AFS backup options

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Environment

- Existing IBM TSM

- Want to backup "AFS space"

- Don't want to use the bu service

- Could not find "product" to solve the problem

Alternatives

- Per volume
  + easy access to volumes
  + includes all metadata
  + small number of backup objects
  − must restore whole volume for single file restore − may waste space

- Per file

  + fine grain versioning

  + single file restore easy

  − tree traversal necessary

  − big number of backup objects

  − uses special software

Per volume (stage)

- vos dump to stage HD

- TSM archive from there

- Restore in reverse order

Per volume (direct)

- vos size (because of TSM API)

- vos dump | adsmpipe (strange IBM license)

- vos dump | tsmpipe (BSD style license)

  /afs/hpc2n.umu.se/lap/tsmpipe/x.x/src/dist/
  Niklas Edmundsson <nikke@hpc2n.umu.se>

Per volume details

- Backup dump naming by timestamp

  Zero dump: VOLUMENAME.00000000.20090601

  Inc dump: VOLUMENAME.20090601.20090604

- Backup decision done with (sh, awk) scripts which check for

  Last backup date

  Size (incremental vs full)

- Purge decision done with (sh, perl) scripts which generate a purge command that is checked manually.

Per volume todo

- Merge the different script versions

- vos dump | extract-something-intelligent | tsmpipe

- What are intelligent things? (checksums, mountpoints)

Per file backup

- IBM client still exists (on some unsupported version of AIX)

- "Ragge" is working on a replacement
  Anders Magnusson <ragge@ltu.se>

  - TSM restore compatible
    (Filespace, high- and lowlevel filenames)

  - API backup and dsmc restore is supported

  - dsmc backup and API restore is not supported

Per file details

- TSM objects in the database is defined by 4 entries
  TSM: nodename, filespace, highlevel filename, lowlevel filename
  Unix: hostname, mountpoint, path, filename

- How to map AFS files? Ragge decided:
  nodename: The backup host
  filespace name: /cellname[/fs-group]
  highlevel name: /volume/path-in-volume
  lowlevel name: /filename

Per file todo

- ACLs

- Contact Ragge for tests etc...

Thanks

- Questions questions?

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- Credits

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  Slides created with emacs and LaTeX