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## Kubernetes in the CERN Cloud

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The Magnum component of OpenStack is used to provision container orchestration clusters in the CERN cloud, with Kubernetes being by far the most popular cluster type.

This presentation will look at the new features in Magnum and Kubernetes which make it possible to create highly available Kubernetes clusters that are suitable for hosting critical services.

This includes node groups for splitting nodes across multiple availability zones, software-defined networking loadbalancers for cluster ingress and to enable multi-master clusters, pod and cluster autoscaling for dynamically responding to increased load on a service, and other features.

By combining these features the availability and stability that is possible for a cluster is high enough for us to start running parts of the OpenStack control plane on Kubernetes.

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