

## Amazon Elastic Kubernetes Service

### Amazon Elastic Kubernetes Services

Amazon Elastic Kubernetes Service (Amazon EKS) is a managed service to run Kubernetes in the AWS cloud and on-premises data centres. Kubernetes is an open source system to deploy, scale, and manage containerised applications.

The benefits of Amazon EKS include:

- **Automated operations**  
Amazon EKS has built-in commands to handle the heavy lifting of application management, allowing you to automate day-to-day operations.
- **Infrastructure abstraction**  
When you install Amazon EKS, it handles the compute, networking, and storage on behalf of your workloads. This allows developers to focus on applications and not worry about the underlying environment.
- **Service health monitoring**  
Amazon EKS continuously runs health checks against your services, restarting containers that fail, or have stalled, and only making available services to users when it has confirmed they are running.

Some common use cases for Amazon EKS include:

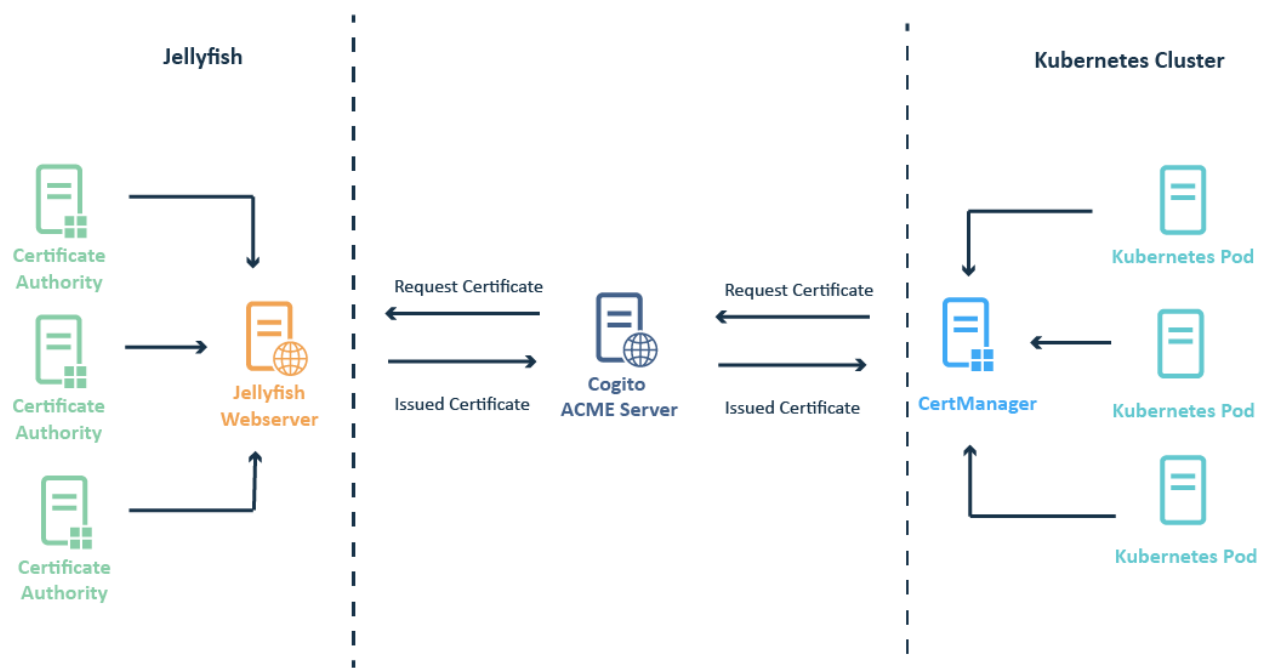
- **Increasing development velocity**  
Amazon EKS helps you to build cloud-native microservices-based apps. It also supports containerisation of existing apps, thereby becoming the foundation of application modernisation and letting you develop apps faster.
- **Deploying applications anywhere**  
Amazon EKS is built to be used anywhere, allowing you to run your applications across on-site deployments and public clouds; as well as hybrid deployments in between. So you can run your applications where you need them.

- **Running efficient services**

Amazon EKS can automatically adjust the size of a cluster required to run a service. This enables you to automatically scale your applications, up and down, based on the demand and run them efficiently.

## Jellyfish integration with Amazon EKS

Jellyfish provides Amazon EKS integration to enhance the management of certificates used in the cluster.



The Jellyfish ACME server can be used by the Amazon EKS CertManager platform (<https://cert-manager.io/>) to automatically issue certificates for pods. Through use of the Jellyfish Amazon EKS Certificate discovery tool, users can monitor certificates issued in an Amazon EKS cluster outside of the Jellyfish system.

Jellyfish provides an ACME server, which clients can use to request certificates using the ACME protocol. The popular Amazon EKS certificate management tool CertManager may be configured to act as an ACME client and will automatically request and renew certificates for pods.

The Jellyfish Amazon EKS Certificate Discovery Tool connects to Amazon EKS CertManager and can detect and import certificates that were issued outside of Jellyfish system. Once

imported into Jellyfish, users will be able to search for important certificate information such as expiry dates, subject names and more.

By issuing certificates through the ACME protocol, users can automatically provision and renew certificates for pods throughout their Amazon EKS cluster. This reduces time spent manually provisioning certificates and avoids certificate expiries which can lead to outages.

Importing certificates through the Discovery Tool gives operators a greater oversight of their certificate usage by allowing them to view certificate information in a centralized platform.

### About Cogito Group

Cogito Group is an award-winning, Australian owned and operated ICT company, specialising in authentication, cloud security, identity management and data protection. Cogito Group protect the authentication methods used to access information through the use of Identity and other security technologies. Cogito Group protect data not only from unauthorised access and disclosure, but also from being altered by an unauthorised third party or a trusted insider with malicious intent. This assists in the detection and prevention of fraud or other malicious activities by third parties or trusted insiders.