# CIFS ON OPENVMS

*Tips and Hints*

Paul Bakker, Hans Hosang.
Platform Integration Competency Center.

# Agenda

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# Advanced Server for OpenVMS

- New Version: V7.3B eco 1 (includes 21! Patches)

- New ps001 for V7.3B eco 1 to fix oplocking problems with Windows7 and Vista clients.

  – Creating a directory takes 30+ seconds!

- Latest official supported client: Vista! (Windows7 works as client for memberserver not as domain member in AS domain)

- For windows 2008R2 domain: Domain policy needs to be adjusted!

- Contact HP support.

# Cifs Versions

- Current Version : V1.2 PS003

- Expected Version V1.2 eco 1 in November 2011 CD release.

- Important patches:
  - Latest OpenVMS patch kits
  - CRTL patchkit for OpenVMS V8.4 (downloaded from ftp.usa.hp.com)
    - Needed for shadow disks
    - Needed for problems of looping smbd processes (locking issue)
  - Kerberos patch. (downloaded from ftp site)
    - Only needed when security = ADS
    - Needed when users are member of many domain groups
    - Needed for W2k8R2 domain

# Cifs V1.2 new features.

- ## Completely rewritten smbconfig
  - Preferable above swat.
    - Tuned for OpenVMS (clusters)
    - Do not mix usage Swat and smbconfig!
  - Split smb.conf in several different files
    - Smb.conf                        Contains call to all other .conf files and all share definitions
    - Core_smb.conf              Name, Role, Winbind, logging and printing parameters, domain controller
    - Generic_smb.conf          Wins Server,  Character set, Print command
    - <nodename>_specific_smb.conf  # of clients, interface
    - Admin_users_smb.conf      defines Cifs priviledged users

- ## Smbmanage (configuration tools for users, groups and shares)

# ODS2 vs ODS5 filenames

- On ODS5 one can use extended characters in filenames.

- ODS2 only supports uppercase.

Client          ODS2                    ODS5            ODS2 to ODS5 converted filename

één.txt    __C9__C9N.TXT          één.txt                    ÉÉN.TXT

To convert files from ODS2 volume to ODS5 naming format:

$ ods2_convert </disable=struct>* __C9__C9N.TXT


* = needed when file is copied to ODS5 from ODS2 source.

# Character set configuration (1)

- Default CIFS configuration (smbconfig select ASCII)
  - Client = ASCII and Server = UTF-8

Filename

| Client | Server | smbclient or smbstatus |
|--------|--------|------------------------|
| ñöûé.XLS | Ã±Ã¶Ã»Ã©.XLS | C1C6C;C).XLS |
| ____.XLS | ñöûé.XLS | ____.XLS (file created by Adv Serv) |

- Mark: client displays _ (underscore) when character can not be translated.

# Character set configuration (2)

- smbconfig select CP850
  - Dos charset = CP850
  - Unix charset = ISO-8859-1

Filename

| Client | Server | smbclient or smbstatus |
|---|---|---|
| ñõûé.XLS | ñõûé.XLS | qv{i.XLS |
| Ã±Ã¶Ã»Ã©.XLS | Ã±Ã¶Ã»Ã©.XLS | C1C6C;C).XLS  (file created with defaults) |

# Character set configuration (3)

- smbconfig select CP850
  - Dos charset = CP850
  - Unix charset = ISO-8859-1
  - Display charset = ISO-8859-1

Filename

| Client | Server | smbclient or smbstatus |
|---|---|---|
| ñöûé.XLS | ñöûé.XLS | ñöûé.XLS |
| Ã±Ã¶Ã»Ã©.XLS | Ã±Ã¶Ã»Ã©.XLS | Ã±Ã¶Ã»Ã©.XLS |

- Need convert program when move from default to this configuration.

# Mapping OpenVMS resource identifiers to Windows groups

- Can only be done using local groups

Mc authorize show/ident hansread

| Name | Value | Attribute |
|------|-------|-----------|
| HANSREAD | %X80123456 | RESOURCE |

$ net groupmap add unixgroup=hansread type="L" ntgroup=lhansread

- Creates a local group named lhansread

- Now add members:

$ net groupmap addmem <groupsid> <domain user/group sid>

Use wbinfo –n (--name-to-sid=name) to find <domain user/group sid>

Alternative: smbmanage ->

# smbmanage

 HP OpenVMS CIFS Server Management Main Menu

Management options:

      1  - Manage Shares
      2  - Manage Groups
      3  - Manage Users
      4  - Manage Account Policies

    [E] - Exit

Enter CIFS Server management option: 2

# smbmanage (2)

HP CIFS Server Group Management Menu

   Group Management Options:

     1 - List groups
     2 - Add group
     3 - Remove group
     4 - List group members
     5 - Add group members
     6 - Remove group members

    [E] - Exit

Enter group management option: 2

# smbmanage (3) create local group

HP CIFS Server Group Account Creation Menu

     1. CIFS Server NT group name (*):

     2. OpenVMS resource identifier name (*):

     3. Group account description:

     * = required field

Enter item number or press Enter to accept current values [Done]: 1 2

Group name specifies a 1 to 256 character name for the group
to be added. A group name cannot be identical to any other
group or user name of the domain or server being administered.

Enter NT groupname: lhansread
Enter group name: hansread
No rid or sid specified, choosing a RID
Got RID 1002

# smbmanage(4) add user /group to local group

HP CIFS Server Group Management Menu

Group Management Options:

1  - List groups
2  - Add group
3  - Remove group
4  - List group members
5  - Add group members
6  - Remove group members

[E] - Exit

Enter group management option: 5
    Enter group name: lhansread
    Enter group member name: amvw2k3\hansread

Added AMVW2K3\hansread to PWOP07\lhansread

# smbmanage (5)

- smbmanage uses net groupmap commands.

- Alternative commands: Net rpc groupmap

- Advantage: can be used using names instead of sids

- Disadvantage: restrictions regarding interface limitations  (command uses 127.0.0.1 interface)

# TDB files (samba$root:[var.locks])

- Permanent files
  - Nt*.tdb
  - Share_info.tdb
  - Account_policy.tdb
  - Winbindd_idmap.tdb *
  - Group_mapping.tdb
  - Secrets.tdb
  - Registry.tdb
  - Passdb.tdb

  Make backup of these files (tdbbackup)
  **\* This file is created based on history!**

- Temporary files (may be deleted)
  - Brlock.tdb
  - Browse.dat
  - Connections.tdb
  - Gencache.tdb
  - Locking.tdb
  - Messages.tdb
  - Sessionid.tdb
  - Netsamlogon_cache.tdb
  - Unexpected.tdb
  - Winbindd_cache.tdb

# Test commands

- Smbver

- Pipe testparm –d0 –v |search sys$pipe

- Smbshow

- Smbstatus

- Nmblookup

- Smbclient

- Net ads/rpc testjoin

- Net rpc info "-U" <domusername>

- Wbinfo

# Testing configuration

- To test connectivity to local system use smbclient:

$ smbclient **–d5** - -list \\\<servername>    ← debug level 5 for command if failures

```
Domain=[AMVW2K3] OS=[OpenVMS] Server=[Samba 3.0.28a]
        Sharename       Type      Comment
        ---------------------   ----------   -------------------
        kits            Disk
        testods5        Disk
        testods2        Disk
        IPC$            IPC       IPC Service (Samba 3.0.28a running on pwop07 (OpenVMS))
        GUEST           Disk       Users homes share

Domain=[AMVW2K3] OS=[OpenVMS] Server=[Samba 3.0.28a]
        Server                  Comment
        -------------------          -------------------
        AMVW2K3DC1
        PWOP07                  Samba 3.0.28a running on pwop07 (OpenVMS)

        Workgroup               Master
        --------------------          -------------
        AMVW2K3         AMVW2K3DC1
```

# Testing configuration (2)

- To test user access
  $ smbclient "-U" <username> \\<servername>\<sharename>
   Password:

      Domain=[AMVW2K3] OS=[OpenVMS] Server=[Samba 3.0.28a]
  smb: \> get XPADDR.TRC
  getting file \XPADDR.TRC of size 17173 as XPADDR.TRC (78.7 kb/s) (average 78.7 kb/s)

- Test computer account of Cifs server

      $ net ads/rpc testjoin                    ← ads: security=ads     rpc: security=domain

- Name resolution problems using wins:

$ nmblookup -d0 "-U" 172.17.200.209 "-R" pwopclu
   querying pwopclu on 172.17.200.209
   172.17.200.174 pwopclu<00>
   172.17.200.175 pwopclu<00>

# Information

Support group:

Platform Integration Competency Center

Hans Hosang
Henk Sloot
Paul Bakker

FTP site:

[ftp.usa.hp.com](ftp.usa.hp.com) (15.192.32.78)

Username: pathwork

Password: Support9