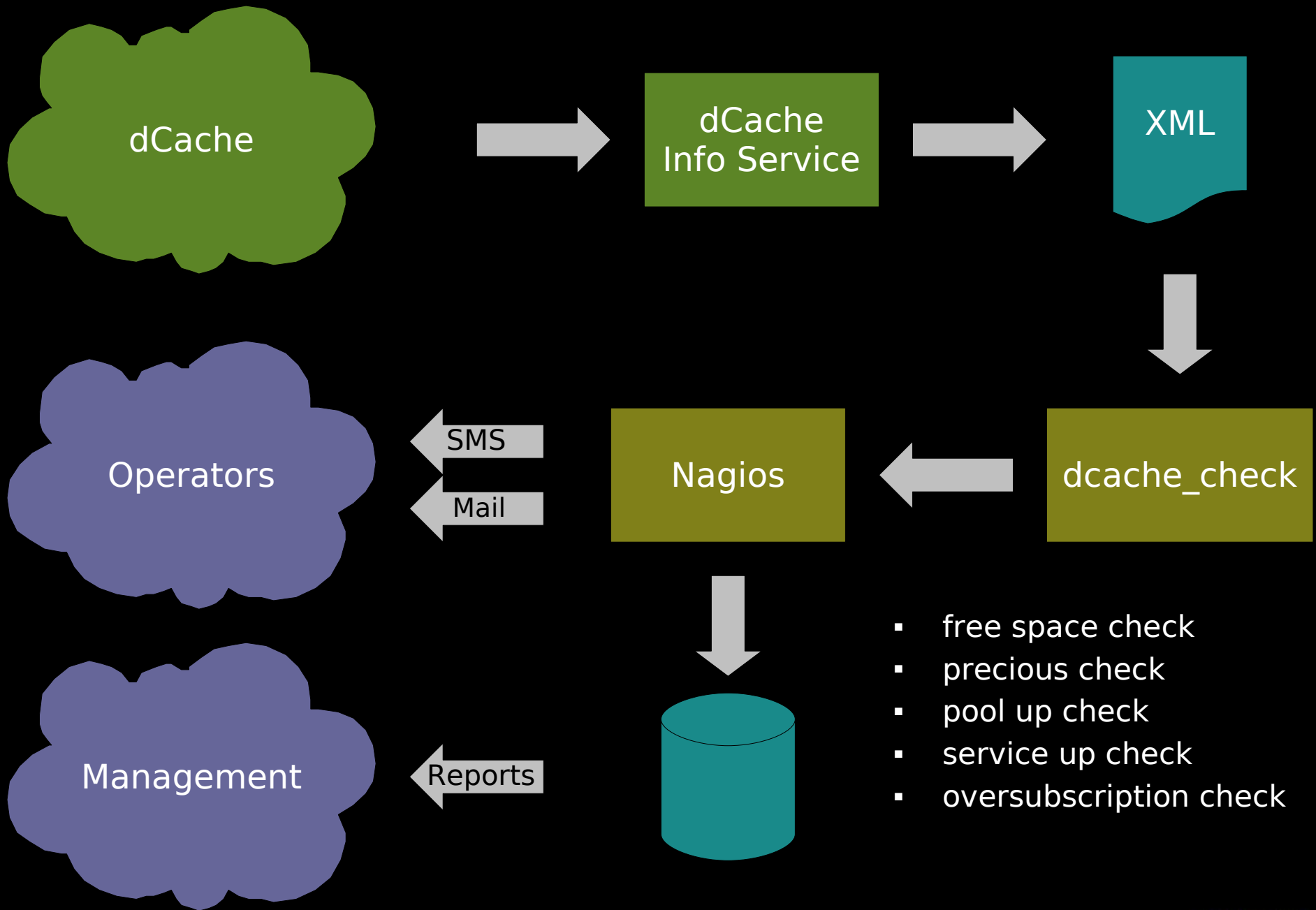


# NDGF contributions to dCache 1.9.1 and other stuff

Gerd Behrmann

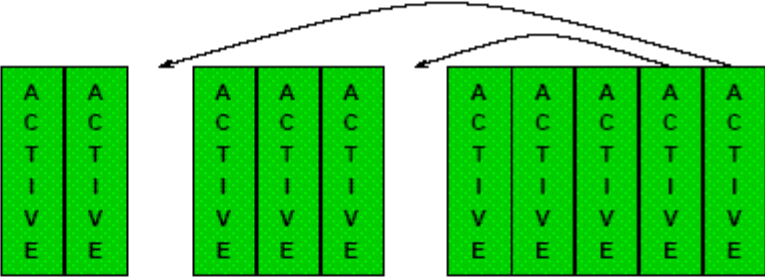


# VACUUM FULL

Original Heap  
With Expired  
Rows Identified



Move Trailing  
Rows Into Expired  
Slots

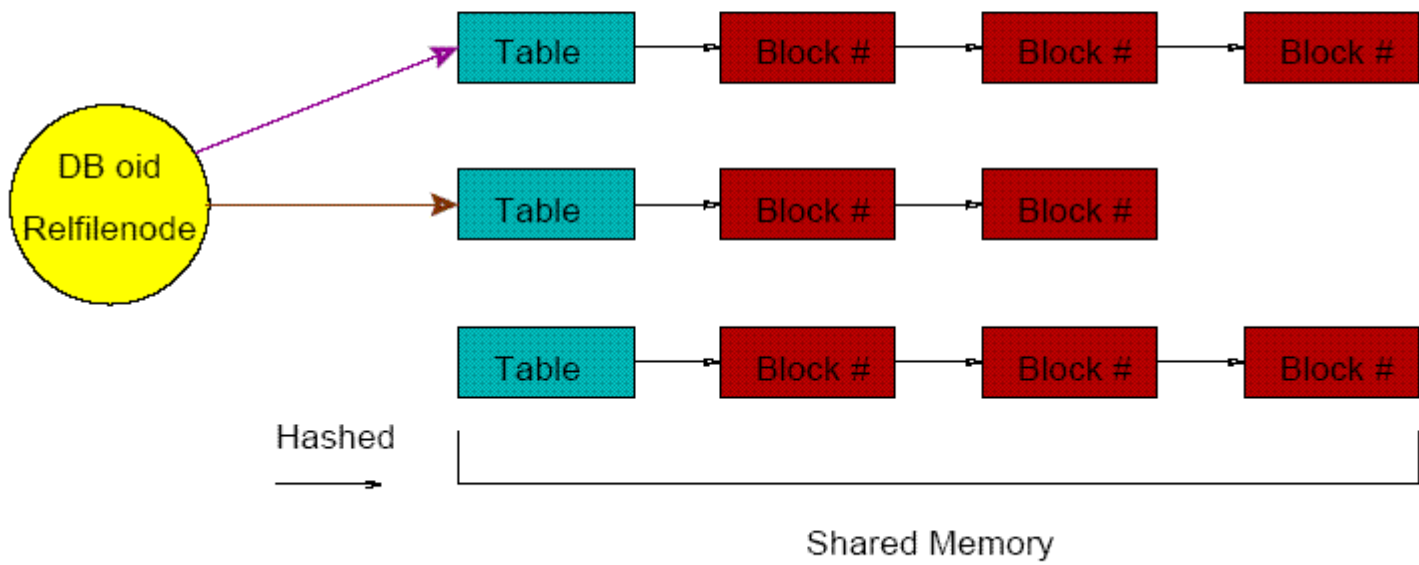


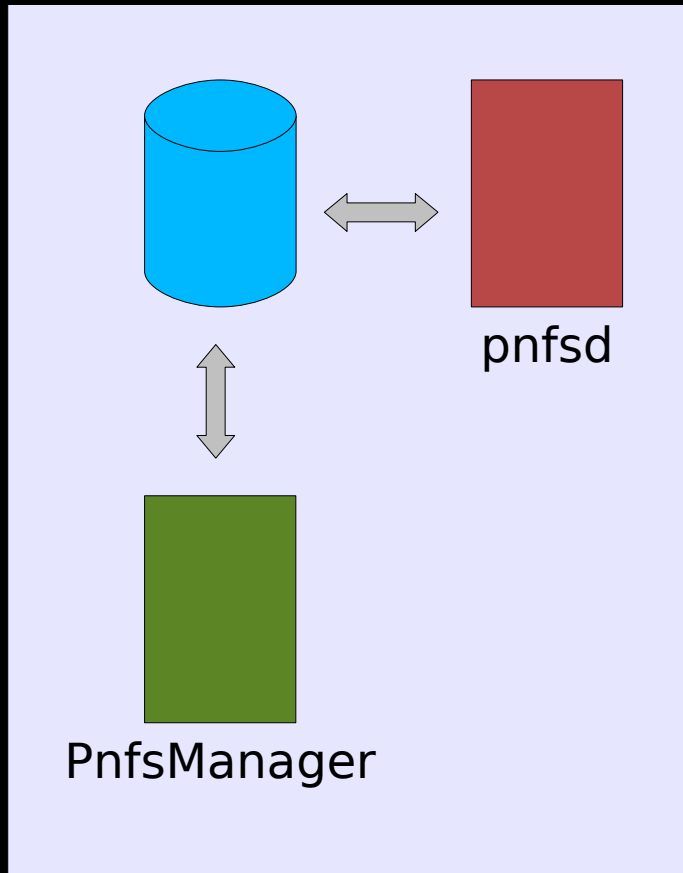
Truncate File



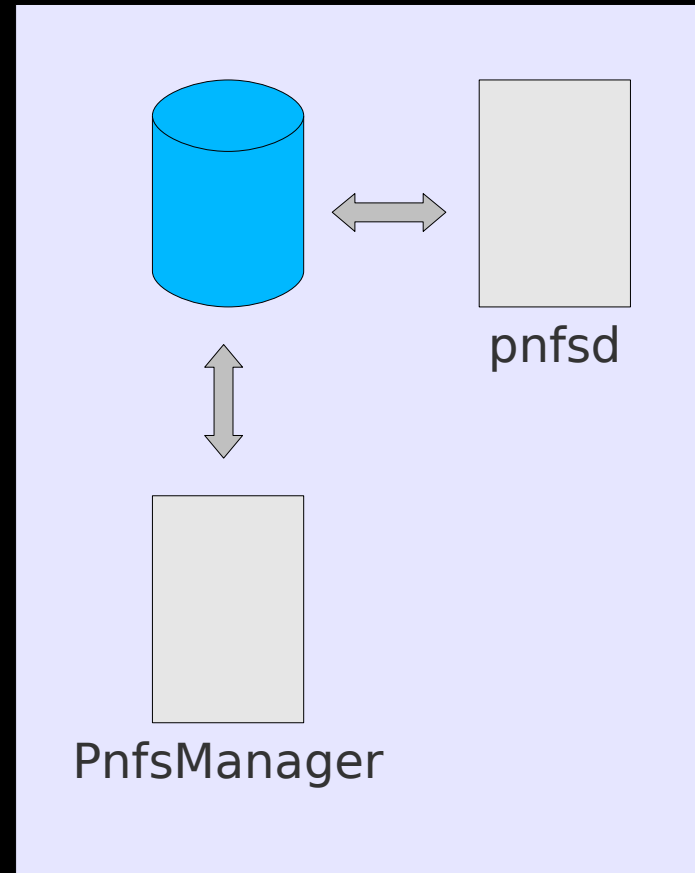
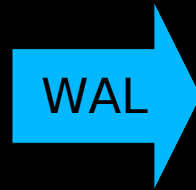
# VACUUM

## Free Space Map

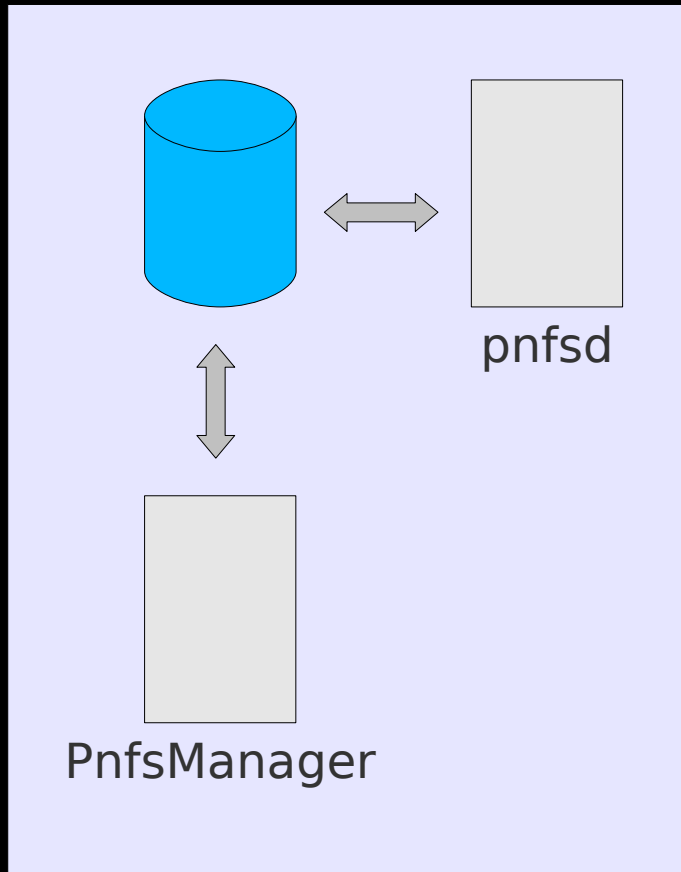




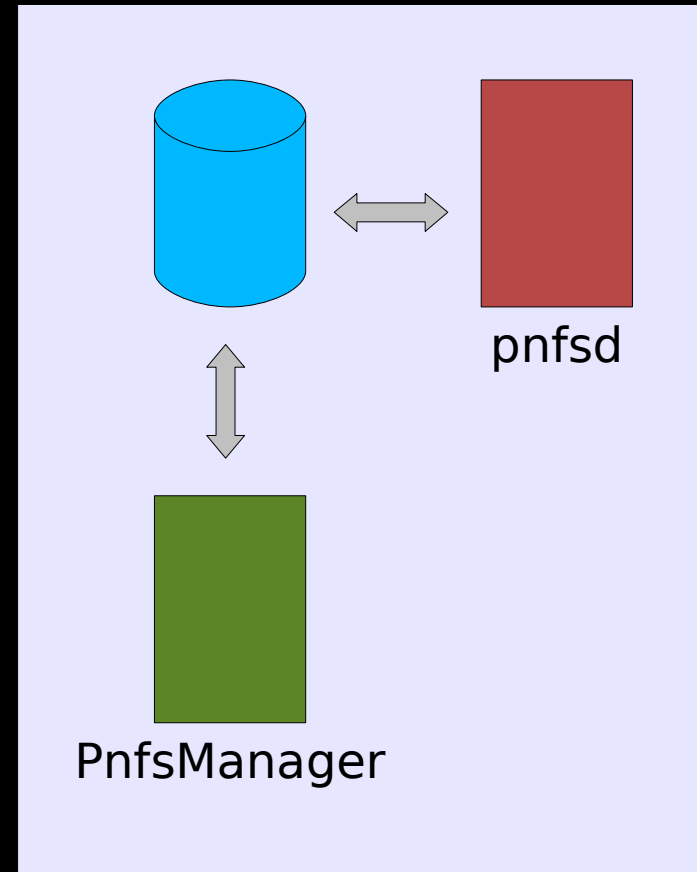
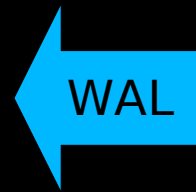
pnfs1



pnfs2

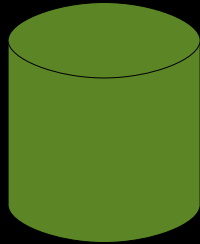


pnfs1



pnfs2

pool\_a



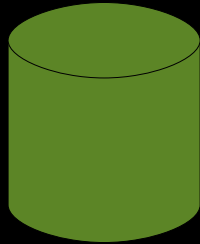
pool\_b



migration copy pool\_b

- Generates exact copy of files on the other pool, including the entry state.

pool\_a



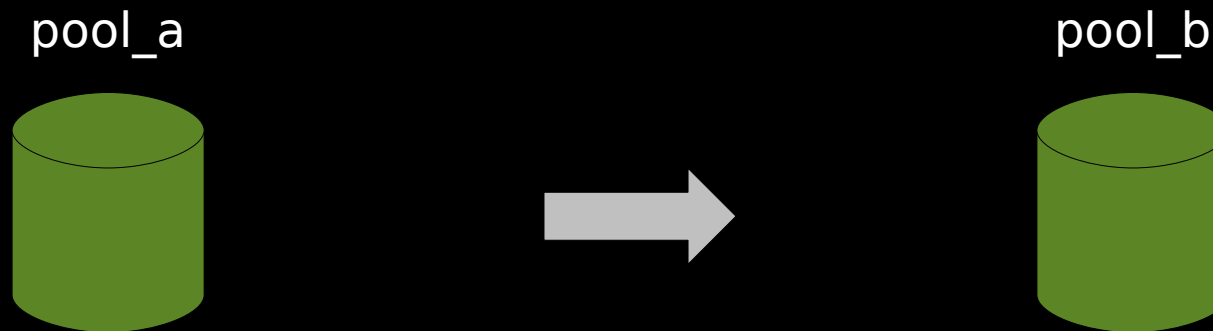
pool\_b



```
migration copy -state=precious -storage=atlas:default pool_b
```

- Can filter files on state, sticky flags, storage group and PNFS id.



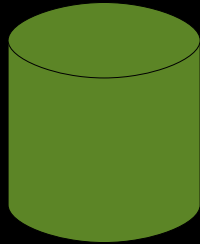


```
migration copy -smode=removable pool_b
```

- Can alter the state of the source copy.

```
-smode=same|cached|precious|removable|  
delete[+<owner>[(<lifetime>)] ...]
```

pool\_a



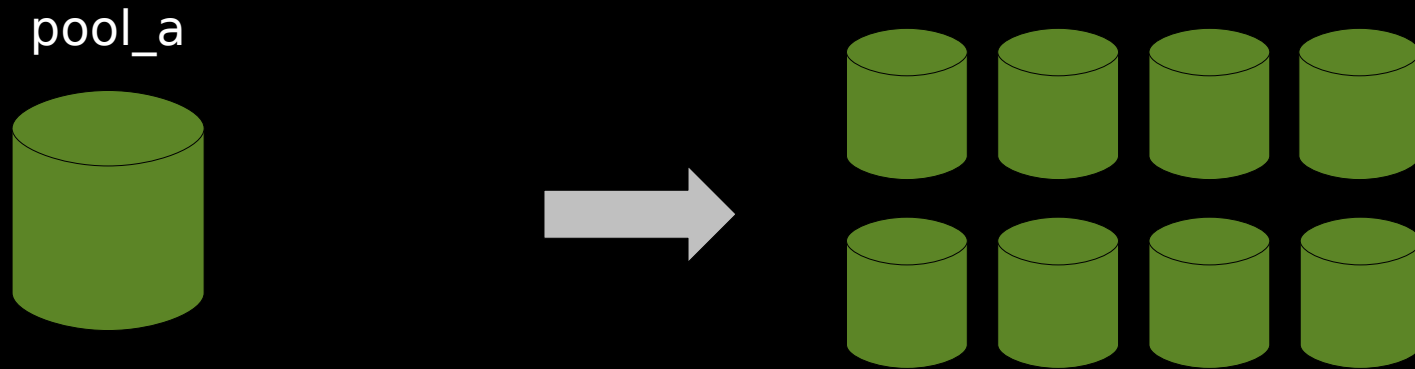
pool\_b



```
migration copy -tmode=cached+behrmann(51000) pool_b
```

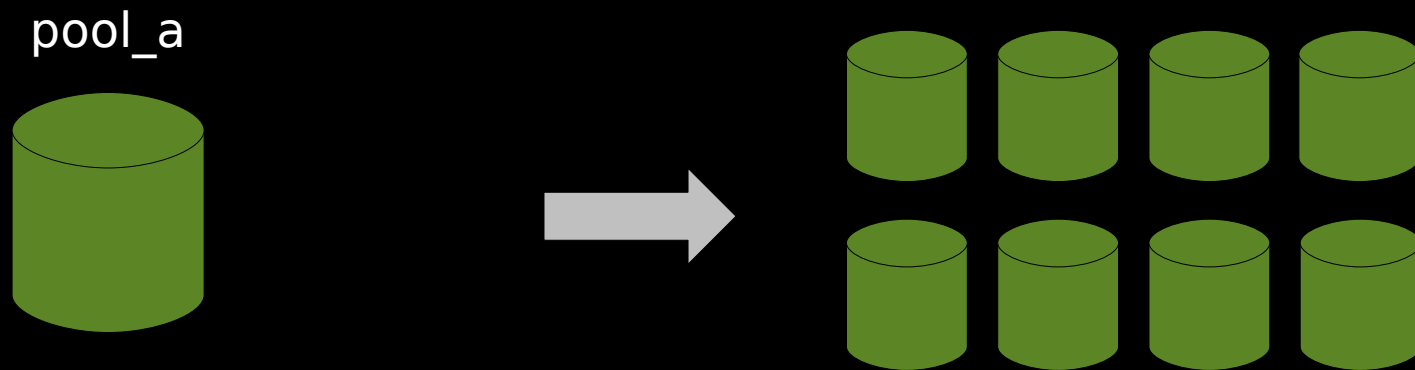
- Can set custom state for the target copy.

```
-tmode=same|cached|precious[+<owner>[(<lifetime>)] ...]
```



migration copy -target=pgroup atlas\_disk

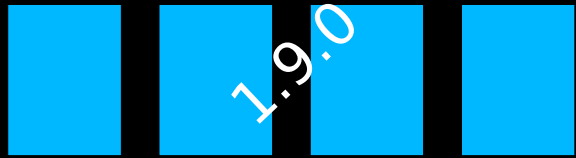
- Can transfer to pool group or link.



```
migration copy -target=pgroup atlas_disk  
migration copy -target=pgroup atlas_disk
```

- Operation is idempotent

## Head Nodes



## Pools

