

Application Modernization Initiatives Garner a Growing Share of IT Budgets

New IDG survey sheds light on how organizations prioritize investments.

Where you are on the application modernization journey influences what you expect the outcomes to be and the challenges you face, according to a new IDG Research study conducted in partnership with VMware.

The survey of 106 IT decision-makers, which was fielded in September 2020, found that businesses of all sizes across a wide spectrum of industries are making IT modernization a priority but that many are still in the early stages of the process. Two-thirds of the decision-makers have either started implementing technology to support IT modernization or are past the initial implementation stage.

Application modernization is the process of deriving new value from existing applications by updating them with modern features and capabilities, many of which are inspired by cloud computing. Strategies can range from basic replatforming or rehosting to full-scale replacement of legacy systems.

The research indicated that IT and business leaders are making significant investments in modernization but are struggling with setting priorities and determining how to begin the process. Their expectations, challenges, and budget decisions also shift as they proceed along the journey.

Modernization Priorities

The top objectives of modernization projects that respondents identified are:

- 1 Improving performance and flexibility
- 2 Hardening security
- 3 Achieving compliance

It is notable that 'improved cost efficiency,' which is sometimes touted as a principal benefit of modernization, was seen as a somewhat lower priority, with only one-third of the respondents citing it.

As companies gain experience with modernization, their priorities shift from soft benefits such as agility to hard payoffs such as speed and security.

This is evident when responses are broken down by the respondents' stage on the adoption curve. For example, survey participants whose organization was higher up on the adoption curve cited flexibility and improved performance as goals to a much higher degree than their peers whose organization was farther down the adoption curve. They also are much more intent on improving security. In contrast, late adopters are primarily in pursuit of application manageability and shorter time to market.

Modernization is sometimes regarded as being synonymous with moving applications to the cloud, but the survey results show that more than two-thirds of respondents' IT infrastructure is still deployed on-premises or in colocation centers.

However, the results also suggest that modernization projects favor cloud migration. Companies that are well along the modernization journey reported that 42% of their infrastructure is cloud-based, compared to 32% of those that are earlier in the process.

There is evidence that the laggards will catch up, though. Organizations in the planning stages are allocating 38% of their IT budget to modernization, compared to 28% for those farther along the adoption curve. This suggests that modernization budgets are weighted toward early-stage investments in infrastructure and management tools and that costs decline over time.

Allocating the Modernization Budget

When it comes to how money is spent, IT is firmly in control: 65% of the respondents reported that IT owns all or most of the modernization budget. Just 1% said the project is driven primarily by the line of business. One striking finding is that 83% of organizations in the later stages of modernization have ceded most or all budget responsibility to IT, compared to just 17% of those in the early stages. This indicates that the modernization effort is more collaborative early on, with IT taking the reins as goals and priorities are established.

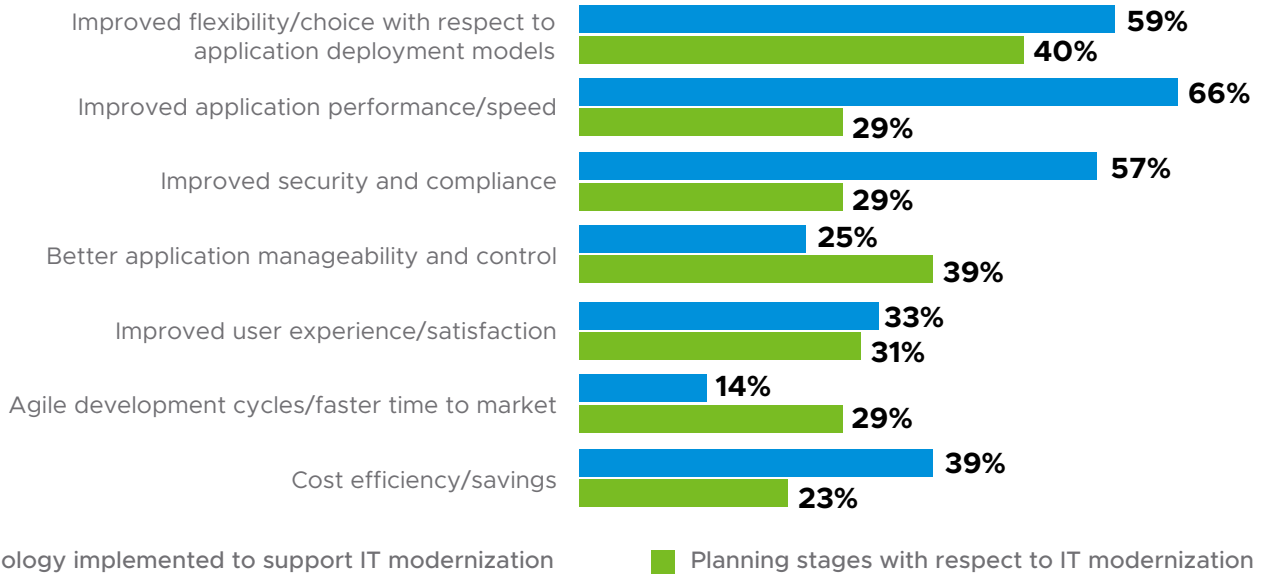
Across all respondents, the top investment priorities are modernizing on-premises applications, increasing automation, beefing up security, and utilizing managed services. Other priorities include upgrading infrastructure and adopting a hybrid cloud strategy.

Here again, though, there are significant differences between the stages in the modernization journey. Early adopters are much more likely to emphasize the top four priorities noted above, in some cases by more than a 2-to-1 margin, than their less advanced peers. In contrast, late adopters focus more on upgrading infrastructure, implementing disaster recovery, and unifying management for consistency.

These priorities are appropriate early steps for any company planning to modernize, according to Rick Walsworth of VMware's Cloud Foundation product team.

Better application manageability and control and faster time to market appear to be greater motivators for IT modernization investments in the beginning stages.

Objectives Motivating IT Modernization Investment Decisions (select three)



Source: IDG, 2020

“It’s like pouring the foundation before building a house,” he says. “You want to be sure you have the flexibility to support the kind of workloads you’ll be running three to five years out.”

Some notable differences in investment priorities are also evident by company size. For example, more than three times as many representatives of large companies as small ones cited managed services as a top priority. Many more large companies are also automating application deployment and investing in edge computing.

“Large organizations operate at scale, and one manual step slows them down,” says Walsworth. “In order to maintain that scale, they look for every opportunity to remove manual processes.”

That interest in operational efficiency translates as well to edge computing. “If you move the compute processing closer to the data source, you can filter the data at the edge, extracting the meaningful data and sending outcomes to the data center. You move faster,” he says.

Small companies, in contrast, are putting more resources toward modernizing on-premises applications, adopting hybrid clouds, and unifying management. These differences could be explained by the broader scope of large companies, which have more infrastructure to manage and are more likely to be initiating edge strategies. A unified hybrid cloud platform built on consistent infrastructure and operations is key to making it possible to meet these broad and diverse goals.

Top Challenges

Regardless of organizational profile, the most pressing challenge among decision-makers as a group is the need for new skills—an unsurprising finding, given that modernized portfolios are more likely to use new cloud constructs. Data privacy and security concerns rank next-highest on the list, reflecting a common (although perhaps somewhat outdated) view of cloud infrastructure as insecure.

Leaders in an IT modernization effort “can get so focused on foundational elements like infrastructure and management that, in the early stages, they may not place enough focus on issues such as security and privacy,” Walsworth says.

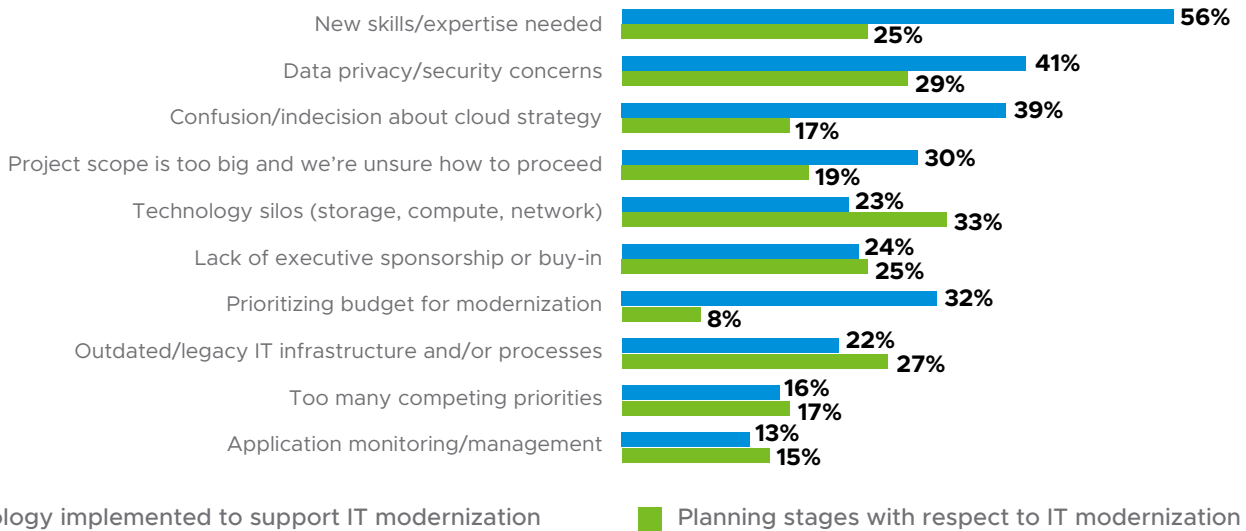
Security concerns may be a function of lack of familiarity with multitenant workloads in which multiple companies share the same physical infrastructure.

“You need to have intrinsic security built in at each layer of the stack,” Walsworth says. “You have to be able to isolate workloads and provide the right level of intrusion protection at every layer—enabling the security posture to follow the workload, independent of its environment.”

The third- and the fourth-most-cited items also relate to uncertainty: confusion about cloud strategy and lack of clarity about how to proceed.

Top challenges appear to intensify as IT modernization initiatives progress.

Most Pressing Challenges in Supporting IT Modernization (select three)



Source: IDG, 2020

Challenges appear to become more formidable over time. For example, more than twice as many respondents from advanced companies cited skills as a problem as their less experienced counterparts. They also indicated greater confusion about cloud strategy, privacy, security, and budget priorities.

A possible reason why challenges mount as a project proceeds is that familiarity breeds concern. As organizations move along the adoption curve, the lack of skills becomes more evident. They may also discover that privacy and security concerns are more complex than they had expected. And their higher levels of confusion about cloud strategy may indicate that moving away from on-premises infrastructure is not as simple a decision as they had initially expected. This suggests that organizations that are just beginning the modernization journey should consult with advisors and their peers who are farther along in the process to get a realistic picture of what's involved.

Conclusions

The research leaves little doubt that application modernization is a priority, with an overwhelming number of respondents being at least in the planning stages. However, it appears that organizations are proceeding down the modernization path with some uncertainty and encountering unexpected challenges along the way.

Objectives, challenges, and perceived benefits also change as projects proceed. Investments at the front end focus on unifying IT silos, putting cloud deployment plans in place, and upgrading infrastructure to enable modernization. As companies gain more experience, they direct their budget dollars toward accelerating their efforts, putting automation in place, and managing the IT environment more holistically.

Moving applications to the cloud appears to correlate with modernization maturity, but the public cloud is not the goal, given that even advanced organizations have most of their infrastructure on-premises. Rather, IT leaders seek flexible infrastructure that enables them to shift workloads to the most appropriate infrastructure. This ability to run anywhere enables the business agility that is often cited as the chief benefit of digital transformation. Purposeful IT investments made with a long-term view will keep this goal at the forefront. The journey to a modern application portfolio is complex and challenging, but there's no question that IT leaders believe that it is worth the effort.

Want to learn more? VMware VP and CTO Kit Colbert explains the spectrum of application modernization options [here](#).