

CONTAINER MATURITY ASSESSMENT

for identifying infrastructure and
platform improvement potential

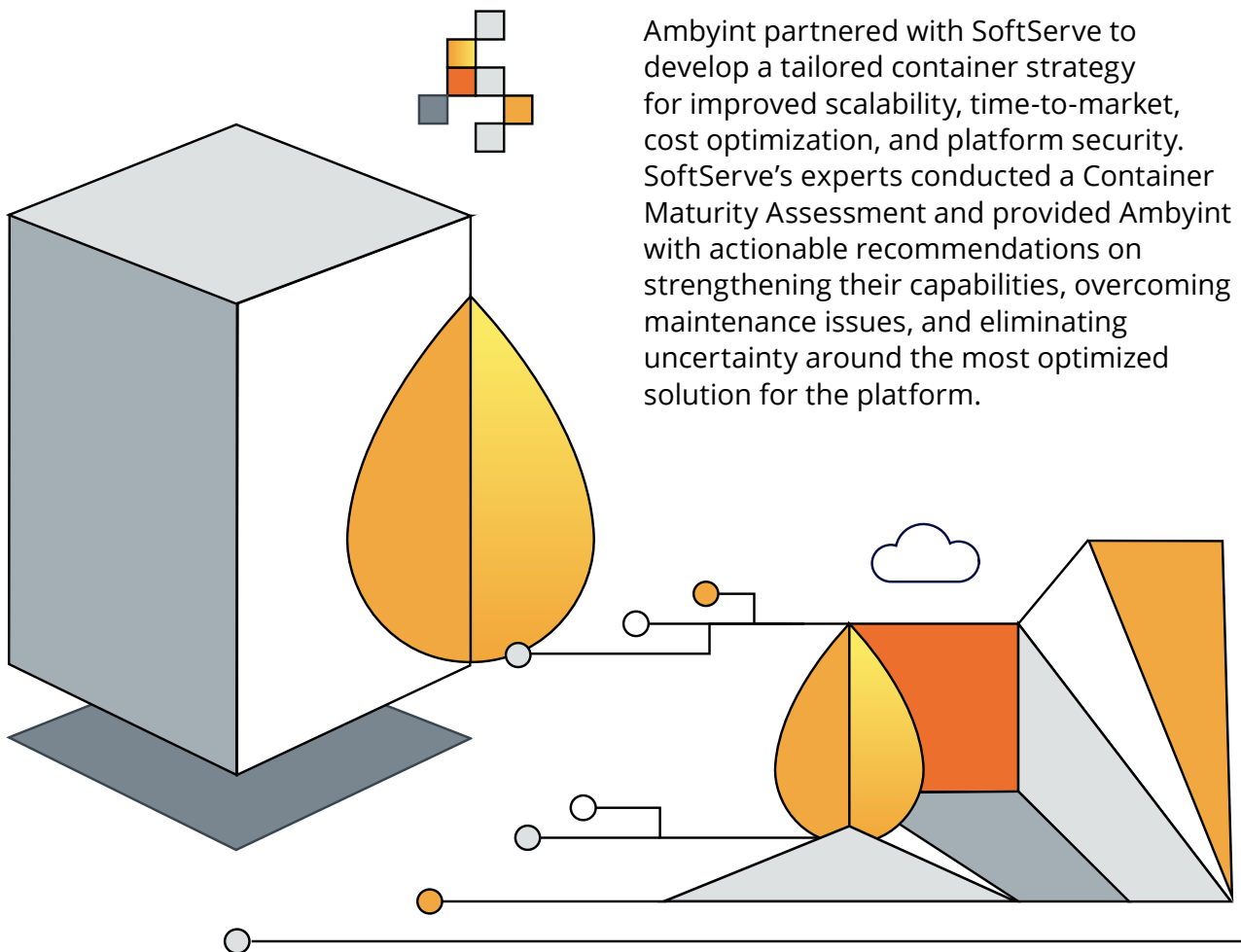
Client Background

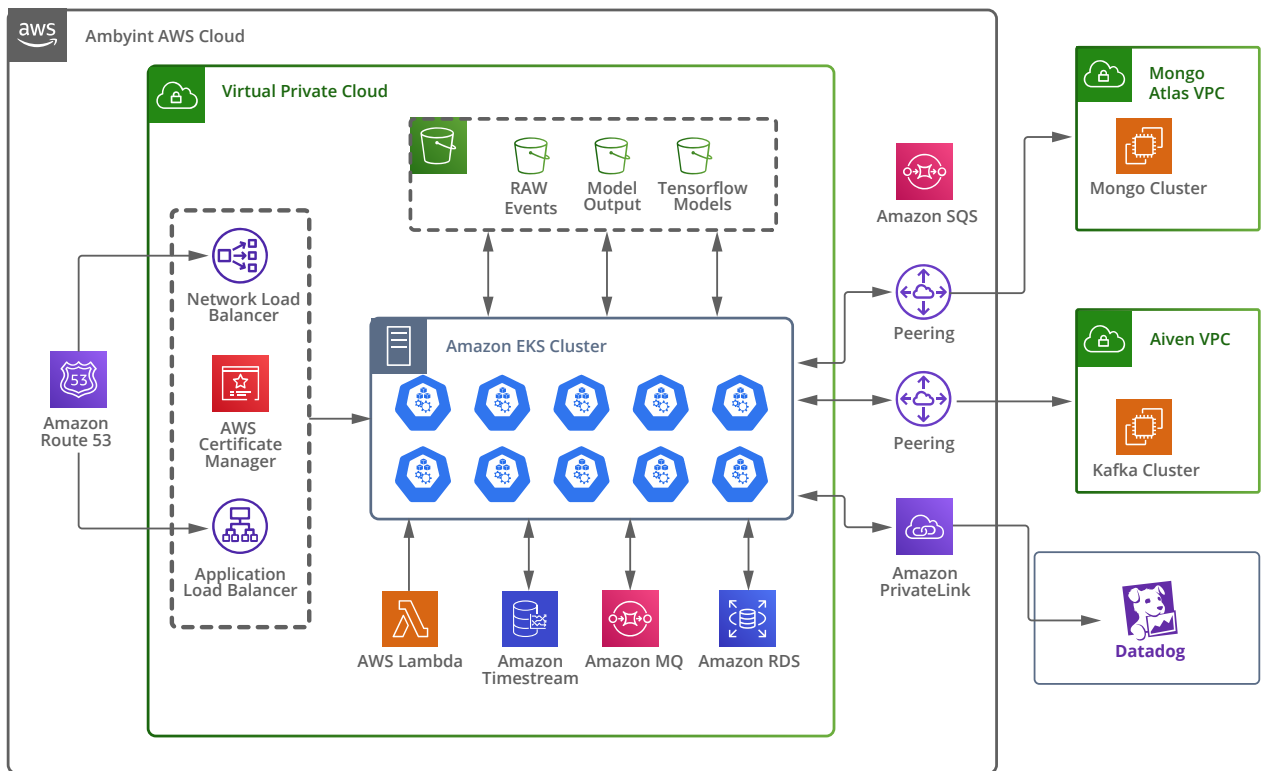
[Ambyint](#) is a leading provider of AI-based artificial lift optimization solutions to oil and gas customers across the globe. The company offers optimization and automation technologies to increase production, lower operating costs, and automate workflows across the lifecycle of a well. Ambyint collects and processes a large volume of high-resolution data from the oil fields to deliver enhanced monitoring and control capabilities for all types of artificial lift systems.

Business Challenge

Ambyint has deep expertise in developing applications powered by AI and ML to monitor and control lift and pump parameters to optimize extraction. The client wanted to identify risks and improvement opportunities for their AWS EKS platform, which will be a primary hosting platform for all applications. As the application stack grew, the solution needed to support multiple new technologies. Ambyint intended to enhance the current infrastructure and implement practices to improve the platform's reliability.

Ambyint partnered with SoftServe to develop a tailored container strategy for improved scalability, time-to-market, cost optimization, and platform security. SoftServe's experts conducted a Container Maturity Assessment and provided Ambyint with actionable recommendations on strengthening their capabilities, overcoming maintenance issues, and eliminating uncertainty around the most optimized solution for the platform.





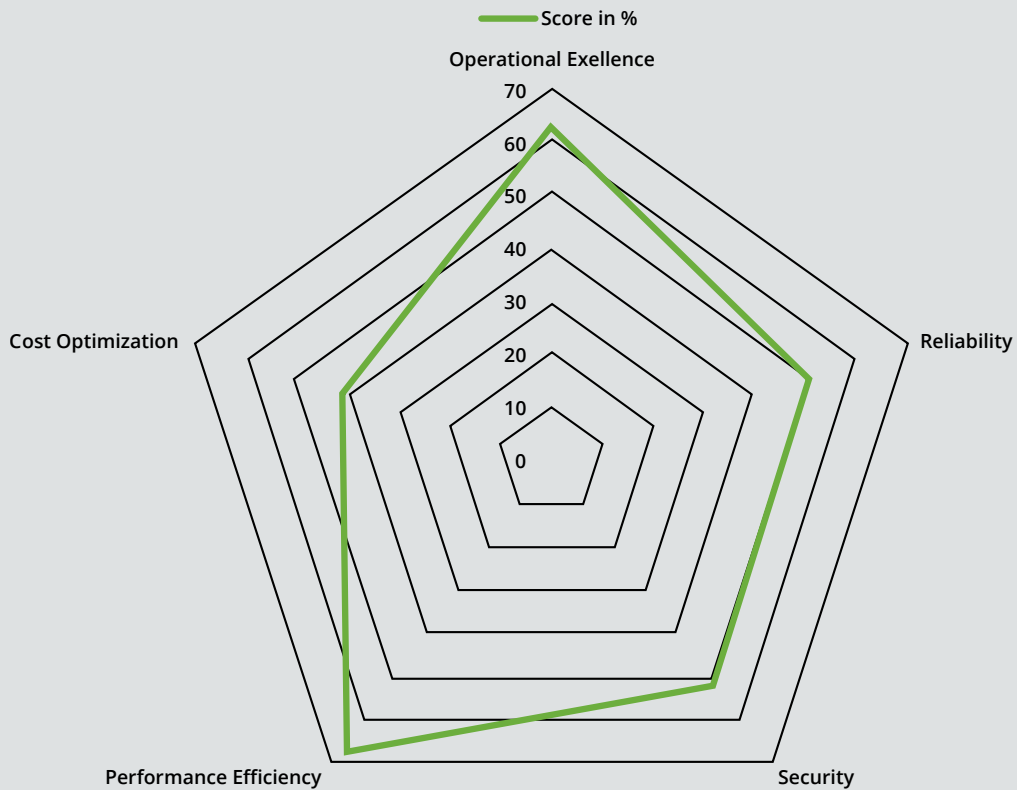
Ambyint AWS System

Project Description

SoftServe suggested they run a Container Maturity Assessment workshop to correlate with SoftServe's [Container Maturity Assessment offering](#). Using SoftServe's Container Maturity Assessment Tool, based on the AWS Well-Architected Framework and SoftServe's assessment frameworks, the SoftServe team checked for improvement opportunities related to the AWS account and ecosystem setup. The assessment was primarily focused on the maturity of the containers and the EKS platform they run on.

Together with the client's team, we came up with the following steps for the project:

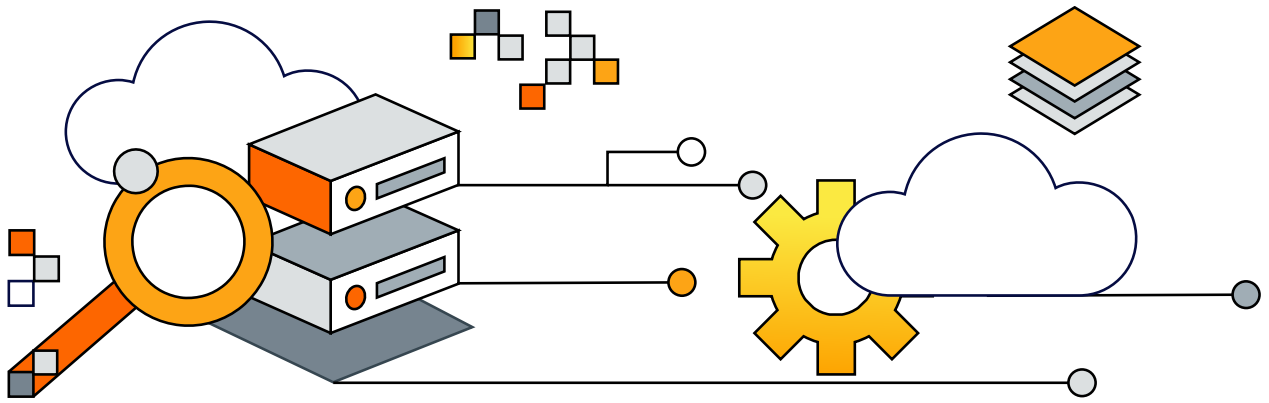
- Understanding the constraints and concerns
- Basic review of AWS structures and containerized workloads
- EKS platform review using the Container Maturity Assessment Tool
- Kubernetes manifests review
- Report preparation and presentation



Assessment results according to Well-Architected Framework pillars

During the assessment, the SoftServe team identified a misconfiguration on the EKS platform from a security and reliability perspective. It was related to running a cluster control plane in version 1.21 while self-managed worker groups were running kubelet version 1.15, which is no longer supported. Cluster components like CoreDNS may work only with specific versions of EKS, and AWS provides detailed [documentation](#) about these components.

Ambyint, together with SoftServe, managed to remediate defined risks by creating a related plan and successfully implementing it to recover from the cluster failure caused by the misconfiguration on the EKS platform, preventing possible negative consequences of inappropriate EKS platform upgrades in the future. Ambyint remained true to their focus on continuous business improvement and increased operational excellence by keeping EKS at the latest version and following other short and long-term improvement recommendations provided by SoftServe.



Value Delivered

As an [Amazon Web Services Premier Consulting Partner](#), SoftServe helped Ambyint perform a container strategy assessment to identify risks, group them according to the priority levels, come up with recommendations, and create the implementation plan. The assessment report contains risk remediations and improvements for the current platform, focusing on technology and maturity.

After the assessment was conducted, we were able to achieve the following:

- Develop a **mature container strategy** to serve the client's business needs.
- Identify **risks and improvements related to the EKS platform** and measure them against Well-Architected Framework pillars (operational excellence, security, reliability, performance efficiency, and cost optimization).
- Build a backlog of improvements classified as quick wins, short-term recommendations, and long-term recommendations to **enhance the EKS platform's security and scalability capabilities**.

- Perform **cost optimization**, including an implementation plan, prioritizations, and timelines.
- Identify **risks and improvements related to the AWS account and ecosystem setup**.
- Suggest **infrastructure unification and standardization** as a business component improvement to keep easy manageability of the technology stack.
- Prepare a **team extension setup** to include an AWS solutions architect and DevOps engineers with defined profiles, who will focus on optimizing architecture and cloud infrastructure components, prepare all related documentation, and perform follow-up container maturity assessments for the client.

LET'S TALK about how SoftServe can help you perform a container maturity assessment, identify strengths, and prioritize improvement points leveraging advanced technologies and cloud services.

ABOUT SOFTSERVE

We are a digital authority made up of advisors, engineers, and designers who deliver innovation, quality, and speed to elevate and accelerate our clients' digital journeys.

Our approach is built on a foundation of empathetic, human-focused experience design that ensures value and continuity from concept to release.

WE IDENTIFY WHERE YOU ARE.

WE PREPARE YOU FOR THE ROAD AHEAD.

WE TAKE YOU WHERE YOU NEED TO GO.

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