

First Aid Kit
some new tools to fiddle with
the not so trivial databases

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Low level tools

- tdbdump / tdbrestore
 - tdbtool
 - ctdb
 - dbwrap_tool
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Problems

- Mainly useful with string values
 - Intimate knowledge of samba internals required
 - Operations are not atomic
 - Awkward at best
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Outline

- Local tdb's of ctdb
 - Itdbtool dump / convert
 - Idmap
 - net idmap dump / restore
 - net idmap check
 - net idmap delete
 - Registry
 - net registry export / import
 - net registry check
 - net registry convert (off topic)
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Problem: ctdbs local tdb store a header for each record

- Convert between clustered and non-clustered
 - Convert between 32 and 64 bit format
 - Make a tdbdump / tdbrestore compatible dump
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Use case:

- migrate a tdb to a cluster
 - shutdown cluster
 - delete local copys of the tdb on all nodes
 - **convert non-clustered tdb to clustered on**
 - copy to **one** node
 - restart this node, wait until it became healthy
 - restart other nodes
 - Recovery does the work

- Checks
 - Valid mapping
SID ↔ [GU]ID
 - Invalid mapping
A → B → C
 - Missing link
A → B
 - Invalid record
- Run
 - default operation is readonly
 - Interactive or automatic repair on demand

net idmap delete

Problem: no notification of users deleted on the DC

- external magic needed
 - net idmap delete to delete the mapping from the tdb
 - smbcontrol idmap to notify smbd
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Registry import and export

Problem: filling a registry

- with net registry createkey / setvalue or rpc its slow
- not atomar

Solution: do it in a transaction

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.reg file

- widely used
 - but no specification available
 - different flavours
 - Regedit 4
 - Regedit 5
 - Wine
 - Samba ;-)
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- Checks
 - Registry keys have to be unique after normalisation
 - For each registry key exists a subkey list record
 - Each registry key is referenced in the subkeylist of its parent
 - Normalized value names are unique for each registry key
- Run
 - default operation is readonly
 - interactive or automatic repair on demand
 - works inplace or create a new registry.tdb

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