keep cloud infrastructure prices low to attract more workloads (as well as an emphasis on cost-optimization tools and processes) — plays a role here, as evidenced by the fact that reducing IT operating costs has moved up in rank as a driver.

Cost reduction is becoming a more prominent driver. The top five drivers for modernizing applications are akin to those identified in [a similar survey a year ago](#), but the ranking has undergone some change. Overall efficiency and the desire to improve application performance, reliability and scalability remains the top driver. This year, however, the goal of reducing operating costs moved up a notch, from third to second, followed by the push to improve the front-end customer experience and implementation of organization-wide data strategies. Improving efficiency for back-end business processes, ranked second in 2021, fell to fifth; this drop may reflect a realization that stalwart legacy IT resources (such as mainframes and enterprise databases) are themselves evolving to adapt to more modern application architectures, and many are not as amenable to modernization as front-end components.

Business priorities are driving enterprise modernization strategies. Of the 90% of respondents currently working on app modernization, more than half (46% of the total) are doing so selectively according to strategic business priorities. IT buyers have largely moved beyond the onesie-twowie progress of ad hoc initiatives championed by line-of-business owners — only 16% of respondents cite this as their approach. A larger share (19%) are going all in by modernizing their entire application portfolio, a strategy especially favored by respondents in the software/IT services and finance sectors, which are among the verticals furthest ahead in executing on digital transformation strategies. Smaller companies, in terms of revenue or headcount, are most likely to have no plans to modernize their applications.

Public cloud, microservices and artificial intelligence/machine learning are key enabling technologies. Respondents who are modernizing see public cloud infrastructure, including platform as a service, as the top technology contributing to their efforts (cited by 56%). One reason for this is that public clouds are key venues for the other technologies identified, including microservices (43%), AI/ML (36%) and serverless databases (29%). Lower on the list are function as a service (aka serverless compute — 23%), observability (21%) and service mesh (16%). We see a growing aversion to self-management of infrastructure for net-new and refactored applications, which is being matched by expanded cloud offerings that shoulder the operational burden with packaged, pre-integrated services for prevalent types of IT workloads, such as databases, containers, analytics, AI/ML training and inferencing, and development environments.

The vast majority of modernizers are reaching out to third parties for assistance. Almost 94% of organizations working on app modernization are seeking assistance or services from outside providers to help in the effort. There is no shortage of vendors offering such support — global systems integrators, public cloud providers, and software and system vendors are all in the mix — and customers will rely on multiple parties to make the transition. In an IT world where more resources than ever are available as a service, software acumen dominates: Respondents are most likely to enlist vendors of the software/application being modernized (42%). Systems integrators or consultants (42%), which topped the list in 2021, are next, followed by services partners of the

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application vendor (38%). Public cloud infrastructure providers (34%) and hardware vendors (30%) are also well represented — hardware vendors have moved up in rank since 2021's survey and are more likely to be favored by manufacturing buyers.