

# Distributed File Systems

## Inzetbaar als data consistentie houder?

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# Inleiding

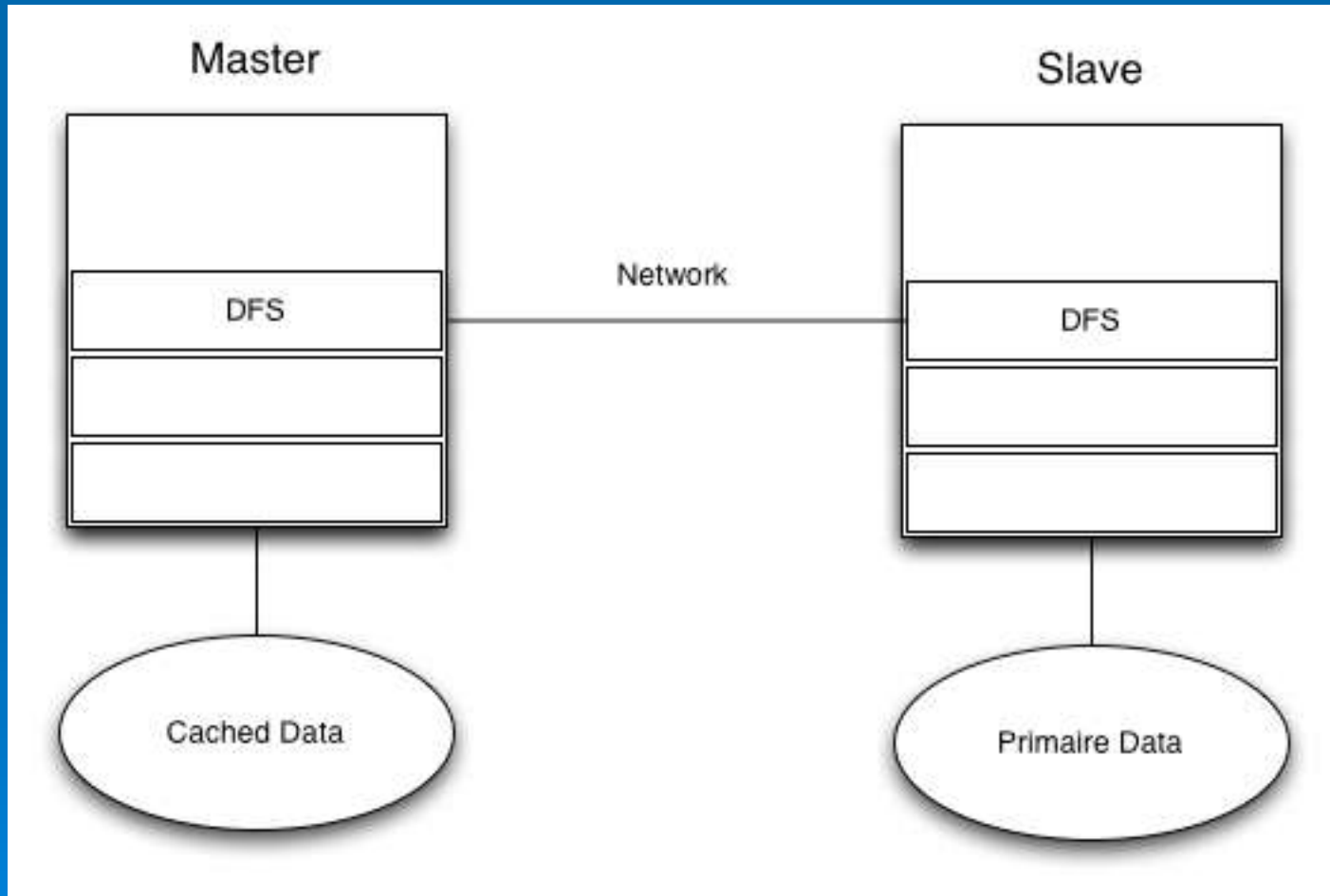
Inzetbaarheid DFS:

- Client-Server
- Server-Server

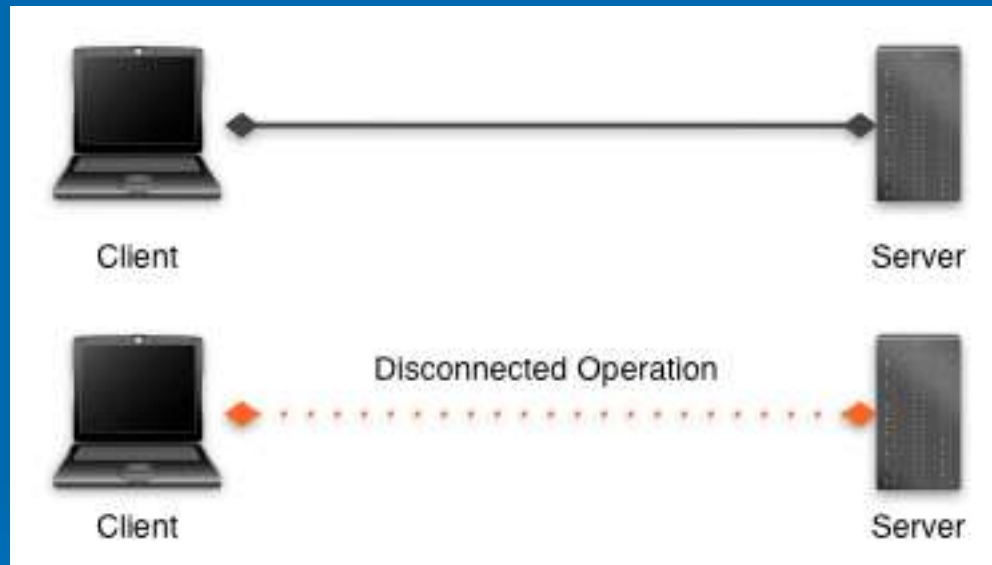
Performance:

- Bandbreedte en Latency
- Proof of Concept

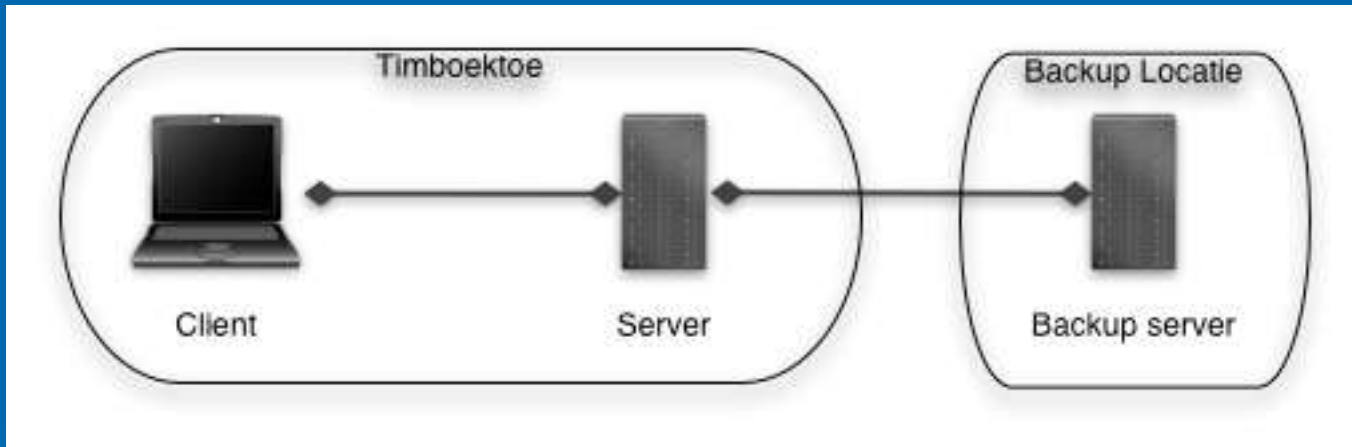
# DFS



# Situatieschets: Client-Server



# Situatieschets: Server-Server

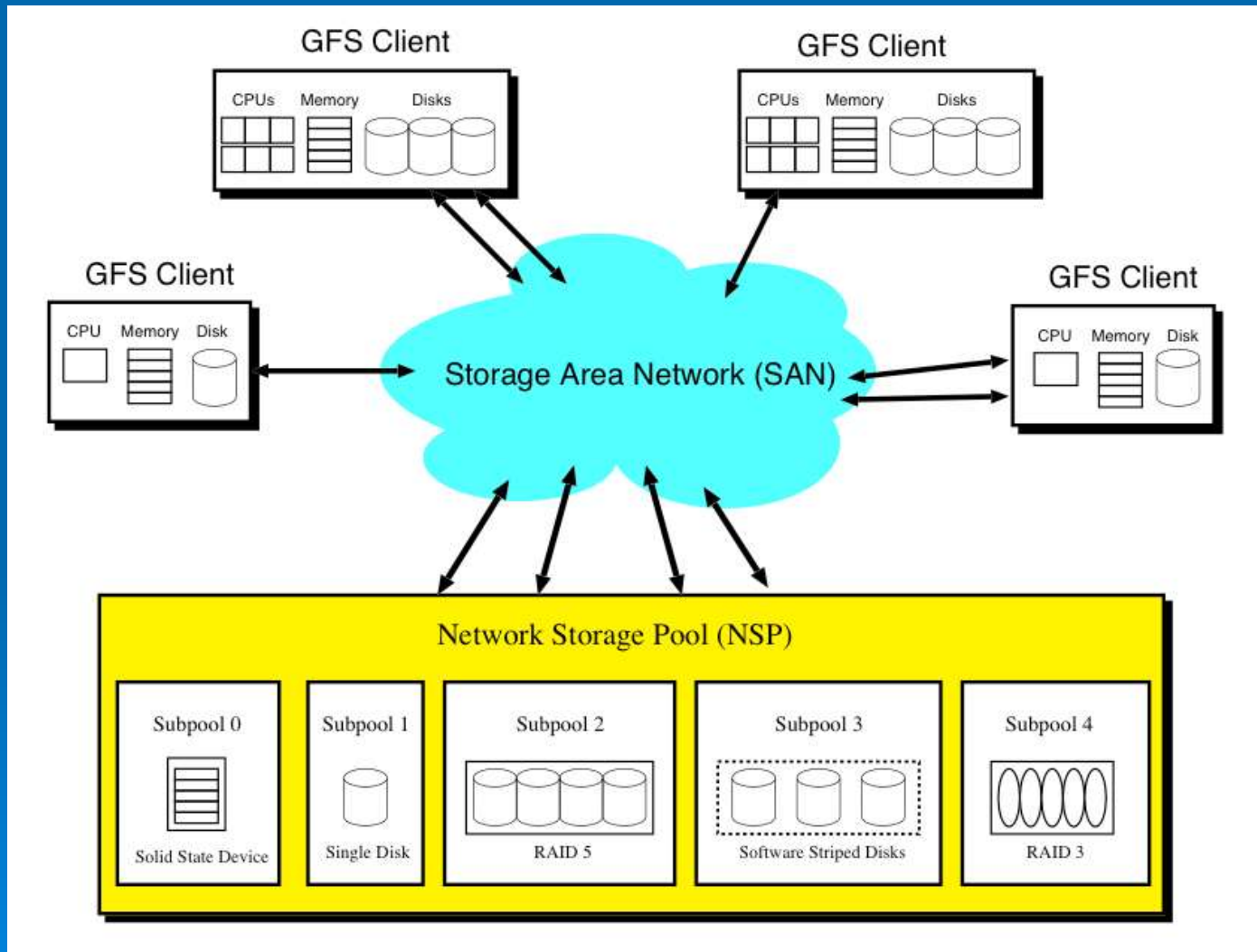


# Verschillende DFS producten

- GFS (Global File System)
- Coda
- Lustre



# GFS



# GFS

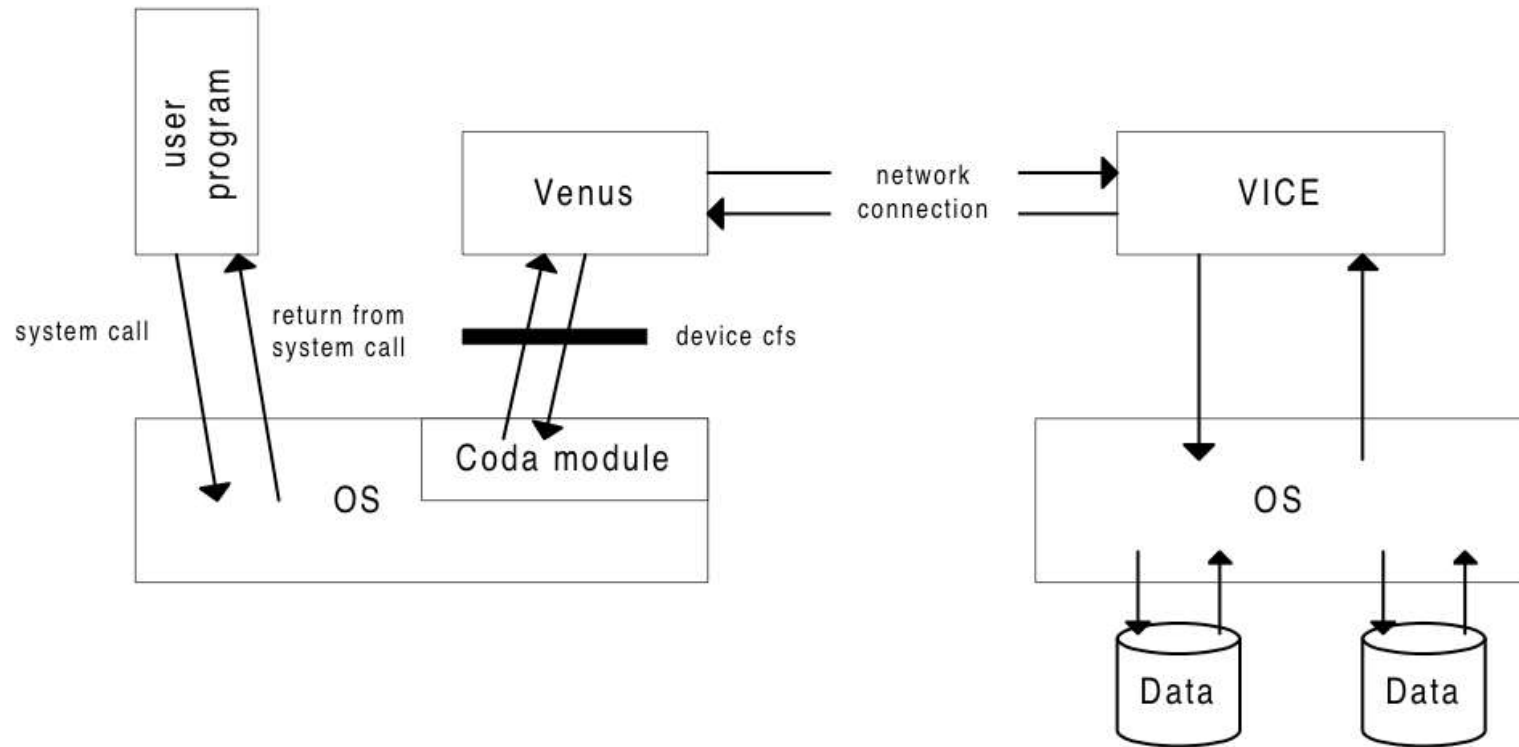
- Maakt opslagmedia bereikbaar
- Fibre of IP met bijvoorbeeld iSCSI
- Device Caching
- Locking mechanisme --> perfecte consistentie

Inzetbaar?

- Geen disconnected operation
- Geen server replicatie



# Coda



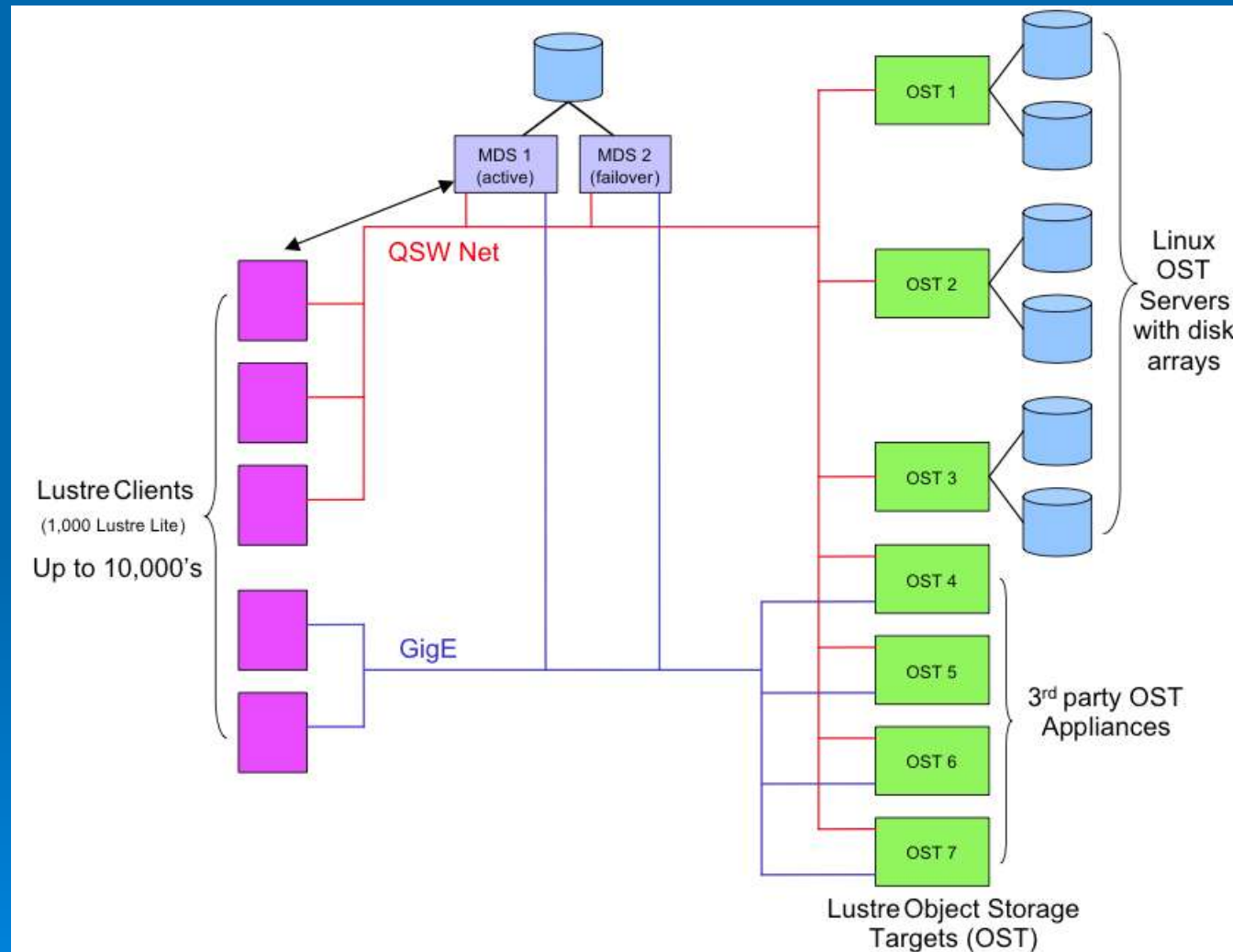
# Coda

- Ondersteund disconnected operation
- Client zorgt voor server replicaties
- Normale file tree

Inzetbaar?

- Wel disconnected operation
- Geen server replicatie

# Lustre



# Lustre

- Failover mechanismen
- Data op OST na uitval niet bereikbaar

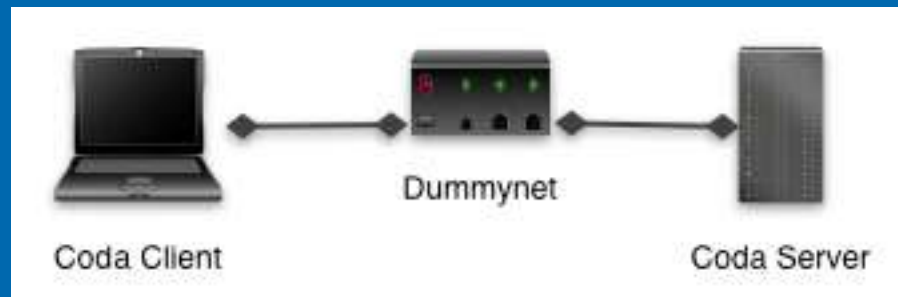
Inzetbaar?

- Geen disconnected operation
- Geen server replicatie

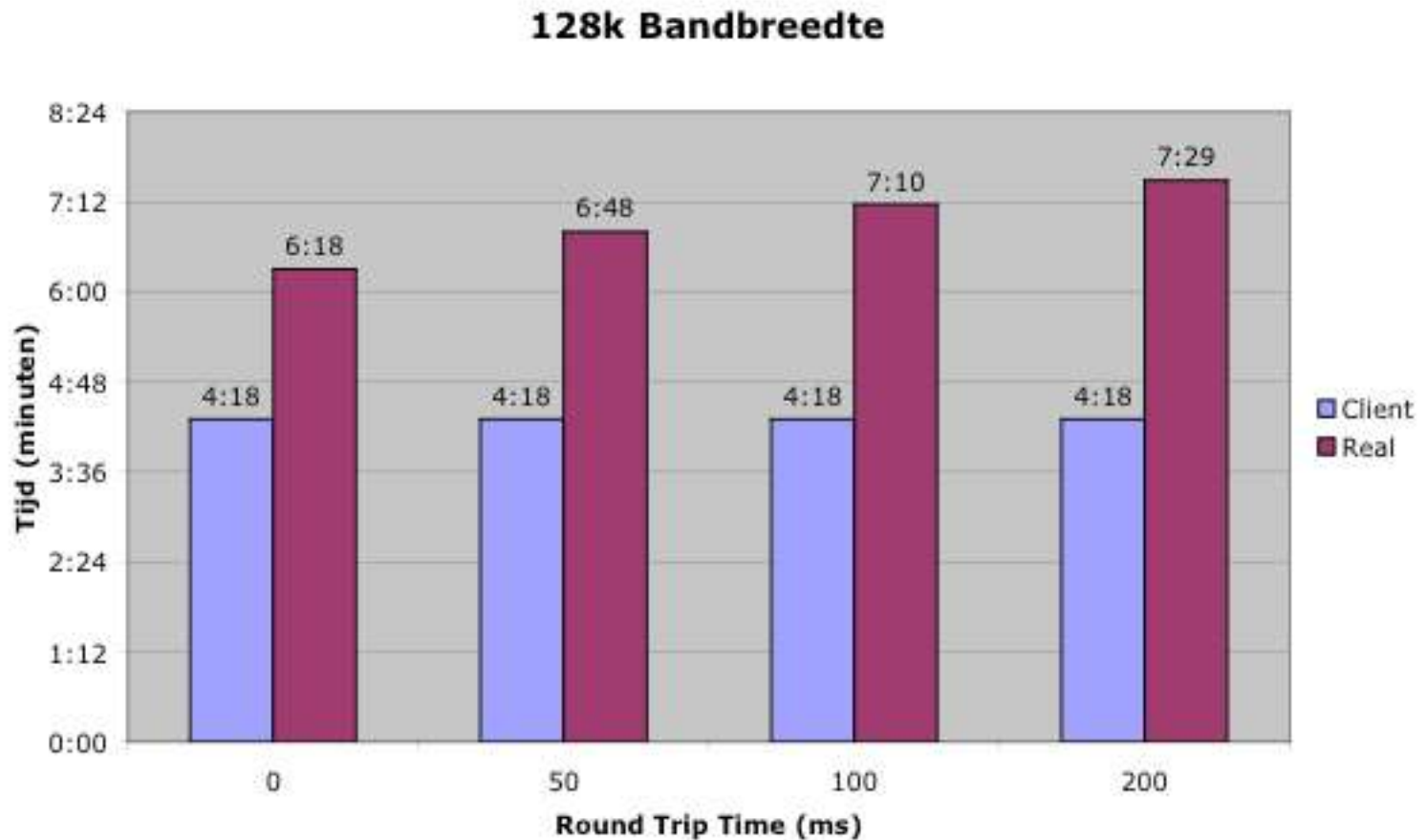
Toekomst:

- Disconnected operation
- Replicated OST Servers

# Proof-of-Concept opstelling

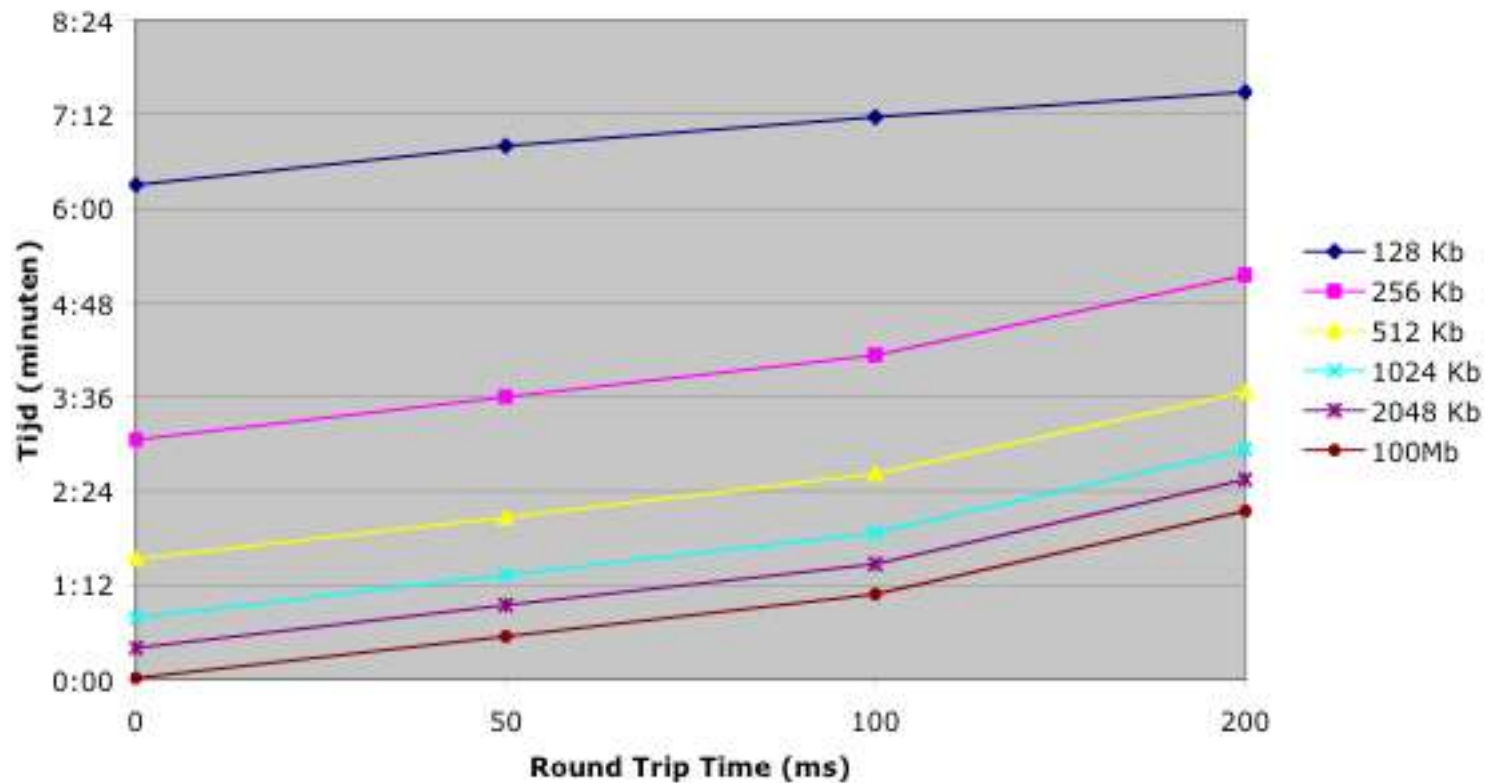


# Proof-of-Concept 128k



# Proof-of-Concept overzicht

Overzicht Bandbreedtes



# Samenvattend

- Client-Server
  - Coda
- Server-Server
  - Geen van de onderzochte DFS-en
- Lustre in de toekomst allebei
- GFS niet



