



IT大咖说
不止于技术

ETCD in Kubernetes@eBay

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- Main features
- Challenges in Production
- ETCD in Kubernetes@eBay

Main features

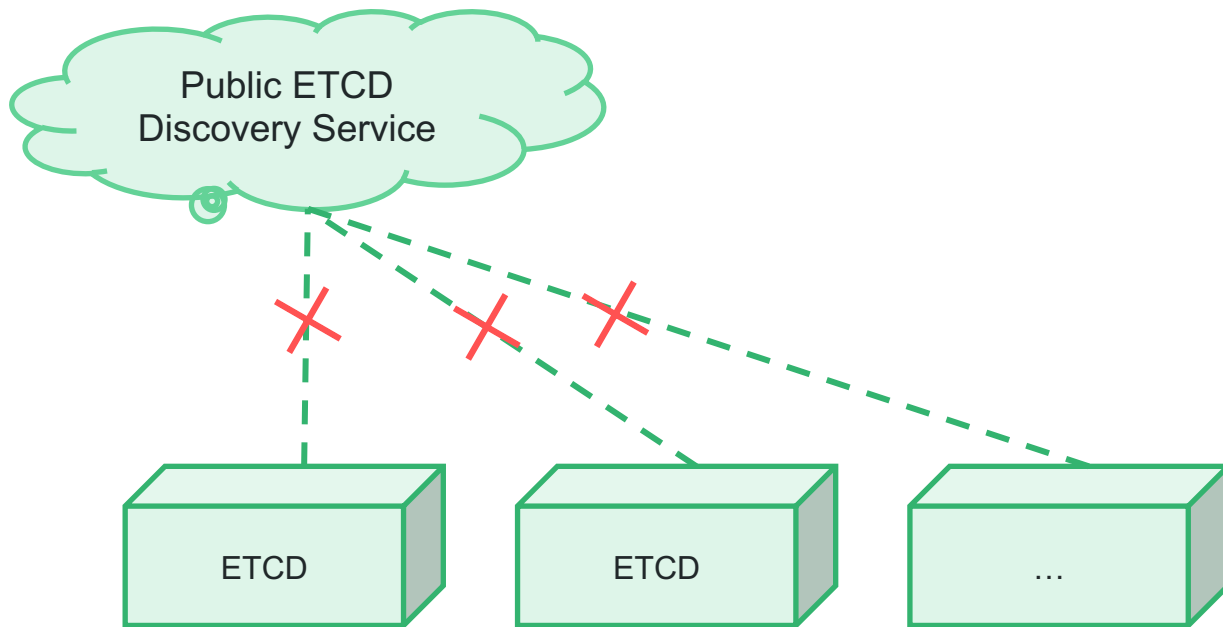


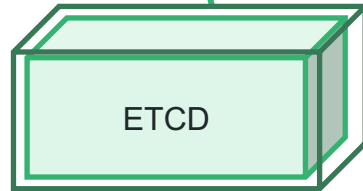
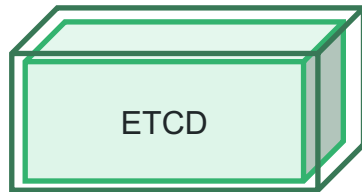
- A Distributed Key-Value store
- Data sync. on consistency algorithm
- Provide Monitoring mechanism
- Provide Key TTL
- Provide Compare-and-Swap/Delete
- etc.

Challenges in Production

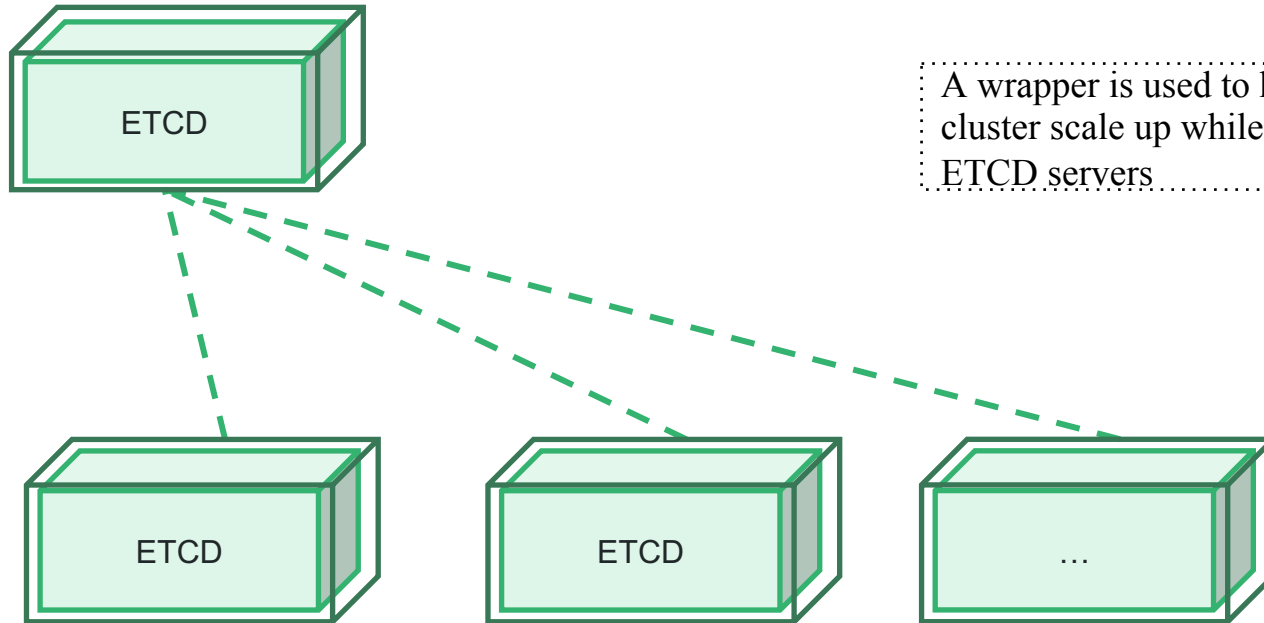


- Cluster scalability
- Cluster auto. heal(todo list)
- Data lost

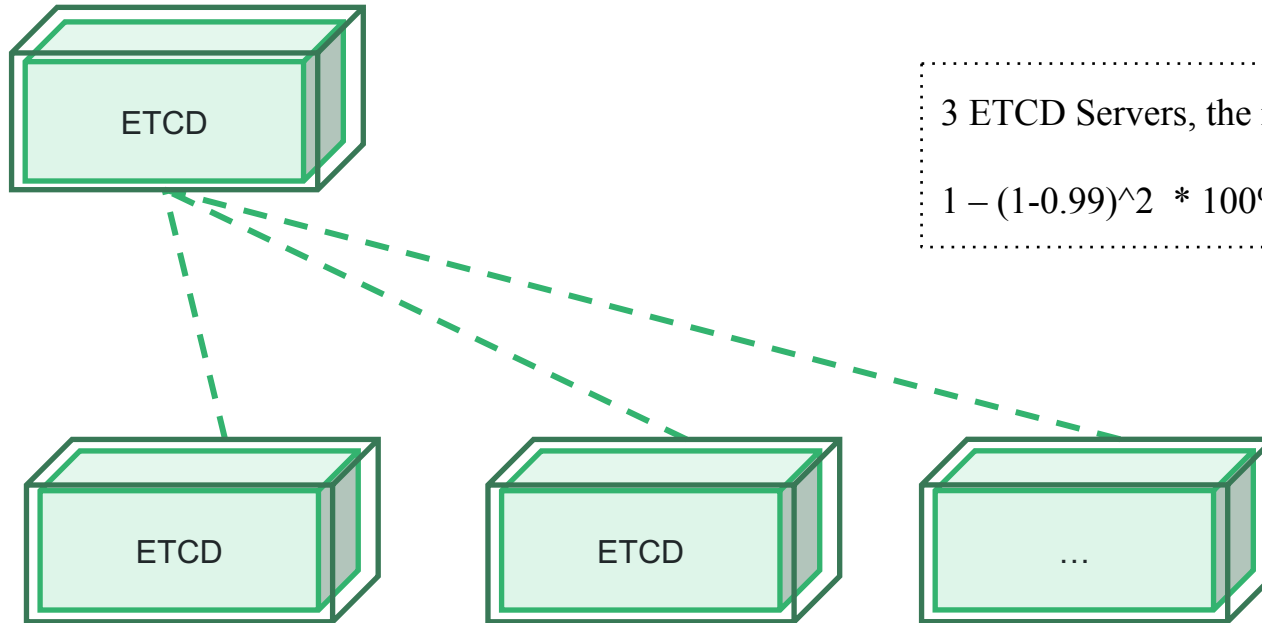




A wrapper is used to help initialize ETCD cluster, scale up cluster while adding new ETCD servers

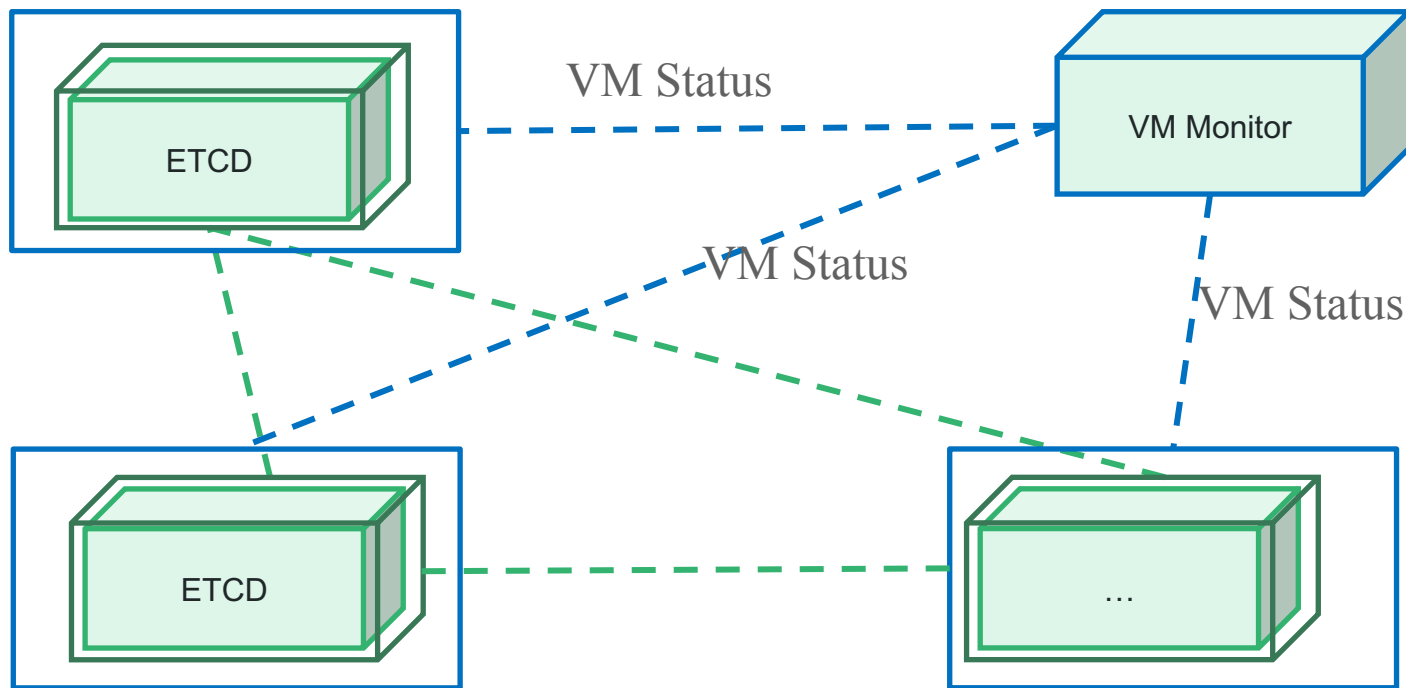


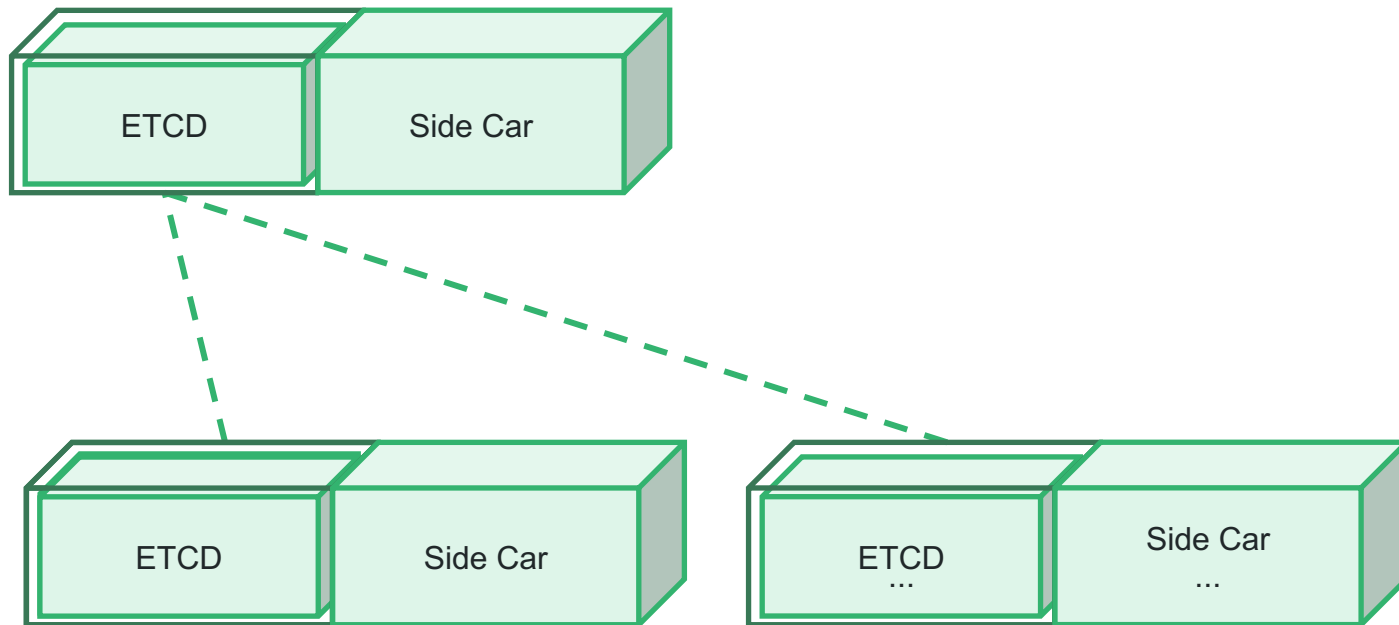
A wrapper is used to help ETCD cluster scale up while adding new ETCD servers

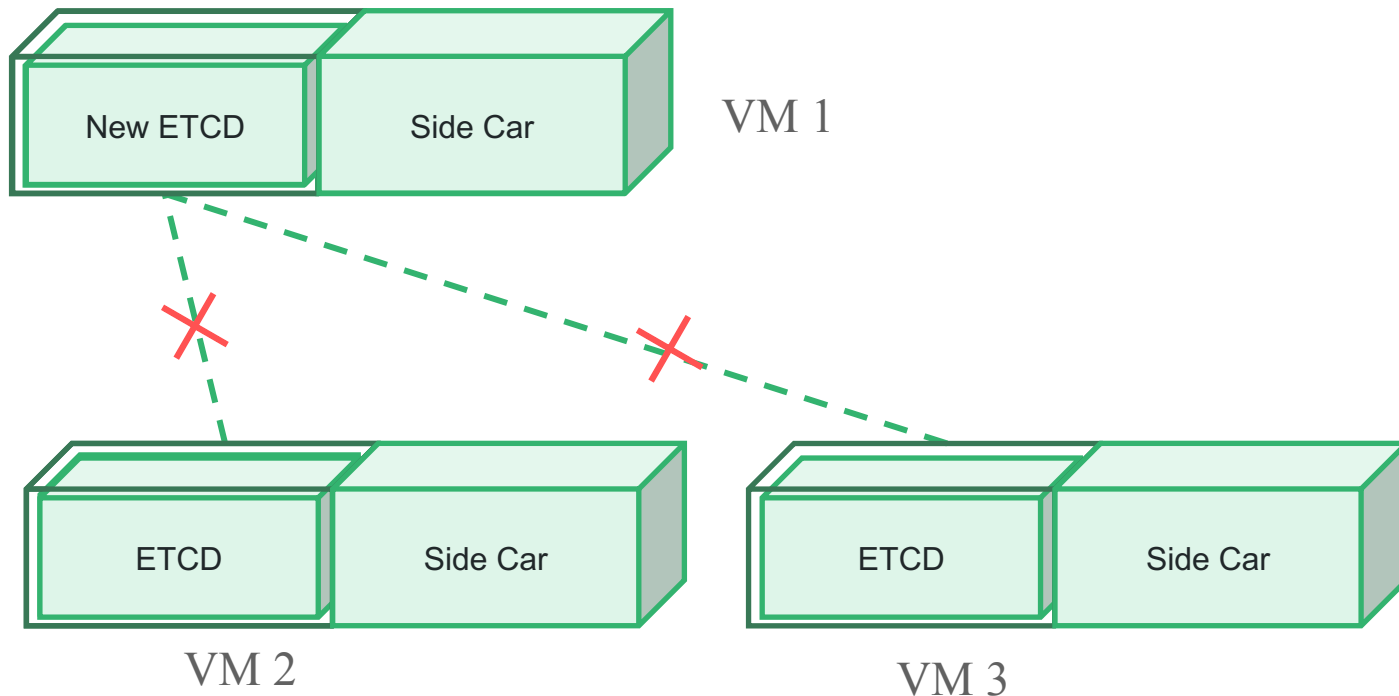


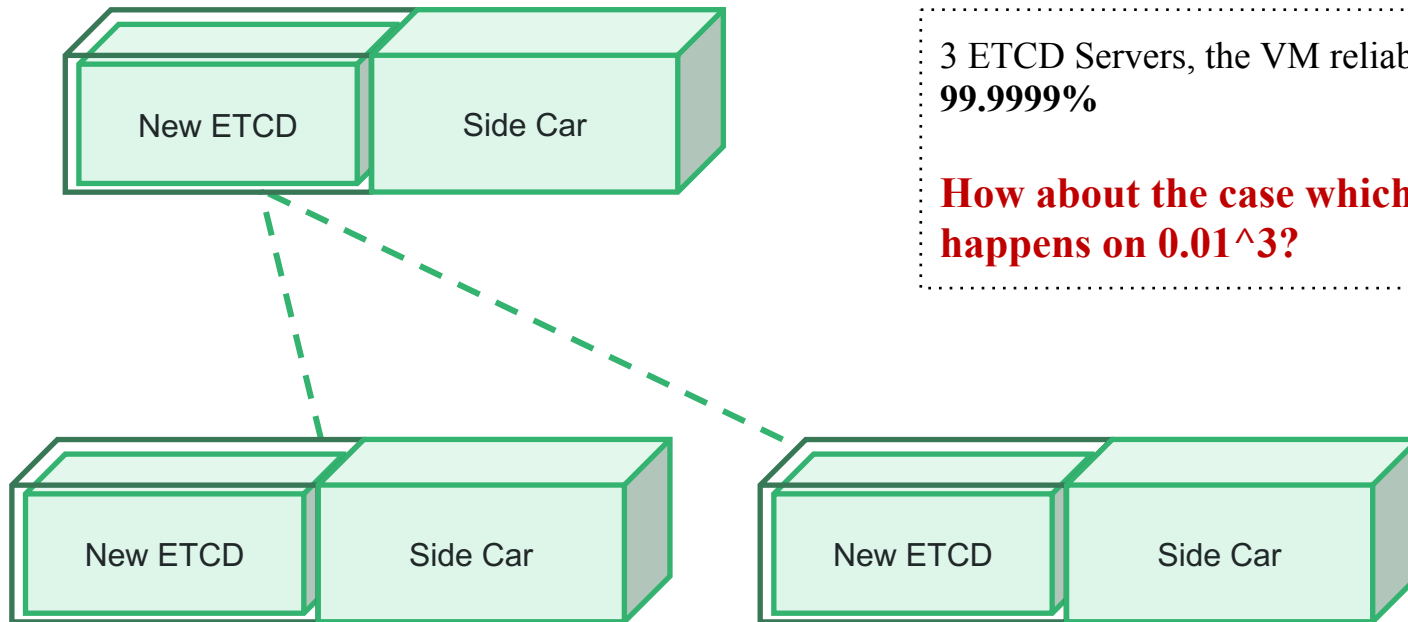
3 ETCD Servers, the reliability:

$$1 - (1-0.99)^2 * 100\% = \mathbf{99.99\%}$$



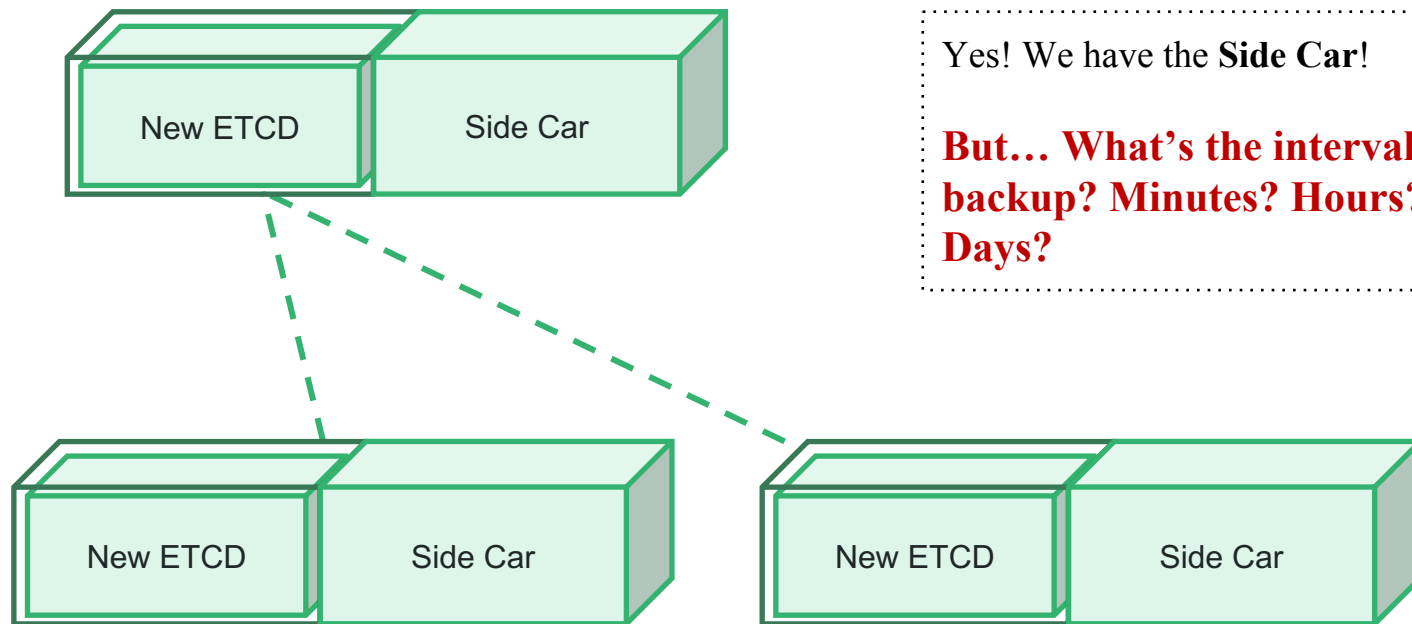






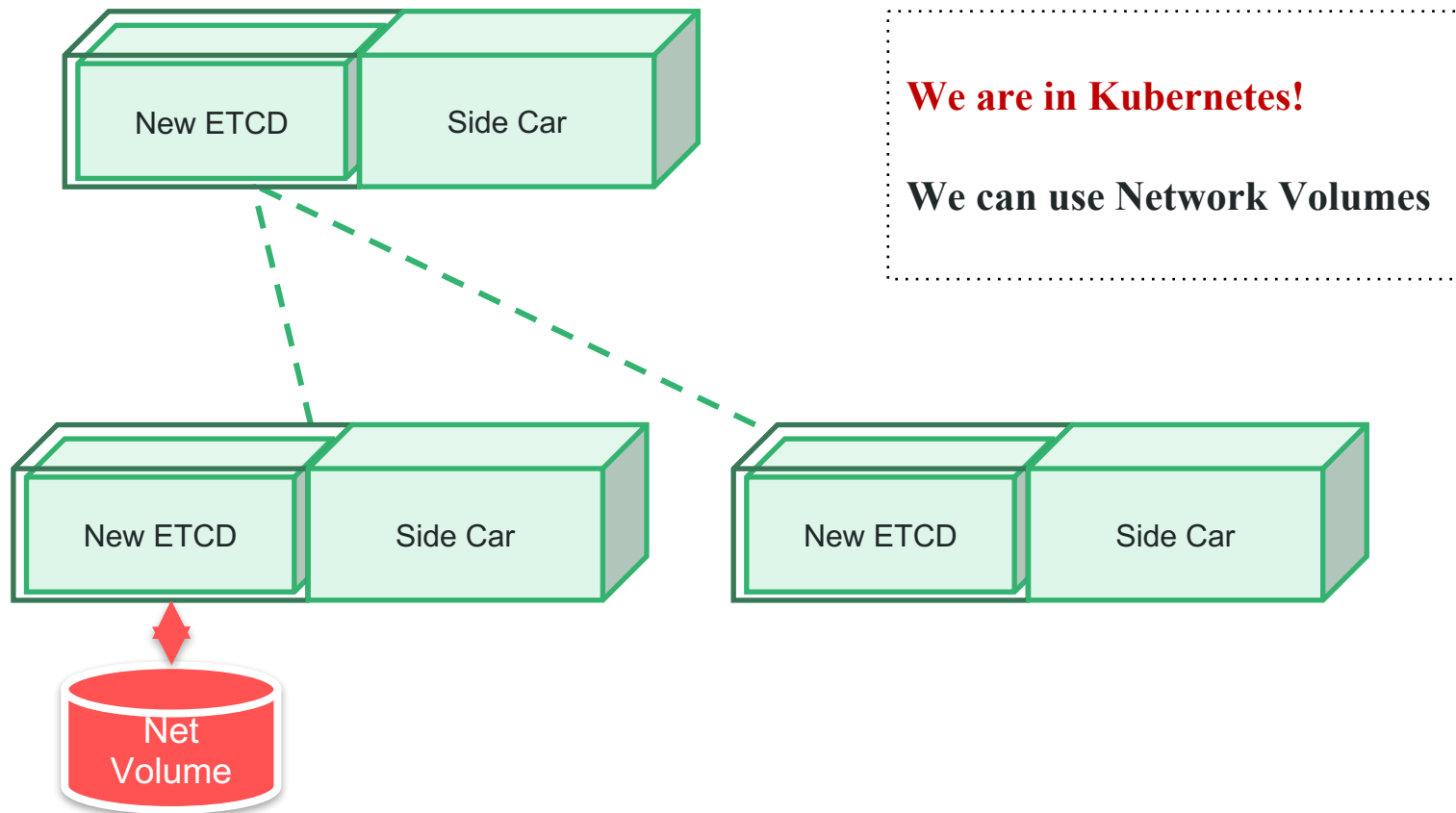
3 ETCD Servers, the VM reliability:
99.9999%

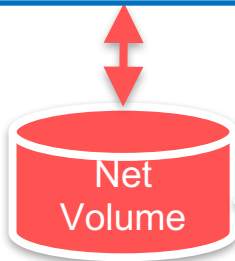
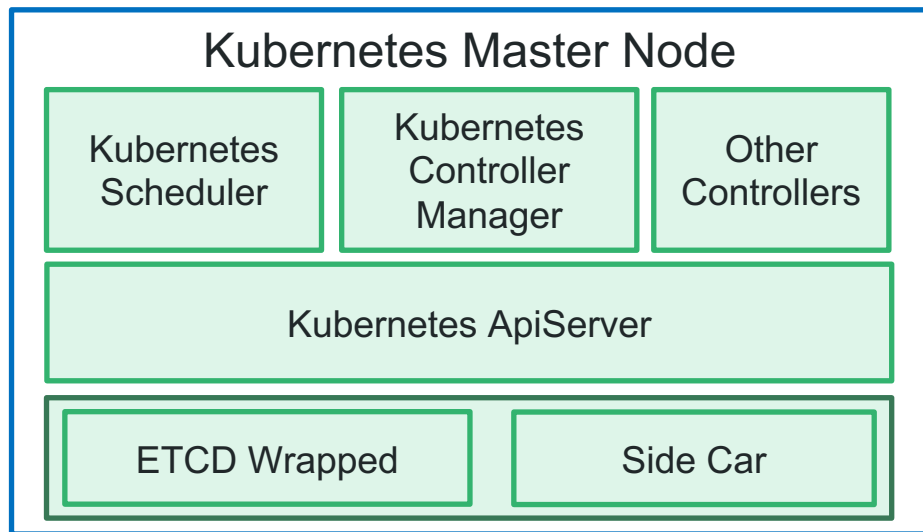
**How about the case which
happens on 0.01^3 ?**



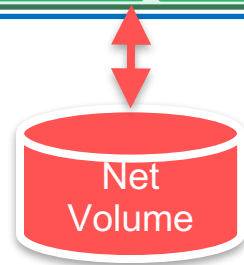
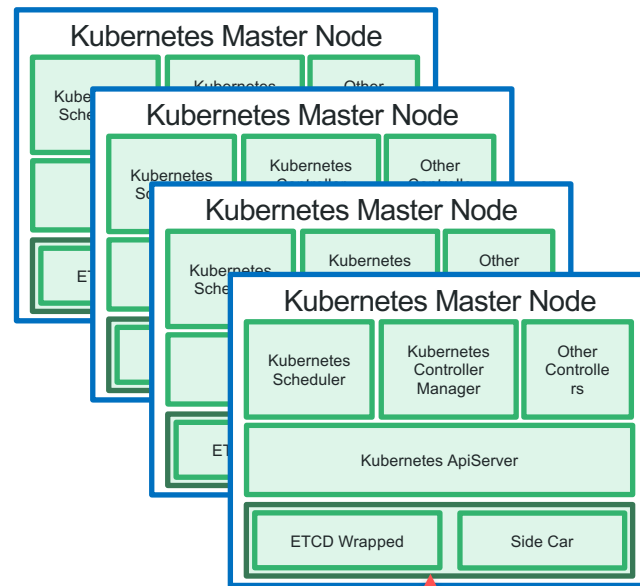
Yes! We have the **Side Car**!

But... What's the interval of backup? Minutes? Hours? Days?





Minority of ETCD servers on Network Volumes



Q&A