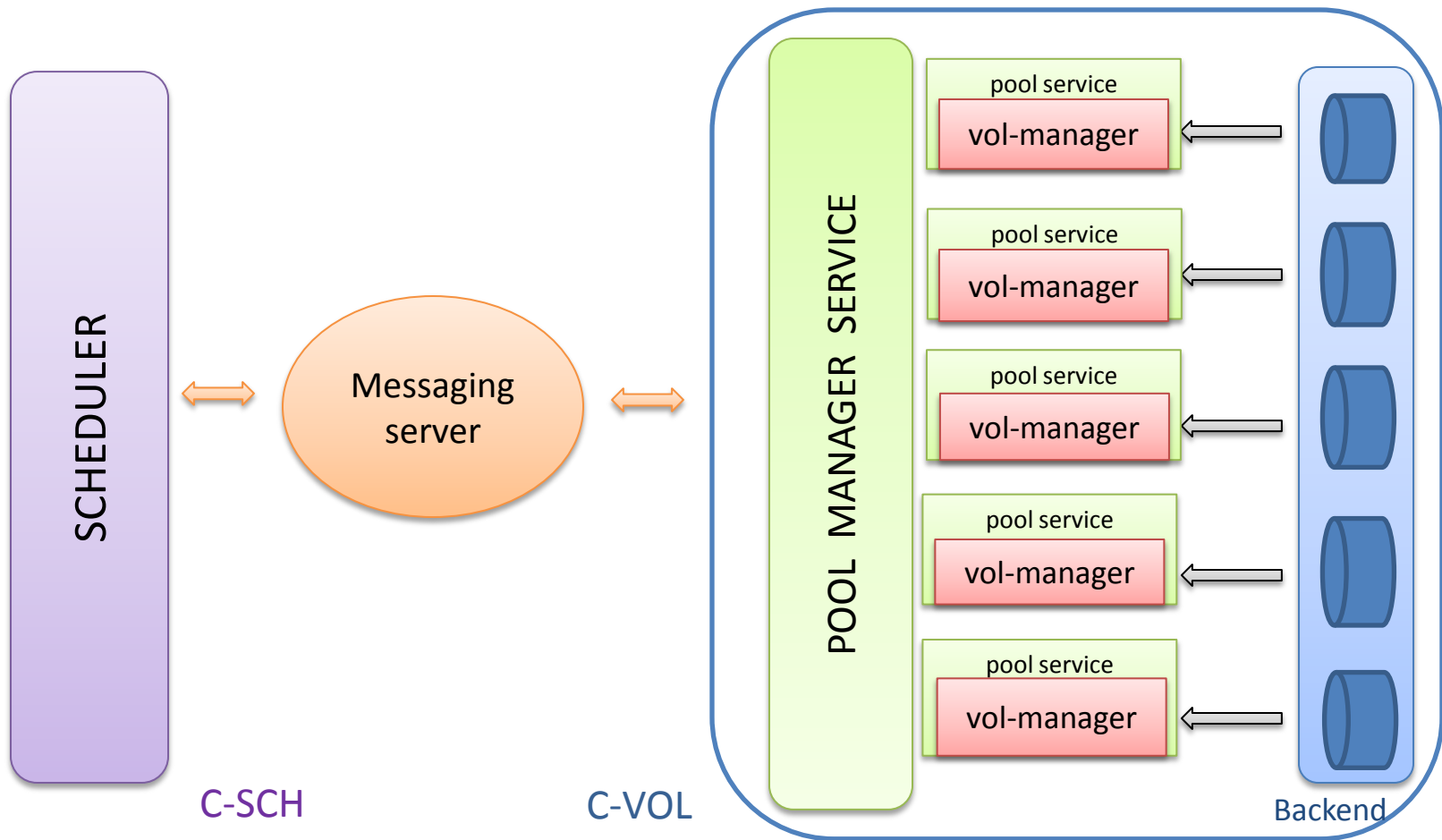# Multiple pools per backend

-Navneet Singh (NetApp)
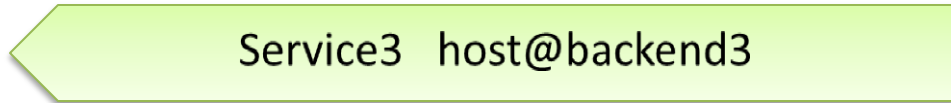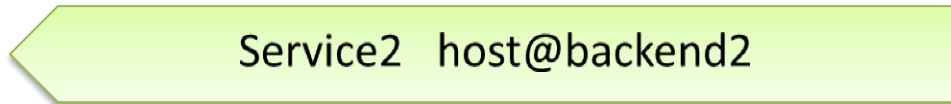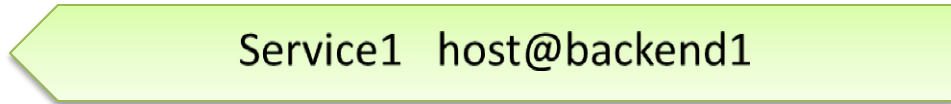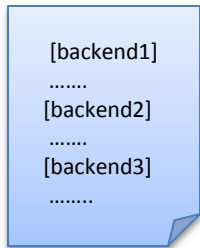
  email: singn@netapp.com

Multiple pools as schedulable entities

Present architecture

cinder.conf

[backend1]
....
[backend2]
....
[backend3]
....

cinder-volume

Service1   host@backend1

Service2   host@backend2

Service3   host@backend3

Multi-pool architecture

cinder.conf

[backend1]
....
[backend2]
....
[backend3]
....

cinder-volume

Pool manager Service - 1

get_pools

backend1

pools config

Service1   host@backend1@pool1

Service2   host@backend1@pool2

Pool manager Service - 2

get_pools

backend2

pools config

Service3   host@backend2@pool1

Service4   host@backend2@pool2

Pool manager Service - 3

get_pools

backend3

No pools

Service5   host@backend3
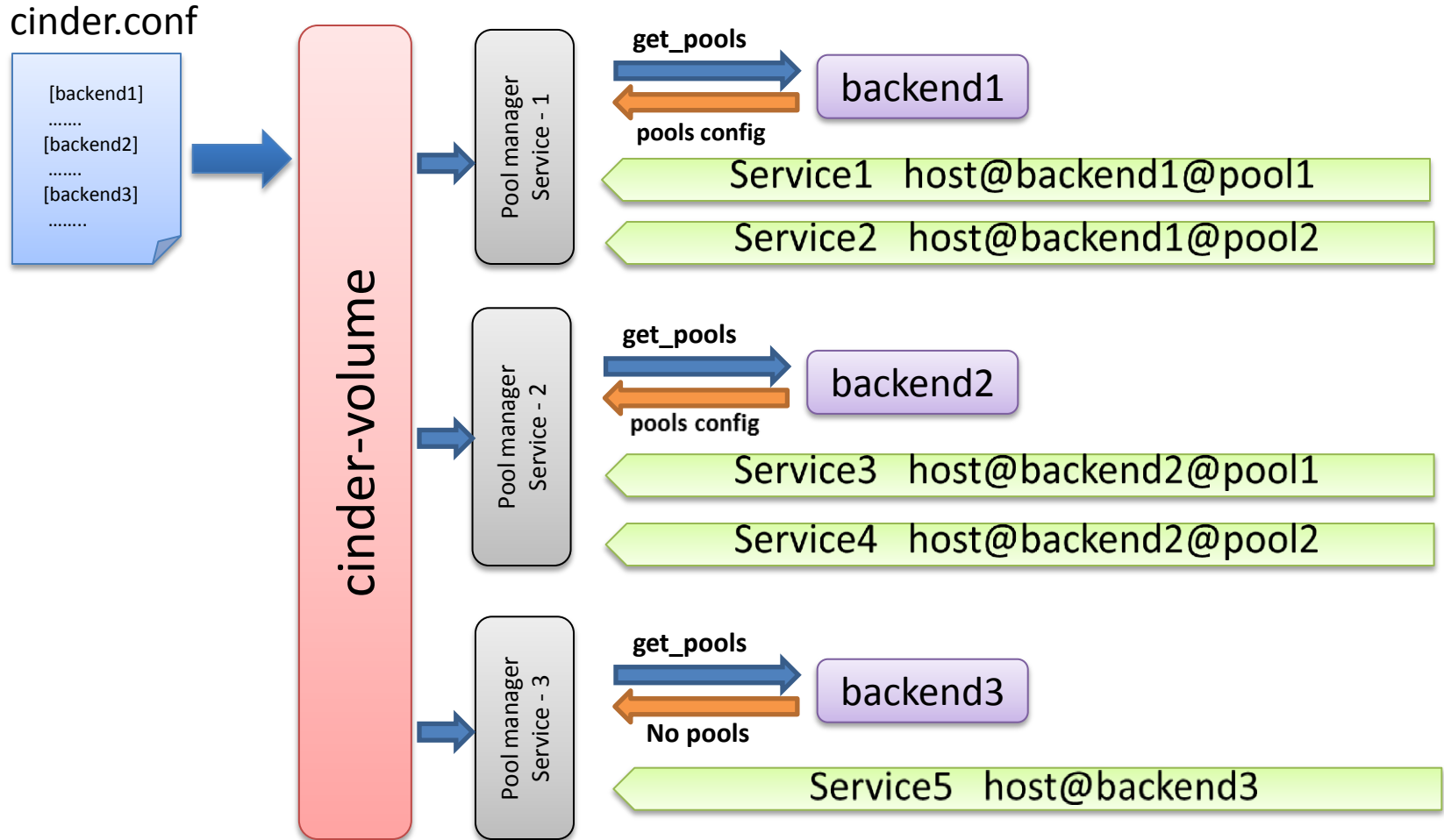
Concise configuration

Dynamic multi-pool

cinder-volume

Pool Manager Service

get_pools

pools config

Volume driver backend1

Service1   host@backend1@pool1

Service2   host@backend1@pool2

Service3   host@backend1@pool3

Service4   host@backend1@pool4

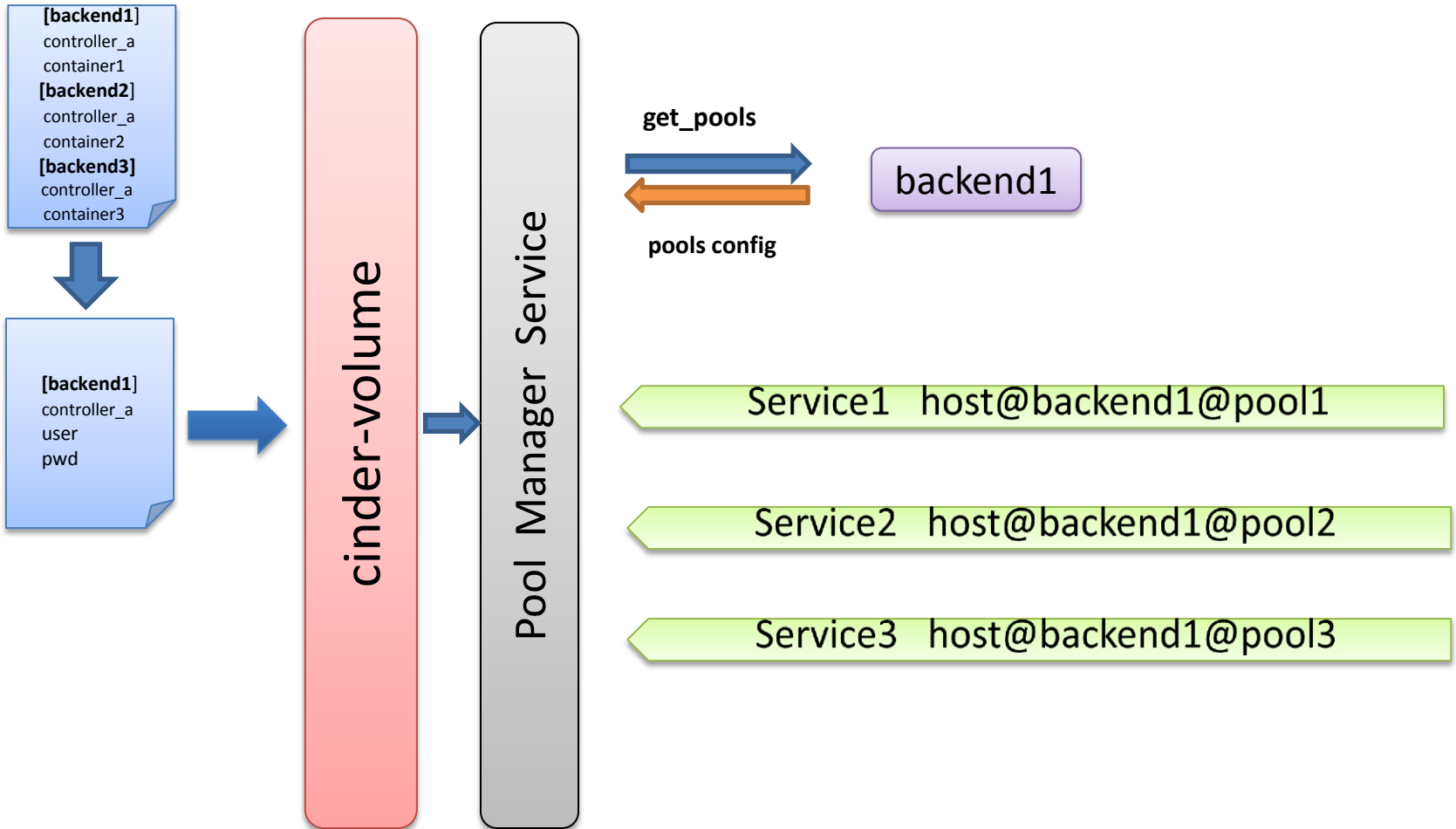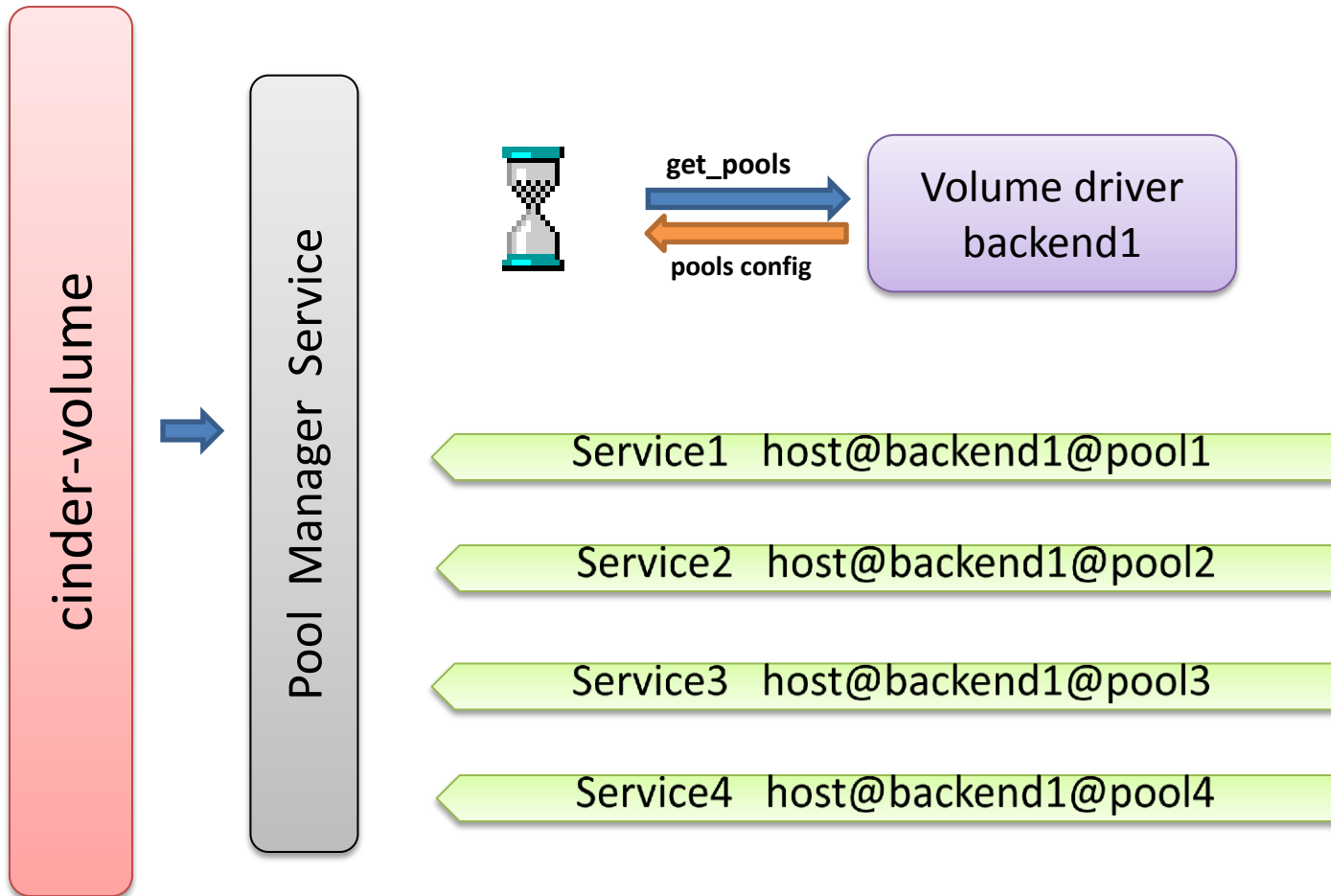# Pools config

```
{
  'pool_name1':          {
                          'container': 'c1',
                          'param': 'value'
                          },
  'pool_name2':          {
                          'container': 'c2',
                          'param': 'value'
                          },

  ……………………..
}
```

Upgrade multi-pool

Pool Manager Service

Query volumes for host: host@backend

volumes

get_pools(volume)

Volume driver backend

pool config

Update volume host as host@backend@pool

Cinder database