

# Custom k8s Implementation on the Cloud

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April 28, 2025

## **Abstract**

Phase 1 implementation includes the following steps:

- Custom k8s fully automated deployment on Azure:
  - Deploy Private Virtual Network with Private Virtual Subnets
  - Deploy Linux Virtual Machines (VM) (LB, k8s nodes)
  - Configure High Availability (HA) Load Balancer (LB)
  - Start Prime Master k8s node
  - Once Prime Master k8s node reach Ready state deploy rest of nodes (Masters, Workers)
- Custom k8s fully automated deployment on AWS (TODO)
- Custom k8s fully automated deployment on Google (TODO)

# Chapter 1

## Phase 1 Implementation

### 1.1 Two different possible scenarios:

- ✓ Local ETCD Infrastructure 1.1
- ✓ External ETCD Infrastructure 1.2

### 1.2 Fundamentals Benefits of a custom k8s cluster on the Cloud

- ✓ Reducing Cost: 💰
- ✓ Being able to customise the Operating System: 🐧
- ✓ Being able to customise the nodes: 🏠

Figure 1.1: High Level Design Local ETCD

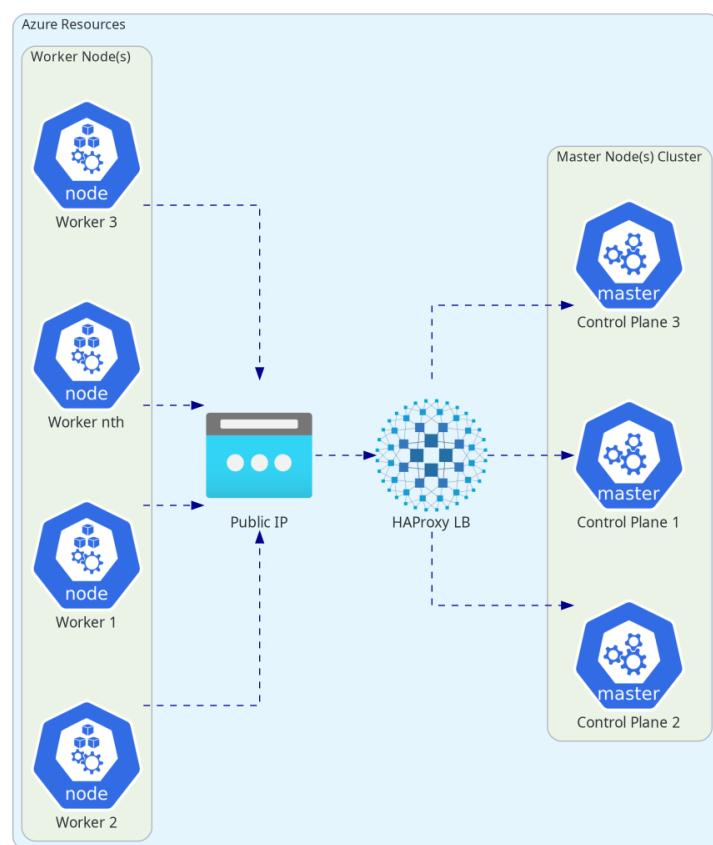


Figure 1.2: High Level Design External ETCD

