Storage classes with NetApp Kubernetes Service on NetApp HCI

HCI

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Storage classes with NetApp Kubernetes Service on NetApp HCI

After you enable cloud services on NetApp HCI and enable NetApp Kubernetes Service (NKS), Kubernetes storage classes are created.

When you add applications in NKS, you need to know the storage class and its provisioner.

Storage classes with NKS

The following table lists the storage classes and the associated provisioners and IOPS values.

Storage class	Provisioner	IOPS minimum	IOPS maximum	IOPS burst
solidfire-bronze	netapp.io/trident	1000	4000	6000
solidfire-silver	netapp.io/trident	5000	25,000	40,000
solidfire-gold	netapp.io/trident	15,000	180,000	200,000
vsphere (default)	kubernetes.io/vsphere-volume	NA	NA	NA

Storage class impact

Storage classes affect storage pools, QoS values, and persistent volume claims in the following ways:

- Each NetApp Element storage class uses a unique storage pool.
- Storage pools are identified by a set of unique QoS (IOPS) values.
- When a Persistent Volume Claim (PVC) uses one of the "solidfire" storage classes, a volume within the referred storage pool is created on Element.
- Trident creates the PV with the storage class and the storage pool attributes.
- Kubernetes mounts the volume to the pod.

Example of PVC using a storage class

This example shows a volume created with the *solidfire-gold* storage class IOPS values on Element. When a pod uses this PVC, the new volume with the *solidfire-gold* IOPS values is mounted to the pod.

```
kind: PersistentVolumeClaim
apiVersion: v1
metadata:
      name: pvcclaim-gold
spec:
  accessModes:
  - ReadWriteOnce
  resources:
    requests:
      storage: 10Gi
  storageClassName: solidfire-gold
```

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