



HostPath Volume

Concept

Objectives

Concept

- a. hostPath – Overview

Review Demo

- a. Manifest file
- b. Create and display
- c. Test use cases
- d. Clean up

hostPath

- mounts a file or directory from the host node's filesystem into your Pod
- Remains even after the pod is terminated
- Similar to docker volume
- Use cautiously when required
- Host issues might cause problem to hostPath

Review

Demo

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- b. Create & display



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hostPath – Config

```
# HostPath
apiVersion: v1
kind: Pod
metadata:
  name: redis-hostpath
spec:
  containers:
    - name: redis-container
      image: redis
      volumeMounts:
        - mountPath: /test-mnt
          name: test-vol
  volumes:
    - name: test-vol
      hostPath:
        path: /test-vol
```

HostPath – Create and Display

```
[srinath@master ~]$ kubectl create -f redis-hostpath.yaml  
pod/redis-hostpath created
```

```
[srinath@master ~]$ kubectl get po
```

NAME	READY	STATUS	RESTARTS	AGE	IP	NODE	NOMINATED NODE
redis-hostpath	1/1	Running	0	19m	10.240.2.163	node2	<none>

```
[srinath@master ~]$ kubectl exec redis-hostpath df /test-mnt
```

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/sda1	10474496	5389740	5084756	52%	/test-mnt

Pod running on : node-2

Mount (inside Pod): /test-mnt

Volume : /test-vol (directory on node2)

HostPath – From Host to Pod

Host(node2):


```
[root@node2 ~]# cd /test-vol
```

```
[root@node2 test-vol]# echo "From Host" > from-host.txt
```

```
[root@node2 test-vol]# cat from-host.txt  
From Host
```

Pod:

```
[srinath@master ~]$ kubectl exec redis-hostpath cat /test-mnt/from-host.txt  
From Host
```



HostPath – From Pod to Host

From Pod:


```
[srinath@master ~]$ kubectl exec redis-hostpath -it -- /bin/sh
# cd /test-mnt
# echo "From Pod" > from-pod.txt
# cat from-pod.txt ←
From Pod
# exit
```

From Host (node-2):

```
[root@node2 ~]# cd /test-vol

[root@node2 test-vol]# ls
from-pod.txt  from-host.txt

[root@node2 test-vol]# cat from-pod.txt
From Pod
```



HostPath – Delete

```
[srinath@master ~]$ kubectl delete po redis-hostpath  
pod "redis-hostpath" deleted
```

```
[srinath@master ~]$ kubectl get po  
No resources found
```

```
[root@node2 ~]# ls /test-vol  
from-pod.txt  from-host.txt
```

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Coming up...

Demo
hostPath