How software get to customers
DevOps flow

Minimum steps with least requirements required heavily on manual work and aws console No security measure, only good for small size team

Dev

Source Code

GitHub

ssh into instances and do manual copy of the code into the instance

Amazon RDS

Amazon EC2

Amazon EC2

Front End

Back End

Application Load Balancer

Amazon Route 53

SSL CERTIFIED

End User

Software that scale, mostly used after initial MVP get funded
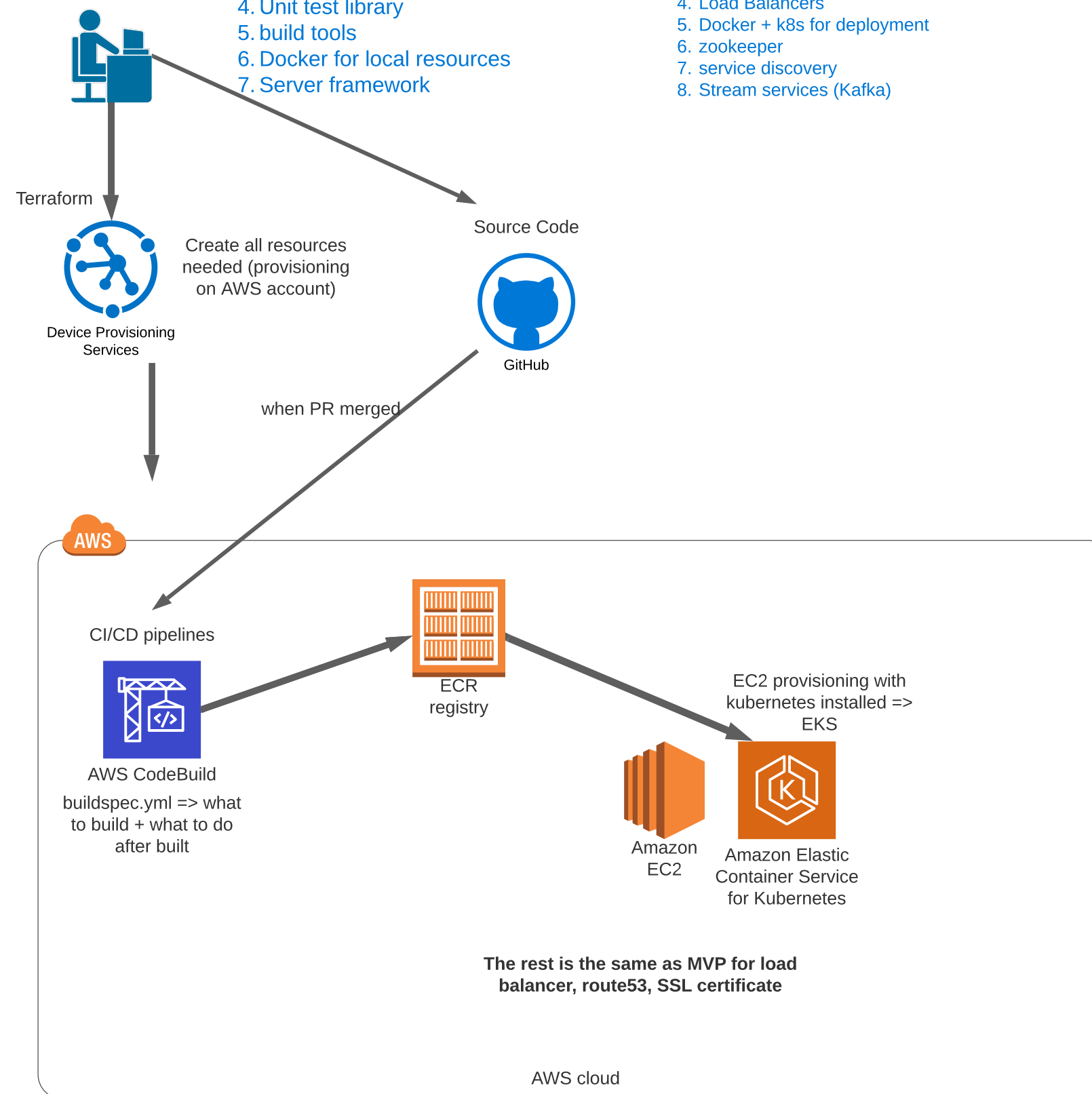
Dev

Tools needed for local development:
1. Formarter
2. Linter
3. Integration test library
4. Unit test library
5. build tools
6. Docker for local resources
7. Server framework

Topics for architectures:
1. Availability vs Consistency
2. Microservices Increased latency + reduced consistency
3. NoSQL + SQL
4. Load Balancers
5. Docker + k8s for deployment
6. zookeeper
7. service discovery
8. Stream services (Kafka)

Terraform

Create all resources needed (provisioning on AWS account)

Device Provisioning Services

Source Code

GitHub

when PR merged

AWS

CI/CD pipelines

ECR registry

EC2 provisioning with kubernetes installed => EKS

AWS CodeBuild

buildspec.yml => what to build + what to do after built

Amazon EC2

Amazon Elastic Container Service for Kubernetes

The rest is the same as MVP for load balancer, route53, SSL certificate

AWS cloud