VOB backup at **Cognex**

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Goals:

1. Stable process for reliable VOB backup

2. Minimize VOB unavailability (VOB lock period)

3. Integrate with backup scheme provided by our Information Systems group

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Our ClearCase Environment:

- Ten to 20 VOBs, spread across five to ten VOBservers. Mostly dedicated Sparc10s, mostly in a single machine room, on FDDI.

- Four or five 8mm tape drives, and then Legato's Networker and multiple 8mm stackers.

- Cognoid working hours:
  - -Some start early, others work late (some do both)
  - -VOB locking is a problem

- Batch work load: builds and test runs that start after backups complete

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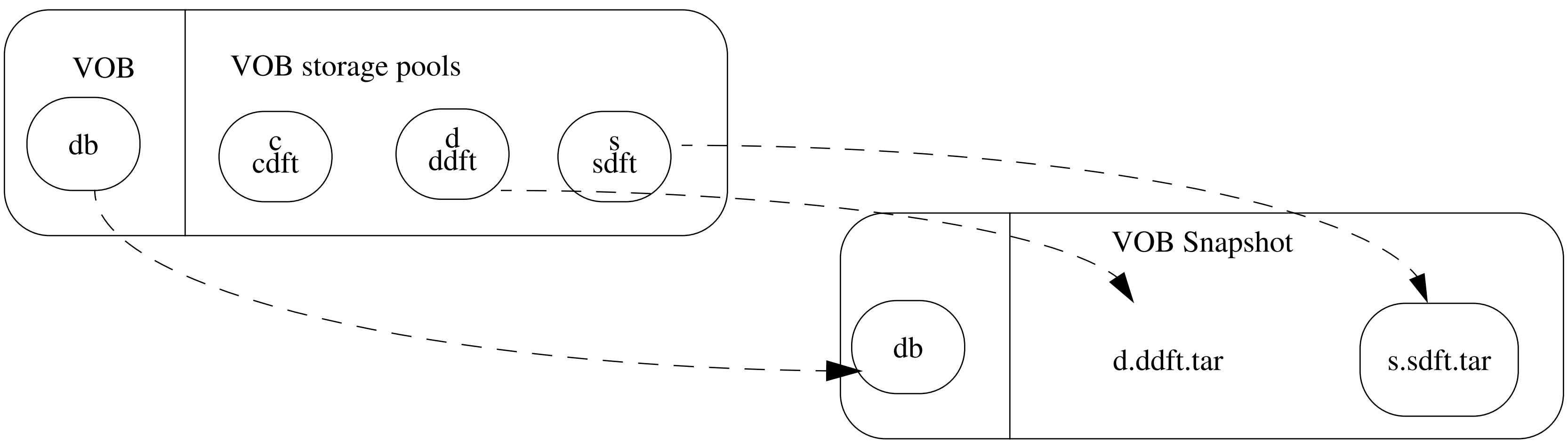
Approach:

- Test backup and restoration processes and tools by regularly restoring VOBs (on a machine in its own ClearCase registry region)

- Reduce VOB lock duration by copying the VOB storage to another disk.



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Approach (continued)**:**

- "Snapshot" the VOB:
  1. With the VOB locked:
     Copy VOB storage to another disk
  2. Copy snapshot to tape

- Reduce the number of files that Networker must archive and index by "gathering" each pool subtree into its own file. For example:

```
gnutar --create \
  --file /snapshot/research.snap/s.sdft.tar \
  /VOBstore/research/s/sdft
```

-this also reduces the duration of the lock on the VOB.

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Resource requirements:

1. About twice as much disk space

2. A script which:

   -Scans the VOB storage for each pool
   -Copies the VOB storage (without the pools)
   to the snapshot area
   -Gathers each pool
   -(optionally copies the snapshot to tape)
   -(optionally runs the shadower or scrubber)

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Alternatives:

- Use MultiSite to create the VOB snapshot
- Use disk replication (e.g. Mirroring) to create the snapshot

Neither of these methods reduce the number of files that must be archived and indexed by Networker.

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Futures

- Simplify the Snapshot/Recovery procedure by gathering all the VOB storage into a single tar file (possibly excluding the cleartext and/or the derived object pools)

- Unlock the VOB before DO pool snapshot (?)

- Suspend builds during VOB lock

- Instead of scanning the VOB storage, parse the output of "`cleartool lspool -long`"

- Locked View Backups?