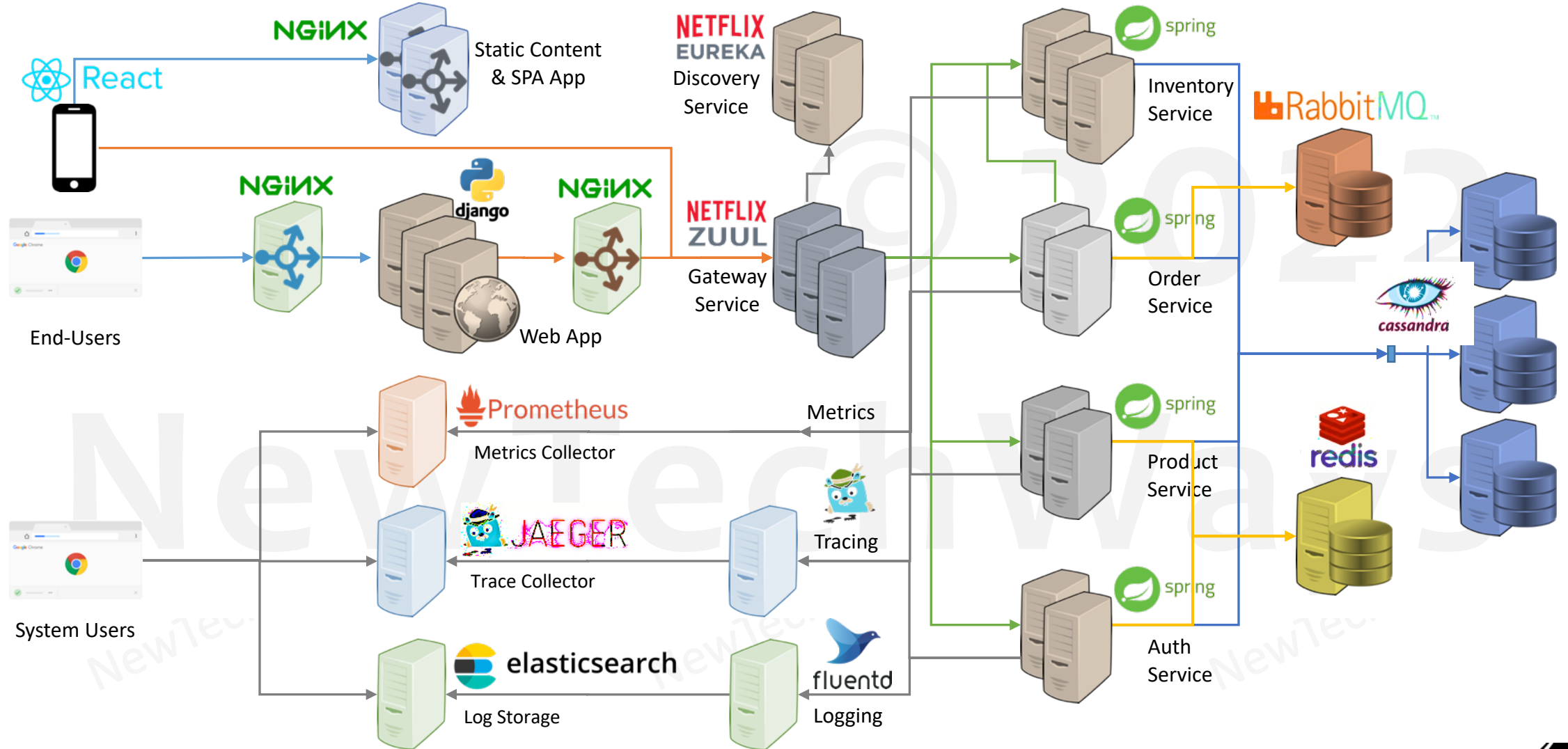# High-Scale System Deployment with Kubernetes

# Single Machine Deployment

Kubernetes & Cloud
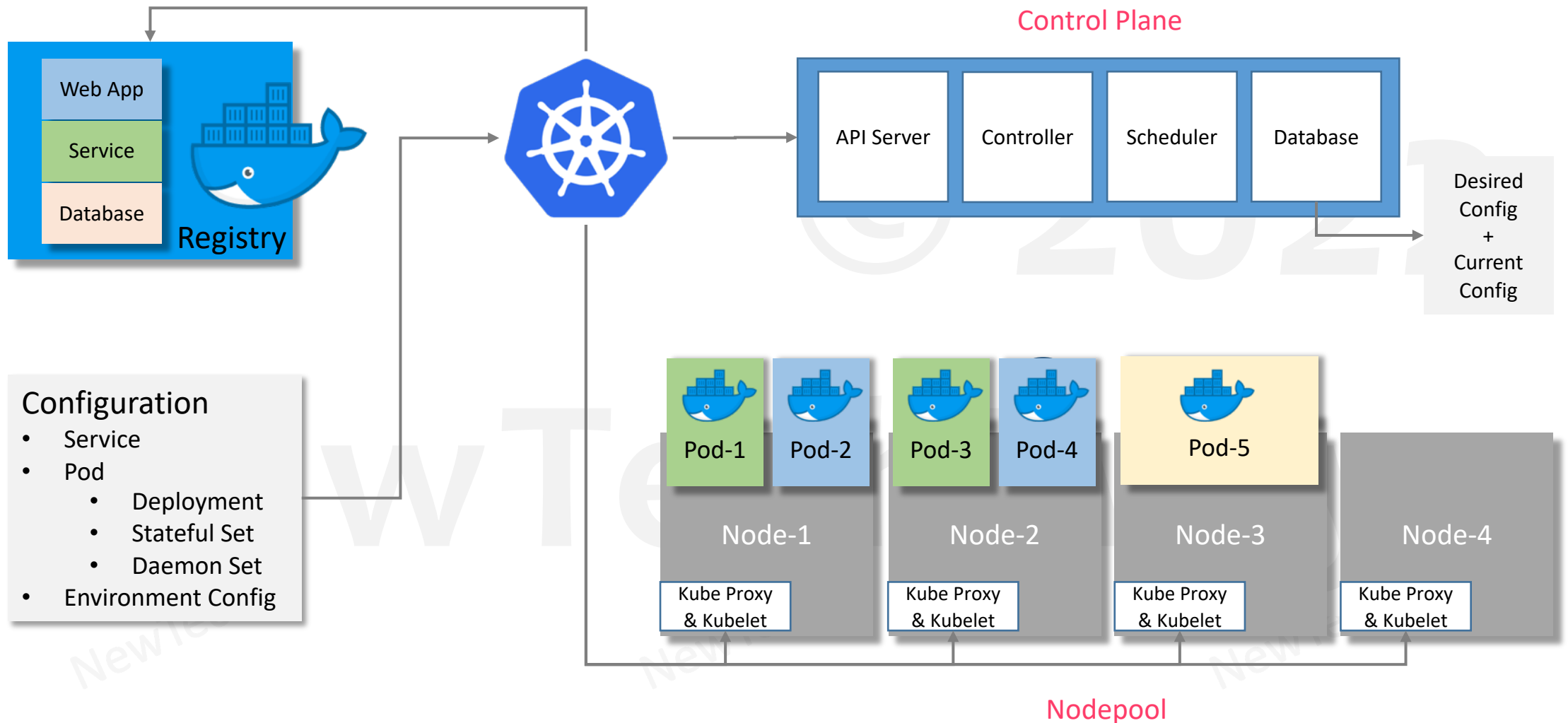
- Kubernetes
  - Automated deployment
    - Configuration
  - Lifecycle automation
    - Start, Stop, Restart
    - Monitor, Upgrade
    - Health checks
  - Networking
    - DNS
    - Routing
    - Load balancing
  - High Availability

- Cloud
  - Kubernetes Cluster
    - Kubernetes installed Cluster Nodes
  - Compute Resources
    - CPU, Memory, Disk
  - Network
    - Public IP Address, Load Balancer
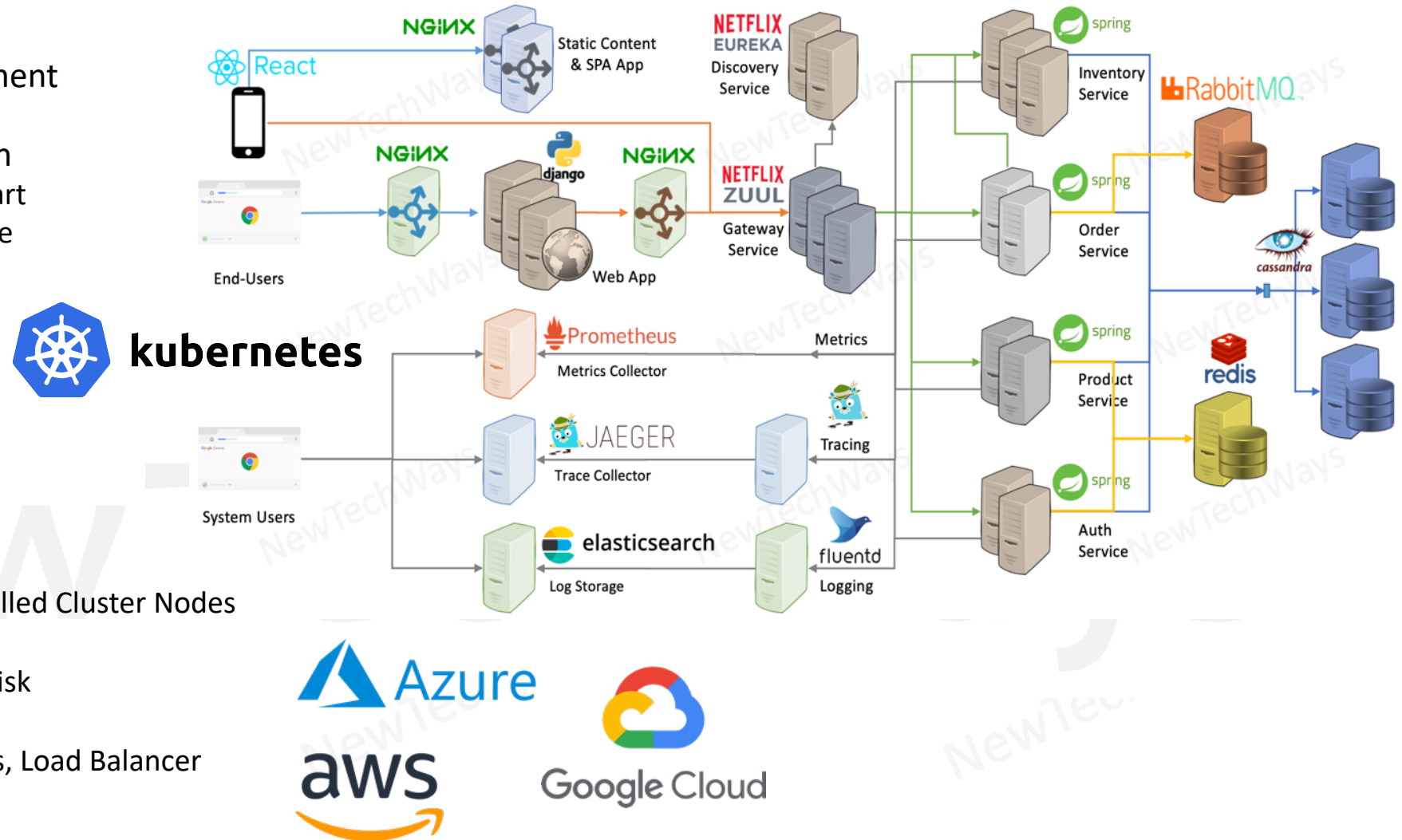
Kubernetes Cluster Architecture

Deployment with Kubernetes on Google Cloud

- Setup
  - Container Registry Setup
  - Kubernetes Cluster Setup
  - Application Configuration
- Deployment
  - Application Deployment
- Operations
  - High Availability
  - Autoscaling
  - Rolling Upgrades

NewTechWays