

# No DC Around, Now What?

## Protocols For Offline Support

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# Introduction

# About Myself

- ❑ Participant of the Google Summer of Code 2005-2007
- ❑ Wine developer since 2005
- ❑ Samba Team member since 2007

# The Samba4 Story

- ❑ Experimental branch
- ❑ Not intended for production
- ❑ Not going to be “the next Samba release”

# Offline Support

## Looking at files owned by others

- ❑ Want to translate SIDs used in ACLs
- ❑ Need to know user's group memberships

## Known user logs in

- ❑ Need to authenticate user
- ❑ Need to know user's group memberships



## Unknown user logs in

- Nothing we can do

Known, deleted user logs in

□ Nothing we can do

# Data Needed

- ❑ SID  $\Leftrightarrow$  Name mappings  $\Rightarrow$  SAMdb
- ❑ Authentication  $\Rightarrow$  PAC/INFO\_3

- ❑ SID  $\Leftrightarrow$  name mappings visible to all members
- ❑ Group membership information
- ❑ Can be replicated with DRS

# Getting the PAC

- ❑ Part of the user's TGT
- ❑ Cached
- ❑ Needs timeout

# Protocols Used

# Kerberos 5

- ❑ Unix single sign-on
- ❑ Used in Active Directory
- ❑ In AD, contains PAC
- ❑ PAC contains group information

- ❑ DCE/RPC-based protocol
- ❑ Used by Directory Replication Service



# Summary

- ❑ Support for common scenarios
- ❑ Caching also takes load off the DC
- ❑ Good for clusters

# Thank you

# Questions?