

What is Kubernetes

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Features of Kubernetes

- Scalability** – Kubernetes provides horizontal scaling of pods on the basis of CPU utilization. The threshold for CPU usage is configurable and Kubernetes will automatically start new pods if the threshold is reached

Means to modify the attributed resources (like CPU or RAM) of each node in the cluster (Vertical Pod Autoscaler).

**Vertical
Scaling**

**Horizontal
Scaling**

Means modifying the compute resources of an existing cluster, for example, by adding new nodes to it or by adding new pods by increasing the replica count of pods (Horizontal Pod Autoscaler).





Features of Kubernetes

- **Scalability** - Kubernetes provides horizontal scaling of pods on the basis of CPU utilization. The threshold for CPU usage is configurable and Kubernetes will automatically start new pods if the threshold is reached
- **Self-healing** - Kubernetes automatically replaces and reschedules containers from failed nodes. It kills and restarts containers unresponsive to health checks, based on existing rules/policy. It also prevents traffic from being routed to unresponsive containers.
- **Automated rollouts and rollbacks** - Kubernetes seamlessly rolls out and rolls back application updates and configuration changes, constantly monitoring the application's health to prevent any downtime.

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