Well-Architected Framework Review for EKS

By AWS Premier Partner, T-Systems

Kubernetes is one of the fastest-growing open-source projects globally and the de-facto container platform for running containerized and cloud-native workloads. Amazon's Elastic Kubernetes Service (EKS) is a managed container service for running and scaling Kubernetes applications in the cloud or on-premises. EKS is one of the most reliable and easiest ways to start, run and scale Kubernetes clusters.

Many companies however, find managing Kubernetes a complex task, leaving them struggling with how to build secure and cost-effective EKS clusters which can also fulfil the needs of their various teams.

T-Systems Well-Architected Framework Review for EKS equips you with essential guidance to optimize your EKS estate, apply best practices, realize cost savings, improve security, and enhance the experiences of your developers and operators.

Organizations invest in container platform tools to improve productivity and agility and reduce technical debt. The container ecosystem is rapidly evolving with open-source projects, making keeping up with change difficult.

While Kubernetes is a popular platform for building cloud-native applications, common barriers to success include a lack of in-house knowledge and skills and mature DevOps practices to operationalize large-scale deployments.

Challenges faced by Kubernetes Users:

- Cultural Changes with development team
- Security
- Complexity
- Lack of training
- Monitoring
- Networking
- Storage
- Logging
- Service Mesh
- Scaling deployment based upon the load
- Difficulty in choosing an orchestration solution
- Reliability
- Other
- Finding vendor support
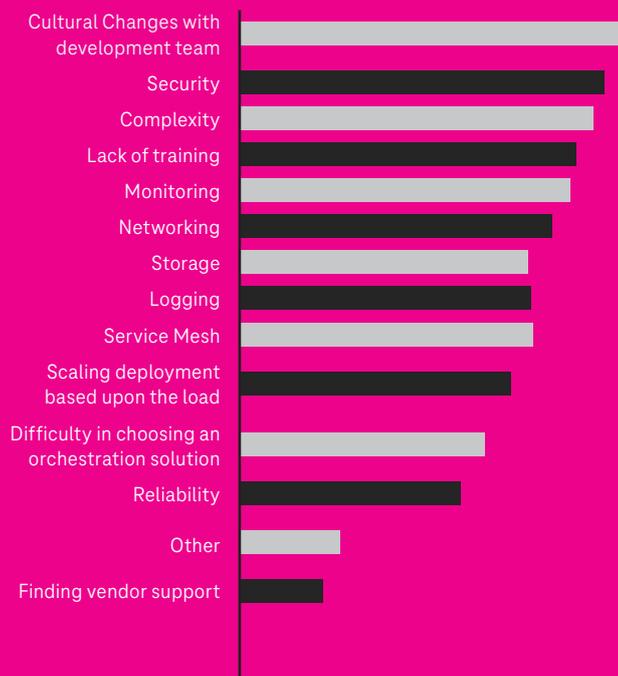
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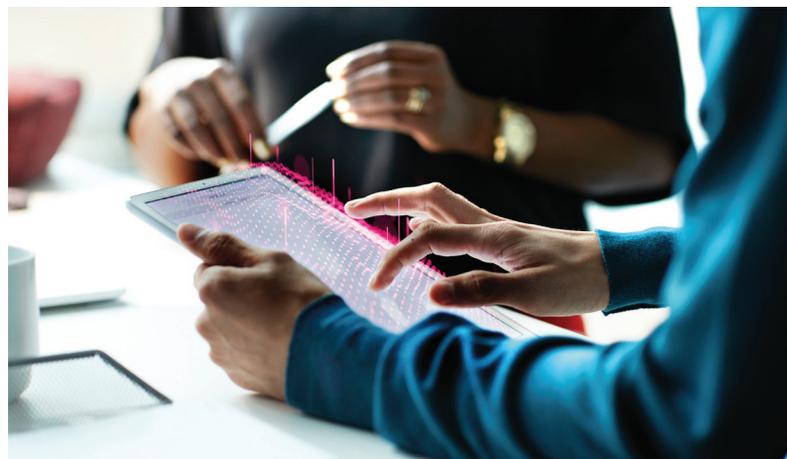
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What is T-Systems Well-Architected Framework Review for EKS?

Our review assesses your existing EKS clusters against Kubernetes, AWS, and CIS best practices, applying the five pillars of the AWS Well-Architected Framework Review. The findings guide and inform various deep-dive sessions that explore key areas such as security or cost optimization. You will receive valuable insights into your Kubernetes platform's configuration, plus recommendations on mitigating critical and high-risk configuration issues.

Once our experts have completed their assessment, they will provide you with a list of findings that will allow you to optimize your EKS estate and mitigate the risks of poor developer experiences or an insecure or expensive platform. Naturally, we'll work closely with your team responsible for the EKS platform to address their concerns. The EKS assessment covers all the essential practices that impact security, availability, and efficiency.

What does the Well-Architected Framework Review for EKS involve?

Over two weeks, experienced and certified T-Systems architects conduct several workshops with you to analyze your existing EKS architecture and determine what best practices are necessary for implementation. The framework for analyzing the architecture derives from current Kubernetes, AWS, and CIS recommendations for designing and operating a cloud native platform based on EKS. cloudnativen Plattform auf Basis von EKS.

The AWS Well-Architected Framework Review for EKS is based on six pillars:

Operational Excellence
Focuses on optimizing operations and monitoring systems for EKS clusters and the associated CI/CD processes

Performance Efficiency
The spotlight is on optimizing AWS resources, even during periods of fluctuating demand or varying system requirements that support the EKS cluster or the workloads running on it

Sustainability
Evaluating your workloads to reduce their energy consumption and improve their efficiency

Cost Optimization
Addresses how to avoid and reduce unnecessary costs in your EKS estate

Reliability
Concentrates on protecting information, systems, and assets that are reliant on EKS

Security
Concentrates on protecting information, systems, and assets that are reliant on EKS

What value can you expect from your Well-Architected Framework Review for EKS?

By commissioning an EKS Well-Architected Framework Review, you will gain the knowledge and confidence to optimize your Kubernetes platform to scale applications without neglecting security. By implementing our recommendations, you will enjoy:

· Faster, secure application development and deployment
· Minimized risk of adopting Open-Source Kubernetes
· Defendable decisions with clear traceability
· Implementation of industry best practices
· Cost-efficient EKS platform usage

What else does the Well-Architected Framework Review for EKS involve?

Our consultant will work with your main stakeholder to identify the critical platform concerns and your staff members participating in the assessment during an initial telephone consultation.

Our review can take place at your premises or remotely. It usually takes one to two hours and can be done offline or over a longer time if needed.

The baseline assessment results are reviewed with your key stakeholders and team to agree on the deep dive areas. Our EKS experts then discuss the current EKS technical practices and configurations for those areas in detail with your team. This stock-taking phase typically requires two to four hours.

Once the deep dives are completed, we evaluate the findings to suggest specific improvements. You will receive a roadmap to mitigate any critical or high (red) results. And now it's up to you because you get to decide what to implement and on what timetable. However, it's comforting to know that you have the know-how to conform to industry best practices.

Our architects are here to answer your questions and assist you. Get in touch today and take your next steps to success with EKS.

Contact us today to get your pricing – inclusive of initial consultation and workshops

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