

■ Amazon EKS Cheat Sheet

■ What is Amazon EKS?

- AWS's managed Kubernetes service.
- Manages the Kubernetes control plane for you.
- Integrates with AWS services: IAM, VPC, CloudWatch, ELB/ALB, etc.

■ Key Features

- Managed control plane across multiple AZs.
- Deep AWS integration (IAM, ALB, CloudWatch).
- Supports EC2 and Fargate worker nodes.
- Secure with IAM roles, encryption, private endpoints.

■ Core Components

- EKS Cluster: Managed Kubernetes control plane.
- Node Groups: Managed or self-managed EC2 worker nodes.
- Networking: Amazon VPC CNI plugin.
- Add-ons: CoreDNS, kube-proxy, VPC CNI, Helm charts.

■ Typical Workflow

1. Create an EKS cluster (Console, CLI, Terraform, etc.).
2. Configure kubectl: `aws eks update-kubeconfig`.
3. Add worker nodes: EC2 or Fargate.
4. Deploy workloads with manifests or Helm.
5. Integrate AWS services (Ingress, Storage, Monitoring).

■ Common Use Cases

- Production microservices.
- Hybrid cloud workloads.
- Machine learning/data pipelines.
- Multi-tenant SaaS applications.

■ CLI Commands

- `aws eks update-kubeconfig --region us-east-1 --name my-cluster`
- `aws eks list-clusters`
- `kubectl get nodes`
- `kubectl apply -f deployment.yaml`