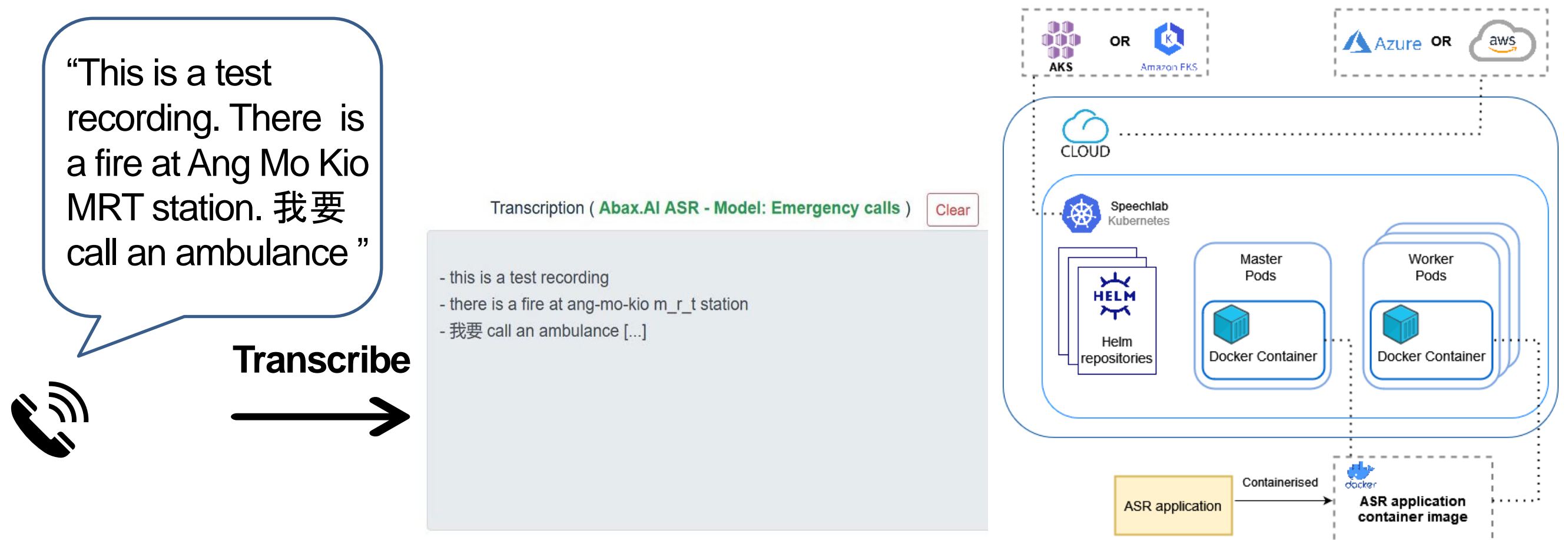# Docker and Kubernetes

Enhance the securities of the live-stream ASR system deployment in the cloud

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Automatic Speech Recognition System:

Project Objectives:

The project aims to employ additional security implementations on top of the existing Automatic Speech Recognition (ASR) system which can transcribe audio spoken in multiple different languages. This would harden the present ASR system deployments, improving security, decreasing the number of exploitable vulnerabilities, and making the system less susceptible and more resilient to cyber threats. Preventing such attacks will fulfill the basic security requirements of data confidentiality, data integrity, and availability of the deployment services.

Project Solutions:

These solutions were implemented for this project:

- **Nginx Ingress Controller**: Secure communications and Reduce attack surface

- **HashiCorp Vault**: Encrypt confidential data and Reduce data visibility

- **Terraform**: Streamline system provisioning and clean up

Implemented Solutions: