

The 451 Take

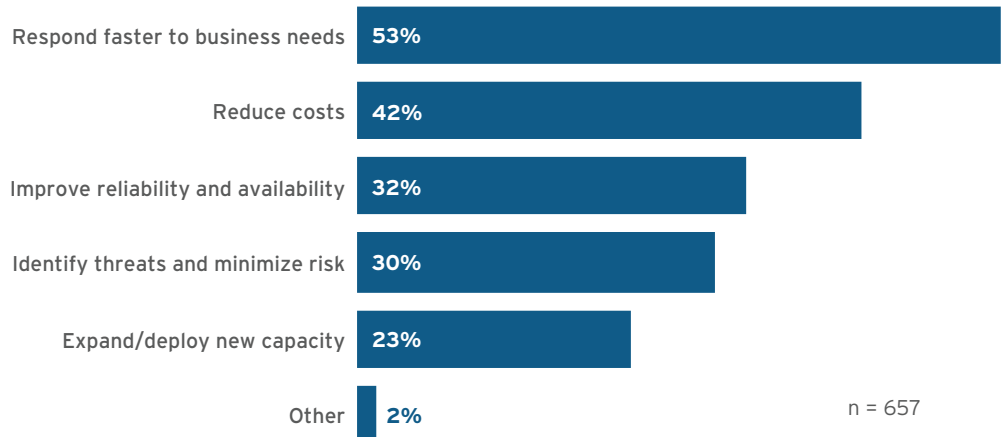
Beyond Speed: Enterprise CI/CD and DevOps

Today's enterprise demands a single platform that can address several critical requirements in software developer productivity – not just speed, but also adaptability, quality and security – to fully achieve CI/CD and DevOps success. That same single platform must also balance flexibility, often through open source and open standards, with opinionated guidance on dealing with the complexity of current enterprise infrastructure and applications.

Successful software releases and IT operations are about much more than just rollout speed. Respondents in our 451 Research Voice of the Enterprise: Cloud, Hosting and Managed Services, Budgets and Outlook 2017 survey indicated that responding faster to business needs and improving reliability and availability are two of the most important goals for organizations' IT environments (see figure).

Most Important IT Environment Goals

Q. What are the most important goals for your organization's IT environment over the next 12 months? Please select up to 2.



Source: 451 Research's Voice of the Enterprise: Cloud, Hosting and Managed Services, Budgets and Outlook 2017

Business Impact

TODAY'S ENTERPRISES FACE A GROWING CHALLENGE AROUND USING THE RIGHT SOFTWARE COMPONENTS AND INFRASTRUCTURE for faster application releases, while still maintaining adaptability and the ability to respond quickly and effectively to both technical issues and marketplace changes.

AMID FASTER RELEASE CYCLES, ORGANIZATIONS MUST ALSO PRIORITIZE SOFTWARE QUALITY to avoid risk and reduce rework headaches, which can be a significant challenge given the myriad of software components and infrastructure options for running applications.

EVEN WITHIN SECURITY, THERE ARE VARIOUS DRIVERS, REQUIREMENTS AND DEMANDS among large enterprise organizations, including monitoring, securing networks, securing the cloud and security analytics.

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Business Impact Brief

Looking Ahead

Choosing a cloud-native platform may help enterprise DevOps teams speed up new roll-outs while maintaining adaptability, quality and security. Through automation, teams can create different deployment timelines (e.g., test and public). A more holistic approach to software releases can also help organizations produce a more consistent, repeatable process that addresses business concerns and provides a smoother path from testing and development to production deployment. In addition, a focus on adaptability, quality and security in software releases can also help organizations more effectively and efficiently pinpoint problems when they arise.

The task often boils down to using the right development methodology, software components and infrastructure. But organizations should also avoid tool sprawl, inefficient utilization and needless risk exposure from security threats. By leveraging test-driven development and incorporating the three tenets of adaptability, quality and security within the software release process, organizations stand to realize the greatest benefit from newer methodologies such as agile development, CI/CD and DevOps.

To be effectively iterative, enterprises must also leverage optimization methods such as feedback loops and value stream mapping. Feedback loops help different parts of the organization, such as developers and IT operators, work together more effectively through improved communication and leveraging the growing amount of data points from infrastructure, software changes, queries, sensors and other sources. Value stream mapping can help organizations prioritize value by sorting out what matters most to users or customers, and thus improve processes by better understanding challenges and bottlenecks throughout.

Today's enterprise organizations also want to avoid being ensnared by inflexible software or vendor lock-in, resulting in less-than-ideal toolsets and unnecessary costs. A happy medium can often be found by adopting prescriptive, opinionated tools that also encompass open source software and open standards. Platforms that deliver capabilities around productivity, efficiency and security have proved helpful to large teams successfully wading through the complexity of today's enterprise IT landscape.

According to our Voice of the Enterprise: Cloud Transformation, Vendor Evaluations 2017 study, 19% of organizations have agile development in broad implementation, while 27% do not have it in their plans – indicating that a high number of organizations are not adopting methodologies such as CI/CD and DevOps, and are therefore likely to stumble. Enterprises that fail to keep pace with the changing market dynamics will be left behind. When new technology and methodology arrive, the issues of adaptability, quality and security can get overlooked. Using a cloud-native platform that supports these key factors, in addition to release speed, can help position organizations for successful releases and better customer experiences.

Pivotal

To be competitive in a software-driven world requires a frictionless path to production. Modern enterprise development achieves this with a CI tool wired up to a modern platform, like Pivotal Cloud Foundry. This combination automates delivery pipelines and testing, allowing product teams to rapidly iterate and delight customers with a steady stream of new features. CI/CD also helps reduce the risk of releasing low-quality code and reduces mean time to recovery when failures do occur.