



SNAPSHOT INSIGHT

A developer's wish list for the modern age

Find out what The Register readers most want from their software development tools.

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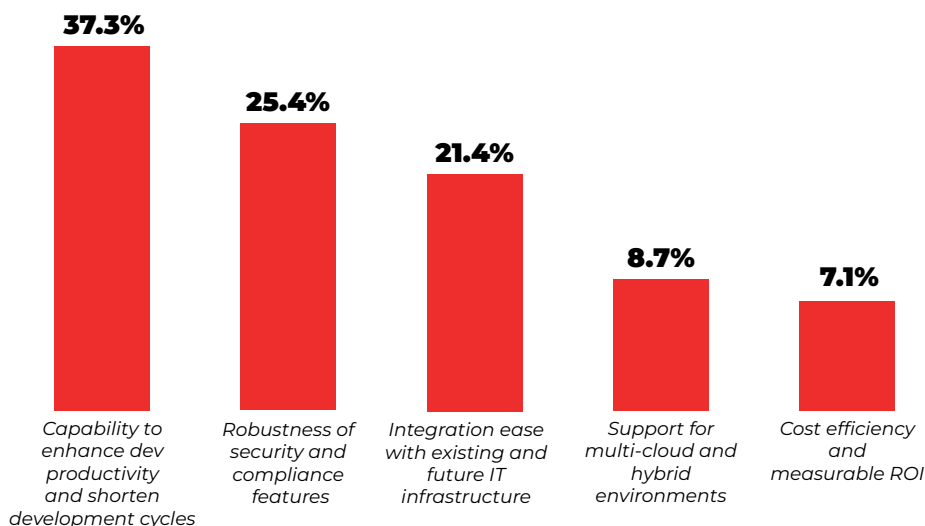
The software development process is often the lifeblood of the modern business. It drives innovation, helping companies improve internal operations while generating crucial revenue streams to maintain a competitive edge.

Choosing the right technology platform is essential to support this process and foster effective collaboration between software developers and IT teams. But what factors do organizations consider when selecting and provisioning the tools they use to achieve these goals? What improvements do they seek in their existing tech stack?

We polled 200 of The Register's readers to find out. These industry professionals represent a mix of hands-on IT staff and decision-makers responsible for adopting the systems, applications and services that underpin the technical systems of organizations worldwide.

When asked to identify their primary consideration when selecting technology solutions for enabling dev teams, over a third (37 percent) of the respondents cited the capability to enhance dev productivity and shorten development lifecycles. This is understandable – most organizations see the ability to build new products and services and quickly deliver them to end users as core to their business, particularly those who monetize these offerings through licenses and support.

Primary consideration when selecting technology solutions for enabling dev teams



Source: The Register

Ensuring robust data security and compliance is a primary consideration, reflected by the quarter (25 percent) of readers who identified it as the most important factor in their selection choice. Almost as many highlighted ease of integration with existing and future IT infrastructure as their top priority. However, fewer respondents were concerned with multi-cloud and hybrid environment support (9 percent) or cost efficiency and measurable ROI (7 percent).

37% consider the capability to enhance dev productivity and shorten development cycles as the primary consideration when selecting technology solutions.

The relatively low emphasis on multi-cloud and hybrid support may suggest that only a minority of respondents work for organizations engaged in software development that spans these environments, potentially due to the complexities of securely managing such setups. Similarly, the low priority given to cost efficiency and ROI might indicate that application development is considered too critical to underfund.

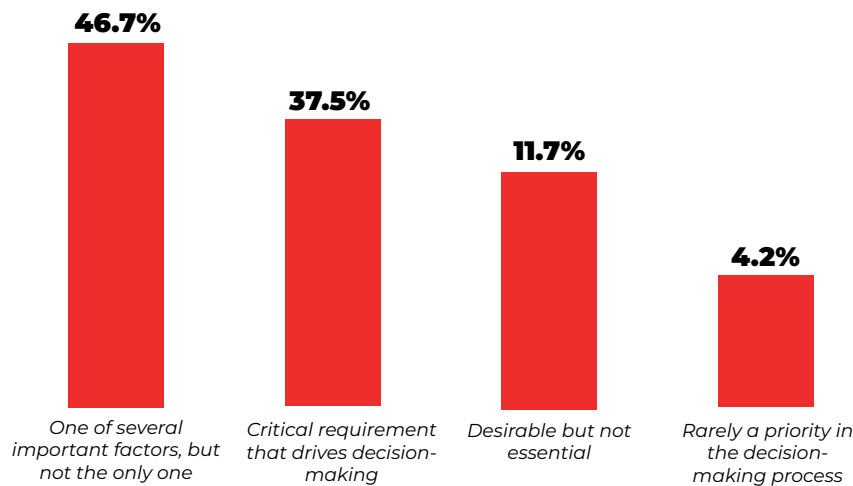
STRONG FOCUS ON DATA SECURITY

Security features represent an important or critical factor in the technology procurement process for

85%
of
organizations.

The high priority of data security is further reinforced by responses to our second question: 'How do you evaluate the impact of security features in your technology procurement process'? Nearly half (47 percent) identified security as one of several important factors, with over a third (38 percent) viewing it as a critical requirement that drives decision-making. Only 16 percent consider security features as either desirable but not essential (12 percent) or rarely a priority (4 percent). This highlights that for the vast majority (85 percent) of organizations, built-in security is a key consideration when choosing to buy applications, systems, or services.

Impact of security features in the technology procurement process

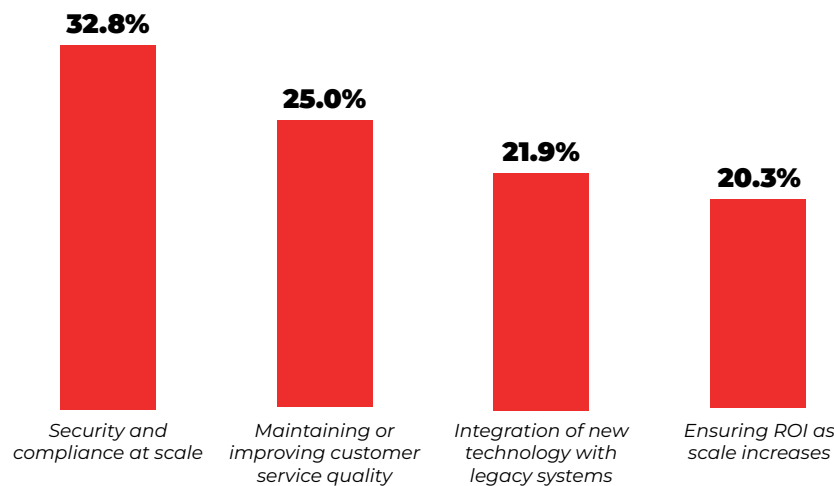


Source: The Register

However, embedding security and compliance into the development process is not without its challenges. A third (33 percent) of respondents reported that achieving security and compliance at scale is their top concern when scaling technology solutions. This suggests that without enhanced safeguarding of sensitive data alongside IT infrastructure expansion, businesses fear potential negative impacts on operations.

Other significant concerns included maintaining or improving customer service quality (25 percent) and ensuring ROI as scale increases (20 percent). Additionally, 22 percent of respondents highlighted the integration of new technology with legacy systems as a top concern, emphasizing the practical challenges involved in making sure new applications, systems and services work smoothly alongside the IT infrastructure already in place.

Top concerns related to business outcomes



Source: The Register

These findings mirror industry trends identified in separate research. Over a third of respondents to the 2024 Docker State of Application Development Report also rated security related tasks as 'difficult' or 'very difficult'. That's a burden which will only get heavier as the number of applications under development expands and more individuals within the organization get involved, including those at the back-end, the front-end and the full stack.

The parallel requirement to maintain or improve customer service quality while managing that growing security overhead is another challenge, as is the introduction of new technologies and systems designed to enhance automation levels to improve productivity.

Enterprise adoption of artificial intelligence (AI) continues to grow apace. But the incorporation of AI-enabled applications and workloads into the development process can put significant strain on existing IT infrastructure, the integration of which is often complex and time consuming. The 2024 Docker State of Application Development Report also found that 64 percent of developers are already using AI for work, underscoring the technology's penetration into the software development field.

All of these pressures combined are likely to result in increased costs in terms of bringing in additional skills and working hours. That could simultaneously make it harder to maintain ROI as the development output increases, a challenge also identified by The Register survey.

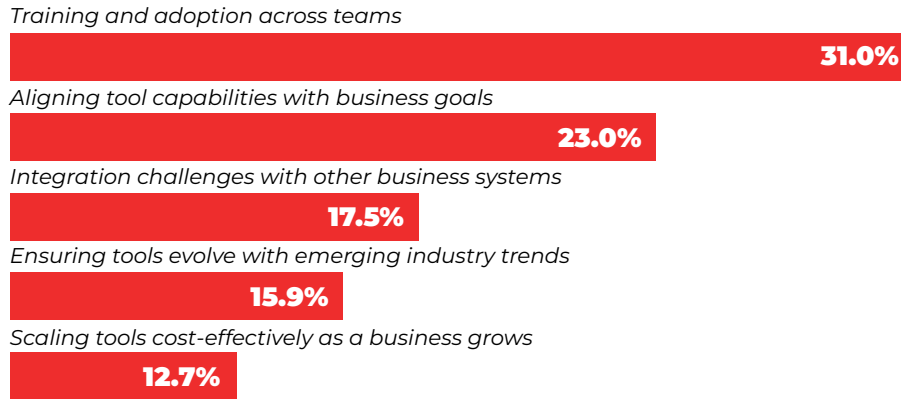
EXISTING DEV TOOLS AND PARTNERSHIPS MAY NEED UPGRADING

The challenges associated with existing development tools are evident, with training and adoption across teams identified as the biggest hurdle by nearly a third (31 percent) of the readers. This issue was more prominent than those related to aligning

Achieving security and compliance at scale is a top concern for a third of respondents.

tool capabilities with business goals (23 percent), integration challenges with other business systems (18 percent), evolving tools with industry trends (16 percent) and scaling tools cost-effectively as a business grows (13 percent).

Most significant challenge in current development tools from a business perspective



Source: The Register

The challenges are precisely what the DevOps movement aimed to address when it emerged in 2007. The survey results suggest that many organizations have yet to fully implement DevOps practices or are not realizing the expected benefits from their current tools. Sources like the 2024 Docker State of Application Development Report indicate that developers are increasingly shifting from monolithic to microservices-based development and leveraging cloud-native software practices.

The Register poll highlights specific technology improvements organizations seek to achieve in the next 12 months. Nearly a third of respondents (30 percent) want tools that directly increase operational efficiency, with almost as many (28 percent) seeking improved user experience for both customers and employees. Equally, 21 percent of respondents are looking for better real-time data analytics and decision-making capabilities, as well as greater automation in repetitive tasks.

Most sought improvements from technology solutions in the next year



Source: The Register

It's not just about improving the user experience – businesses want development tools that are easy to deploy across their organizations. A third (33 percent) of respondents

Training and adoption of development tools are a significant challenge for

31%

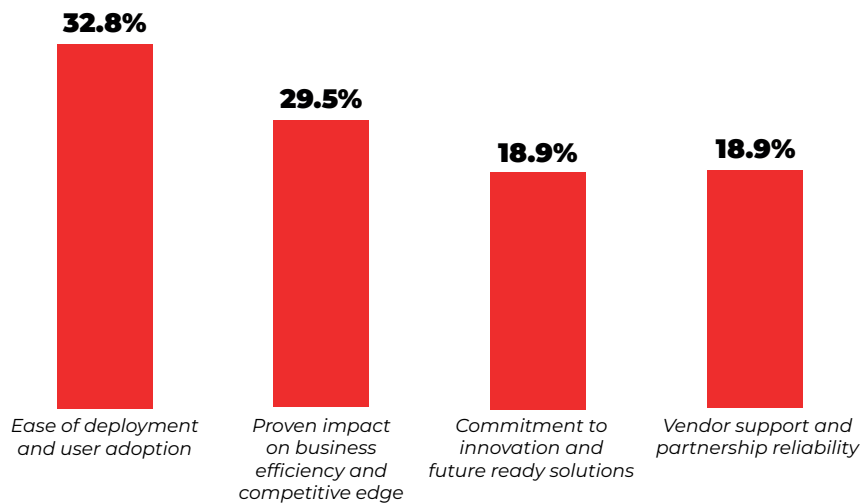
58% of organizations want tools that directly increase their operational efficiency and improve the user experience for customers and employees.

cited ease of deployment and user adoption as the most influential factors in their upcoming technology adoption strategies.

While these requirements may align more directly with enhanced features in development tools, businesses also have demands for the vendors and technology partners they work with. Just under 30 percent want solutions which deliver a proven impact on business efficiency and competitive edge, while around a fifth (19 percent) value suppliers' commitment to innovation and future-ready solutions. An equal number of respondents prioritize vendor support and partnership reliability.

Technology innovation is essential for many organizations. However, purchasing decisions also depend on the strength of supplier relationships and their ability to help drive successful business outcomes.

Factor which will most influence technology adoption strategy in the upcoming fiscal year



Source: The Register

ENHANCE THE CODE

Ensuring data security, regardless of location, is a significant concern for application development teams. This concern is so critical that many organizations may choose to keep development activities on-premise rather than risk operating in multi-cloud or hybrid environments. Such decisions can impact an organizations' ROI and its ability to scale operations to meet demand when rolling out new applications and SaaS services.

The DevOps movement was designed to accelerate application development by ending isolated, waterfall workflows. Central to this transformation is the adoption of CI/CD practices, which automate and streamline code deployments. Yet, survey responses indicate that many organizations still struggle with cross-team technology adoption, tool alignment, and integration, making these areas ongoing challenges.

The wish list for enhanced features and vendor innovation may be extensive, but there are technology providers who offer comprehensive solutions to meet these needs.

62% report ease of deployment/ user adoption and a proven impact on business efficiency and the competitive edge will most influence their technology adoption strategies.

These solutions have been designed to enhance data security and to support hybrid and multi-cloud workload collaboration. Combined with greater automation of routine tasks and the ability to compile, test and run applications in any on- or off-premises environment, this can go a long way to improve the productivity of developer teams.

Docker can help companies automate that CI/CD pipeline as they transition to containerized microservices and modernize legacy applications. Docker also offers tools that developers can utilize to avoid the friction and delays associated with managing multiple workflows. Docker Business, Docker's premium subscription, further enhances productivity by offering centralized management and collaboration tools designed for large teams. With features like single sign-on, integrated developer environments, and streamlined image management, Docker Business enables organizations to accelerate development cycles, reduce operational overhead, and empower teams to work more efficiently across distributed environments.

In addition to supporting your team's productivity, Docker offers Docker Scout, which proactively identifies and addresses security vulnerabilities during the testing phase, helping organizations comply with regulatory frameworks by offering context-aware recommendations for code hardening. With hackers often looking for ways to exploit vulnerabilities in upstream supply chains, Docker Scout aids organizational compliance with regulatory frameworks by providing a means to view and evaluate security policies and provide context-aware recommendations for hardening the code.

Learn more about how Docker's container application development suite of productivity and security solutions can help developer teams build, share, test and run their applications quickly and securely by clicking this [link](#).

The [2024 Docker State of Application Development Report](#) provides a thorough snapshot of industry trends and is available for download. Continue exploring the current market and the key factors that contribute to building a great tech stack today.

Sponsored by Docker.