The Complete HorizontalPodAutoscaler Flow of Events

In this lesson, we will describe the complete flow of HPA events.

WE'LL COVER THE FOLLOWING

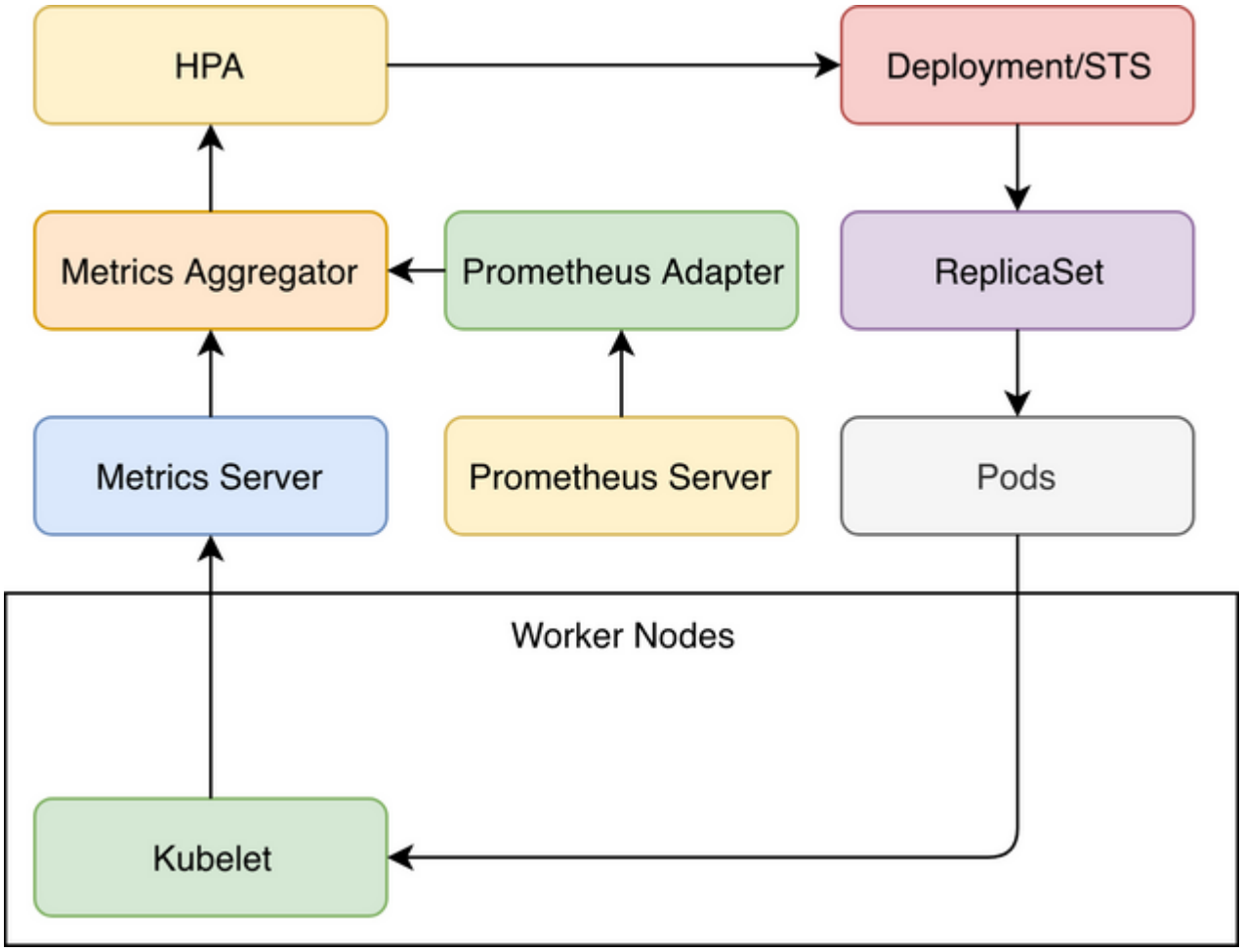
Complete `HPA` flow of events

`Metrics Server` is fetching memory and CPU data from Kubelets running on the worker nodes. In parallel, `Prometheus Adapter` is fetching data from `Prometheus Server` which, as you already know, pulls data from different sources. Data from both **Metrics Server** and `Prometheus Adapter` is combined in *Metrics Aggregator*.

> 🔍 `HPA` is periodically evaluating metrics defined as scaling criteria. It's fetching data from **Metrics Aggregator**, and it does not really care whether they're coming from `Metrics Server`, `Prometheus Adapter`, or any other tool we could have used.

`HPA` manipulation

Once scaling criteria are met, `HPA` manipulates Deployments and StatefulSets by changing their number of replicas. As a result, rolling updates are performed by creating and updating ReplicaSets which, in turn, create or remove Pods.



HPA using a combination of metrics from Metrics Server and those provided by Prometheus Adapter (arrows show the flow of data)

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Data from both `Metrics Server` and `Prometheus Adapter` is combined in *Metrics Aggregator*.

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1 of 1

In the next lesson, we will discuss reaching Nirvana.