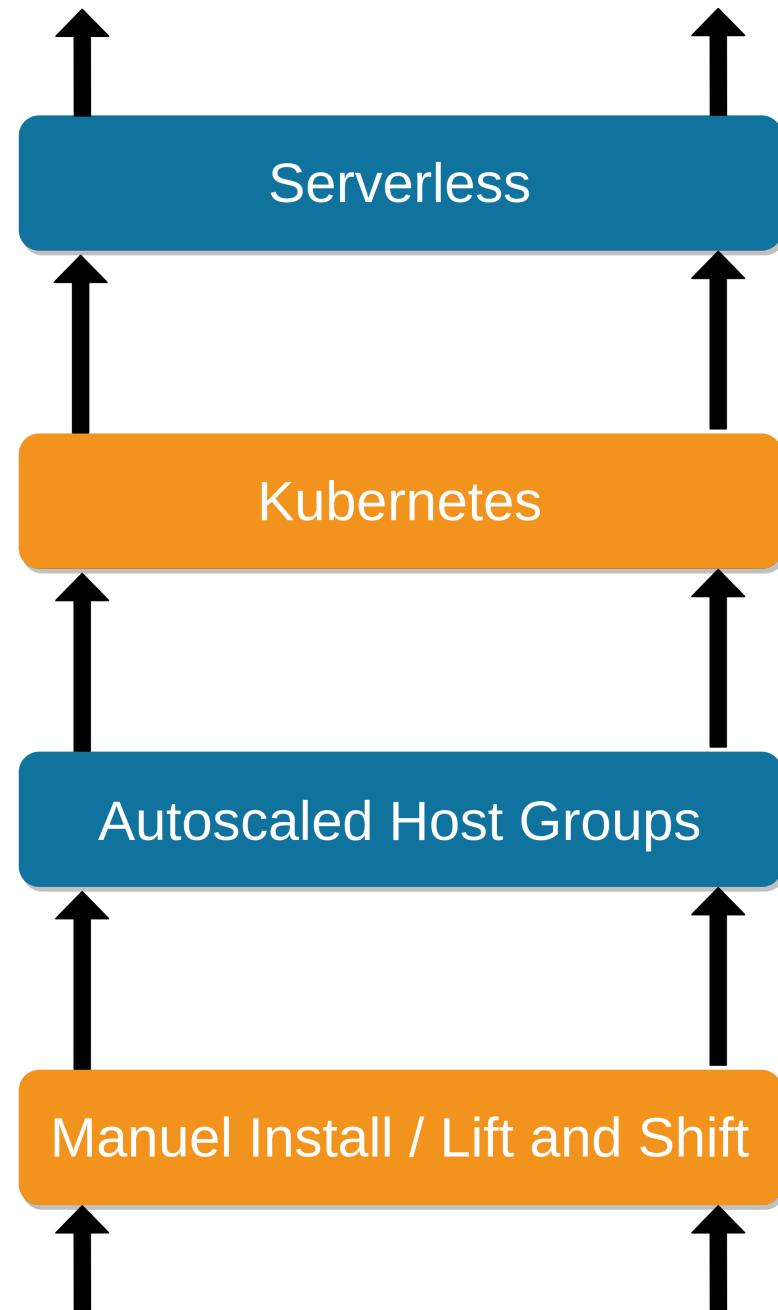


# Climbing up the scaling ladder

# Scaling in the cloud

- 3 Scaling scenarios
- demos at [scale.8c.at](https://scale.8c.at)  8
- cloud is not about cost, it is about scaling





## Lift and shift

- Migrate legacy VMs/Software with (almost) no modification
- Doesn't scale very well (bigger VMs, faster disks)
- Your mess for less
- Conclusion: don't do it

# Autoscaled Host Groups

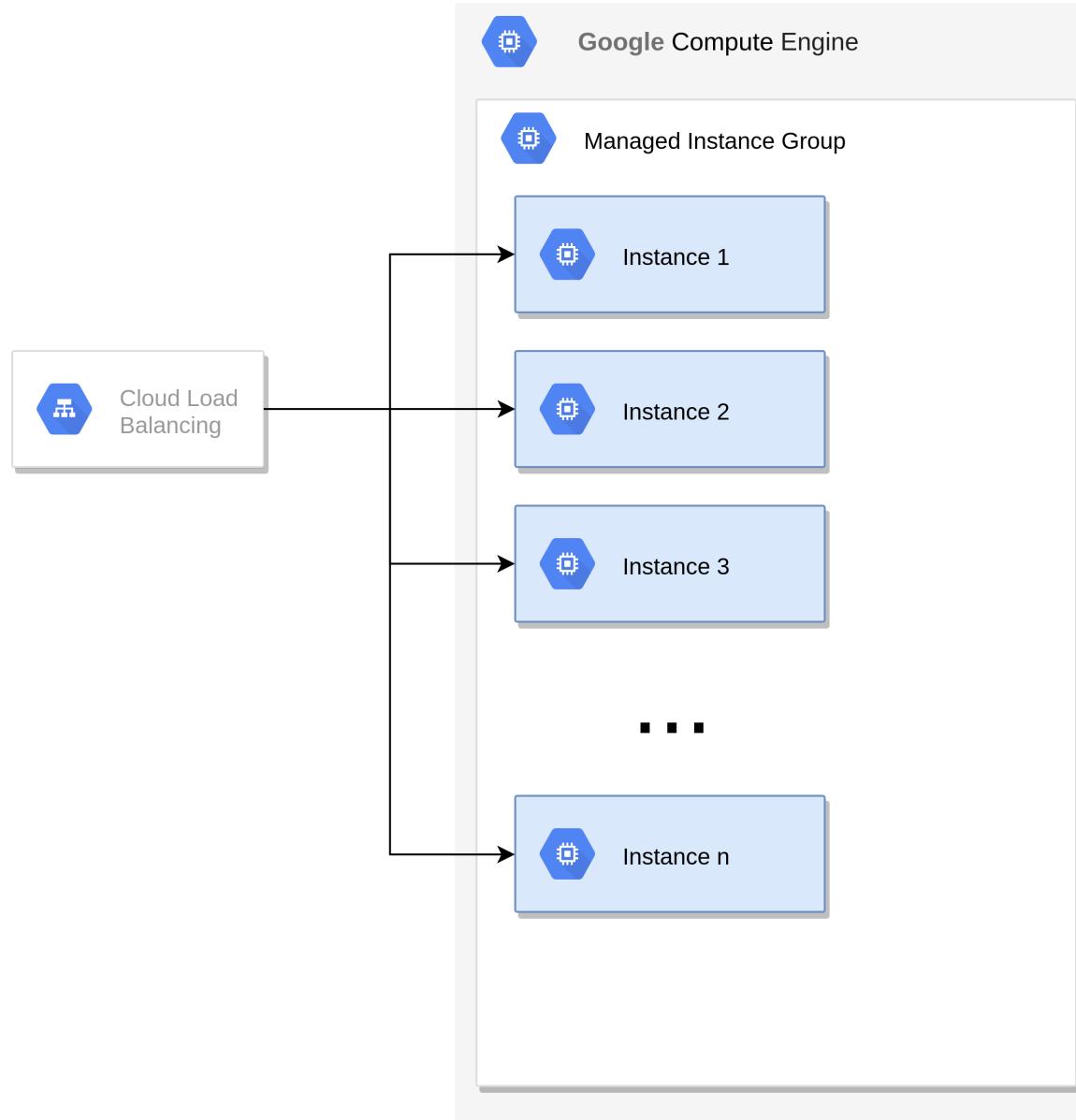
- Lift and Shift +
- Paradigm shift: VMs are containers
- Make infrastructure immutable
- Persist data outside VM



# Ingredients Autoscaled Host Groups

- Managed instance group
  - VM Autoscaler
- Packer
  - VM Image
- Terraform
  - VM Template
  - Managed instance group
  - Loadbalancer

# Managed instance group in GCP



# **Demo Autoscaled Host Groups**





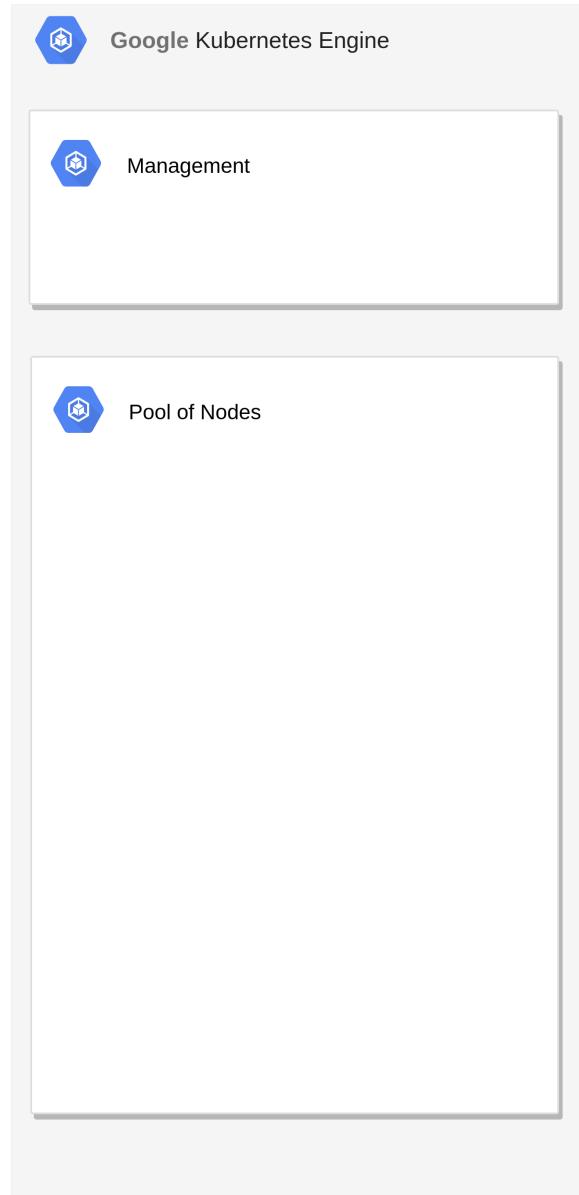
## kubernetes

- Paradigm shift: There are no VMs
- Pool of resources
- services containerized

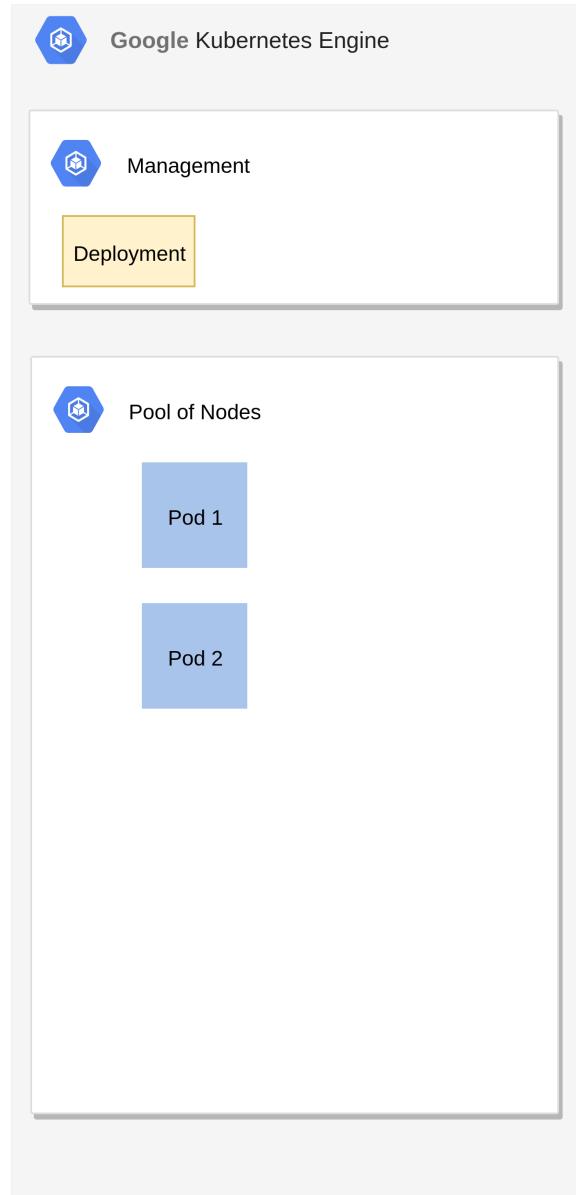
# Ingredients kubernetes

- Terraform
  - Kubernetes Cluster
  - Node Autoscaler
- Docker
  - Container image
- Kubernetes
  - Deployment
  - Horizontal Pod Autoscaler
  - Service

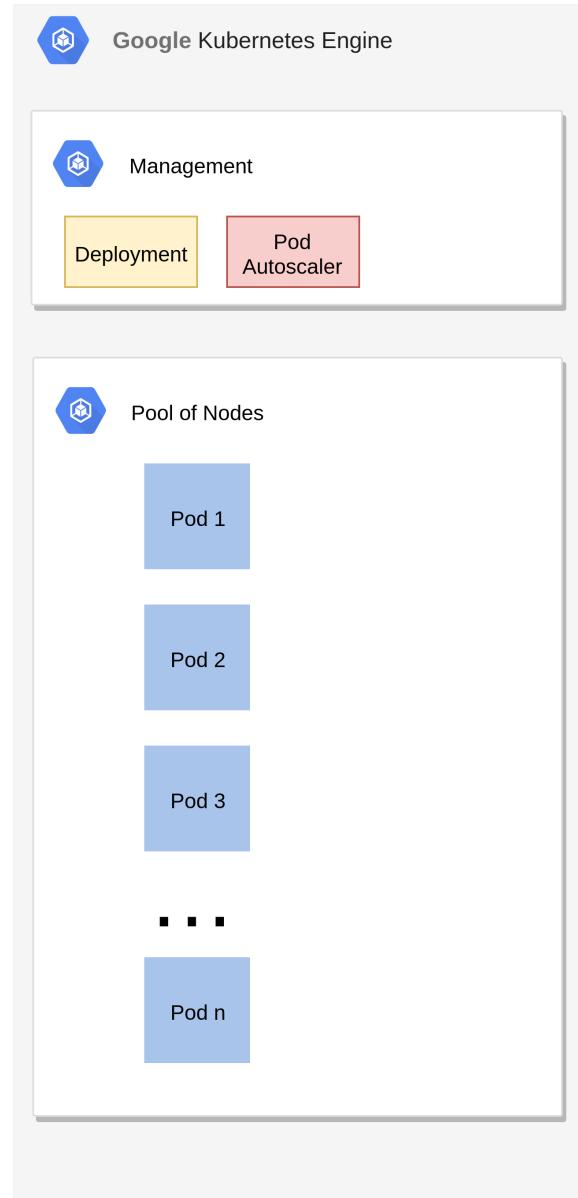
# Kubernetes cluster



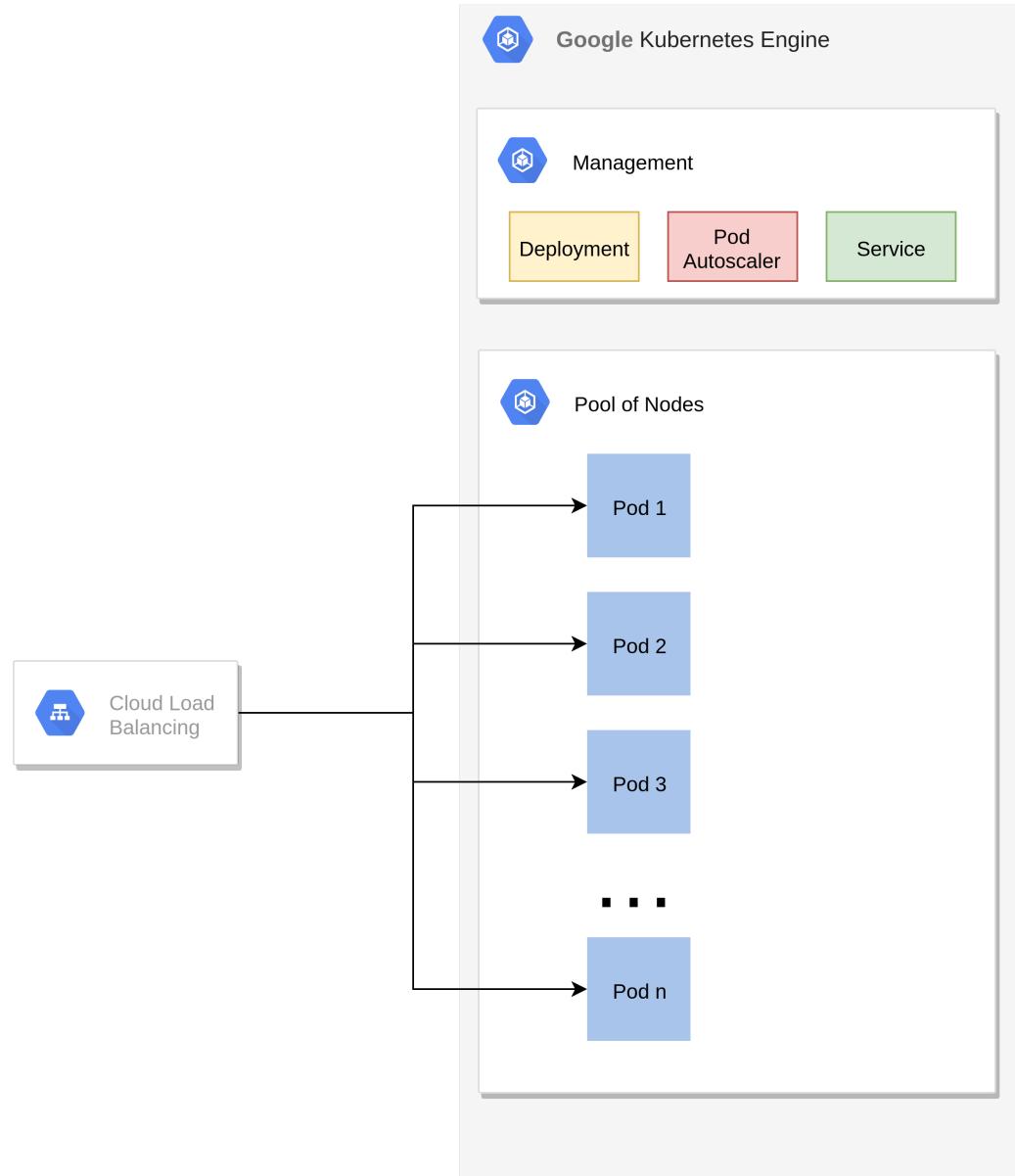
# Kubernetes deployment



# Kubernetes pod autoscaler



# Kubernetes service



# Demo kubernetes



# serverless

- Paradigm shift: There is no infrastructure
- No infrastructure management
- Pay per use
- stateless

# Ingredients serverless

- Docker
  - Container Image
- Cloud Run
  - Deployment

# Demo serverless



# Takeaways

- Don't do lift and shift
- separate storage from computing