

Introduction

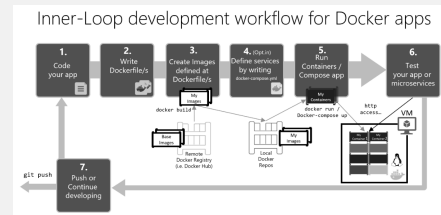
In terms of business value, business executives focus most on practical benefits, highly valuing (61%) the potential of containers to reduce costs related to production downtime, improve application quality (56%) and employee productivity (53%). While remaining wary of containers' unproven efficiency (55%), business executives nevertheless see the potential efficiencies in the DevOps pipeline (77%) as the single most valuable potential benefit in using containers

Source: https://www.bitpipe.com/fulfillment/1519829966_323
Downloads/cloud-research-report-76012576usen-20180117.pdf

Takeaways

1. In order of importance, enterprise-grade security, tools that ease operational challenges, support for cloud and on-premises environments, and flexible application architectures are the key drivers of container-based cloud platform adoption.
2. In terms of using and adopting container-based platforms, solving challenges related to the new technology currently overshadows the demand for advanced services like AI and big data analysis tools.
3. Using containers is associated with improving app quality, reducing both app development costs and production app downtime, and facilitating user experience innovation.
4. Container usage for production enterprise workloads is expected to increase from 25 percent to 44 percent within the next three years. Deployment will shift heavily to Hybrid Cloud and support for on-premises, serverless containerized environments. Deploying only on public clouds will decrease.
5. Respondents see enterprise applications as best suited for container-based application development. Over 40 percent of respondents consider apps involving data analytics best positioned to benefit from being containerized, and approximately a third consider web serving, database and CRM apps best positioned to benefit.
6. Commercial solutions could be the catalyst for container-based development to expand beyond open source frameworks. Commercial solutions are perceived as highly correlated with DevOps, microservices development and automation tools that reduce the operational and uncertainty challenges that currently overburden the container market.

Container App Development



Source: <https://docs.microsoft.com/en-us/dotnet/standard/microservices-architecture/docker-application-development-process/docker-app-development-workflow>

Takeaways 7-12

7. Cloud platform support for developing and easily migrating apps is fundamental for fostering investment in container-based development. Two-thirds of respondents value the ability to allow users to design container compute environments.
8. Consulting services are considered only necessary for complex endeavors — for example (and especially), when companies seek to leverage AI within containerized apps and need support for non-x86 architectures.
9. Compared to IT executives, developers favor container-based technologies and are likely to report strategic benefits from using them. Developers are especially interested in AI, Machine Learning, big data, non-x86 and industry use cases.
10. Across the range of roles, respondents see insufficient internal expertise as one of the significant challenges of adopting container-based app development. IT executives are concerned with time and cost uncertainty, whereas developers are bogged down by operational challenges like redesigning on-premises apps and managing data across containers.
11. Developers value a platform that is best suited to support diverse environments. For developers and IT executives, compatibility with their current IT environment and ease of use rank among the top reasons why a container platform is selected.
12. The primary buyers and leading influencers of container investments are the heads of IT operations and senior IT executives. However, app development leaders, DevOps teams and app developers are also highly influential.