

Navigating the Kubernetes skills gap in cloud adoption

By [Sarthak Rohal](#)

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Businesses are updating their old applications using a multi-cloud strategy and Kubernetes is a key part of this. Even though Kubernetes is popular, there aren't enough skilled engineers. However, businesses are finding different ways to overcome this problem and use Kubernetes effectively.



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Overcoming the Kubernetes skills gap presents a critical challenge for businesses seeking to modernise their legacy applications. In response to the scarcity of qualified professionals, companies are implementing diverse strategies.

These include investing in comprehensive training programs, encouraging certifications, actively recruiting experienced Kubernetes professionals, leveraging managed Kubernetes services, engaging with external consultants, participating in the open-source Kubernetes community, and exploring innovative approaches such as containerisation without immediately adopting Kubernetes.



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These multifaceted efforts showcase the resilience and adaptability of businesses in addressing this crucial skills gap.

Growing demand for Kubernetes expertise

The growing demand for Kubernetes expertise is fuelled by key factors reshaping the IT landscape. With the widespread adoption of containerisation, the shift towards microservices architecture, and the embrace of cloud-native development, Kubernetes has emerged as a key player.

Organisations undergoing digital transformation seek professionals well-versed in Kubernetes to modernise infrastructures and gain agility in software development.

This surge in demand has intensified competition, necessitating businesses to offer competitive incentives, prioritise continuous learning, and broaden their search for skilled professionals globally.

Find and retain experts

Navigating the scarcity of experts demands innovative strategies from businesses. Investing in team training, bringing outsourced experts in-house, and implementing tools and automation for efficiency are proven approaches.

Reduced complexity through managed Kubernetes, embracing DevOps best practices, and aligning decisions with long-term implications also feature prominently.



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These strategies not only address the immediate skills gap but also ensure sustainable talent development and retention, enabling organisations to successfully navigate the challenges associated with Kubernetes expertise.

Industry-specific trends

Different industries exhibit unique trends in Kubernetes adoption, shaping best practices accordingly. In finance and banking, security and compliance take precedence, while healthcare emphasises regulatory compliance and secure data handling.

“ Retail and ecommerce focus on fluctuating workloads, telecommunications on cloud-native technologies, and manufacturing on IoT and edge computing ”

Across industries, common best practices include investing in training, prioritising security, and aligning Kubernetes adoption strategies with specific business objectives.

Multicloud strategy and legacy modernisation

Kubernetes stands as a cornerstone in modernising legacy applications within a multi-cloud strategy. It ensures portability and consistency, aiding seamless operation across diverse cloud providers while avoiding vendor lock-in. In legacy modernisation,

Kubernetes facilitates the containerisation of applications, orchestrates workloads, integrates with modern services,

supports DevOps practices, and enhances scalability and security. Its role in both multi-cloud strategies and legacy modernisation underscores its pivotal position in reshaping and optimising contemporary IT infrastructures.

Emerging technologies

Businesses are strategically leveraging emerging technologies to optimise their Kubernetes adoption and modernisation efforts. These technologies include serverless computing, GitOps, Knative for serverless Kubernetes, container registry and image management, AI/ML integration, edge computing, observability and monitoring, and automated testing tools.

“ Each technology addresses specific aspects of container orchestration, enhancing efficiency and capabilities ”

Using 3rd-party supply as a bridge

Bridging the skills gap necessitates creative solutions, leading businesses to explore third-party providers. Managed Kubernetes services, consulting firms, and educational institutions offering training programs become strategic allies.

These providers offer expertise, architectural guidance, and specialised services, enabling businesses to accelerate Kubernetes adoption.

From fully managed Kubernetes platforms to outsourcing development tasks, engaging with third-party providers offers a diverse range of solutions, allowing organisations to access the necessary skills and support critical for successfully navigating the challenges associated with Kubernetes expertise.

Predictions and trends

There is an increased focus on multi-cloud and hybrid cloud deployments, advancements in the Kubernetes ecosystem, alongside a heightened focus on security.

We're also seeing integration with edge computing, continued emphasis on observability and monitoring, the evolution of Kubernetes-native services, the rise of GitOps practices, Kubernetes as the standard for container orchestration, increased emphasis on sustainability, and integration with AI/ML workloads.

“ As businesses navigate the dynamic landscape of Kubernetes adoption, strategic planning, continuous learning, and creative solutions are imperative ”

By addressing the skills gap, embracing emerging technologies, and staying attuned to industry trends, organisations can position themselves for success in the evolving world of container orchestration and modern IT infrastructures.

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