

Migrating HP Advanced Server for OpenVMS to HP OpenVMS Common Internet File System (CIFS) Based on Samba

Migration Guide

December 2007

This document describes how to migrate user accounts, group accounts, file and print shares, and their security information from HP Advanced Server for OpenVMS to HP OpenVMS CIFS.

Operating System:	OpenVMS Alpha Versions 8.2 and 8.3 OpenVMS Integrity servers Versions 8.2-1, 8.3 and 8.3-1H1
Software Version:	HP OpenVMS CIFS, Version 1.0 (Based on Samba, Linux Version 3.0.24)

Hewlett-Packard Company
Palo Alto, California

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Preface

This document describes how to migrate from HP Advanced Server for OpenVMS (also referred to as "Advanced Server") to HP OpenVMS Common Internet File System (CIFS).

Intended Audience

This document is intended for OpenVMS system administrators and network administrators.

Structure of this Document

This document is organized as follows:

- Chapter 1 provides an overview of the migration process.
- Chapter 2 describes the migration process for file share, print share, and print form on the same node and for two different nodes. It also describes the SAM database and hostmapping migration along with share and file security migration.

Related Documents

This document supplements the following:

- *HP OpenVMS CIFS Based on Samba Release Notes*
- *HP OpenVMS CIFS Based on Samba Installation and Configuration Guide*

For more information about Samba, see the following web address:

<http://www.samba.org>

Acronyms

The following table lists the acronyms used in this document:

Acronym	Description
CIFS	Common Internet File System
SMB	Server Message Block
MS	Member Server
ACL	Access Control List
BDC	Backup Domain Controller
SAM	Security Accounts Manager

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Internet	openvmsdoc@hp.com
Postal Mail	Hewlett-Packard Company OpenVMS Documentation, ZKO3-4/Y02 110 Spit Brook Rd. Nashua, NH 03062-2698

Conventions

The following conventions are used in this document:

Convention	Meaning
Ctrl/x	A sequence such as Ctrl/x indicates that you must hold down the key labeled Ctrl while you press another key or a pointing device button.
...	A horizontal ellipsis in a figure or example indicates the following possibilities: <ul style="list-style-type: none">• Additional optional arguments in a statement are omitted.• The preceding item or items can be repeated one or more times.• Additional parameters, values, or other information can be entered.
.	A vertical ellipsis indicates the omission of items from a code example or command format; the items are omitted because they are not important to the topic being described.
()	In command format descriptions, parentheses indicate that you must enclose multiple choices in parentheses.
[]	In command format descriptions, brackets indicate optional choices. You can choose one or more items or no items. Do not type the brackets on the command line. However, you must include the brackets in the syntax for OpenVMS directory specifications and for a substring specification in an assignment statement.
{}	In command format descriptions, braces indicate required choices; you must choose at least one of the items listed. Do not type the braces on the command line.
Example	This typeface indicates code examples, command examples, and interactive screen displays. In text, this type also identifies URLs, UNIX commands and pathnames, PC-based commands and folders, and certain elements of the C programming language.

Convention	Meaning
<i>italic type</i>	Italic type indicates important information, complete titles of manuals or variables. Variables include information that varies in system output (for example, Internal error <i>number</i>), in command lines (/PRODUCER= <i>name</i>), and in command parameters in text (where <i>dd</i> represents the predefined code for the device type).
UPPERCASE TYPE	Uppercase indicates the name of a command, routine, file, file protection code, or the abbreviation of a system privilege.
-	A hyphen at the end of a command format description, command line, or code line indicates that the command or statement continues on the following line.

Introduction

The migration process is provided to help the migration of data from Advanced Server to CIFS on the same node or across two different nodes. The data can be migrated if Advanced Server is configured as Member Server.

The following can be migrated from Advanced Server Member Server to CIFS Member Server:

- File shares and Print shares, and their security
- Files and Folders, and their security
- Hostmappings
- SAM Database Accounts
- Print Queues, Print Forms, Print Drivers and Queue Logicals

The following data cannot be migrated from Advanced Server Member Server to CIFS Member Server:

- Alertnames
- Share and File Audit Policies
- Registry parameters
- WINS address
- Number of clients configured on the Advanced Server
- The following information cannot be migrated in case of user accounts:
 - Workstation restriction details
 - Logon flags, such as the login script is executed, the account cannot be deleted, the account is locked out, the password cannot be changed and the password is expired.
 - Account passwords

1.1 Prerequisites

Before migrating the Advanced Server Member Server to the CIFS Member Server you must ensure the following:

- HP Advanced Server V7.3B for OpenVMS is installed on the Advanced Server system.

Note

Use latest patch on HP Advanced Server V7.3B for OpenVMS. If you do not have the latest patch contact HP customer service centers.

Introduction

1.1 Prerequisites

- Backup Advanced Server data present in the PWRK\$ROOT directory along with all the Advanced Server shares and the related data.
- Migration can be done only if the Advanced Server and CIFS have been configured as Member Server and in the same domain.
- Migration across different Advanced Server and CIFS configurations is not supported.
- The ASV_MIGRATION.BCK file provided along with the kit must be copied to a node where the Advanced Server is installed.
- Migration of data from the Advanced Server to CIFS must occur in the order described in the Chapter 2—Migration Process.

Migration Process

This chapter describes how to migrate file share, print share, print form, print queue, printer drivers and queue logicals on the same node and for two different nodes. It also describes how to migrate the SAM database and hostmapping along with share and file ACL.

This chapter addresses the following sections:

- Migration procedure for the Advanced Server
- Migration procedure on CIFS

Note

The procedure for migrating data from Advanced Server to CIFS on the same system or from Advanced Server to CIFS that runs on two different systems is the same except for a few differences that are discussed in the sections below.

2.1 Migration Procedure for the Advanced Server

This section describes the migration procedure to be followed on the Advanced Server node. It includes the following sections:

- Generating reports for Advanced Server Data
- Cleaning up the files
- Transferring reports to the CIFS Node

2.1.1 Generating Reports for Advanced Server Data

This section describes how to generate reports on the Advanced Server data.

To generate reports on the Advanced Server node, follow these steps:

1. Verify that the Advanced Server is running and configured as Member Server.
2. Restore the contents of the ASV_MIGRATION.BCK file to any working directory.

For example, to restore the contents of the ASV_MIGRATION.BCK file to the DISK\$DATA1:[ASV_MIGRATION] directory, enter the following command:

```
$ BACKUP ASV_MIGRATION.BCK/SAVE DISK$DATA1:[ASV_MIGRATION]
```

3. To install the migration files, enter the following command:

```
$ SET DEF DISK$DATA:[ASV_MIGRATION]
$ COPY PWRK$MANAGER.EXE SYS$COMMON:[SYSEXE]
$ COPY GET_DRIVER_INFO.EXE SYS$COMMON:[SYSEXE]
$ COPY GET_QUEUE_INFO.EXE SYS$COMMON:[SYSEXE]
```

Migration Process

2.1 Migration Procedure for the Advanced Server

4. If the Advanced Server is configured as Member Server:

- Verify that the same user name and password exist both in the local Member Server database and in the domain. If not, create an user account in the local Member Server database and on the domain PDC emulator. To do this, enter the following commands:

```
$ ADMIN LOGON ADMINISTRATOR
$ ADMIN ADD USER CIFSADMIN/PASSWORD="Any1willd0"

$ ADMIN LOGON ADMINISTRATOR /DOMAIN = \\<local member server name>
$ ADMIN ADD USER CIFSADMIN/PASSWORD="Any1willd0"
_ $ /MEMBER="Administrators"
```

- The local user account must be a privileged account, that is, a member of the Administrators group.

5. Enter the following command:

```
$ @PWRKSCIFS_MIGRATION.COM
```

The following message is displayed:

```
Advanced Server for OpenVMS to HP OpenVMS CIFS migration utility
```

```
Welcome to Advanced Server to CIFS migration utility
```

```
This migration utility generates reports required as input
for migrating Advanced Server data to CIFS.
```

```
Main Menu
```

```
Advanced Server to CIFS Migration utility comprises the options:
```

```
1 - Display reports to be generated
2 - Generate Individual reports
3 - Generate all reports
4 - Display reports
5 - Edit File and Print share report
6 - Backup reports
[E] - Exit
```

Enter your option:

Option 1 - Displays the reports that can be generated on the Advanced Server node.

Option 2 - You can select this option to generate the individual reports. For example, you can generate report only for the File Security migration.

Option 3 - You can select this option to generate all reports at a time for the following:

- User and group migration report in the case of Member Server
- Hostmapping report
- File and print share related reports
- File security report

Option 4 - You can select this option to view any of the already generated reports

Option 5 - You can select this option to edit the file and print share report. You may have to change the device or logical names in share paths so that it is valid on the CIFS server, or you may have to remove shares from the report so that they are not migrated.

Migration Process

2.1 Migration Procedure for the Advanced Server

Option 6 - You can select this option to back up the generated Advanced Server reports. You must back up reports only after you have generated all the reports about the Advanced Server.

Note

- If you select option 2 or option 3, you will be prompted for user credentials.
- If the Advanced Server is configured as Member Server, you must enter local member server administrator credentials to generate the user and group reports.
- To generate all other reports, you must enter domain administrator account credentials.
- If you select File and Print share related reports as part of option 2 or if you select option 3, you are prompted with the following:

Are you migrating Advanced Server data to CIFS on this node itself [N]?:

If you want to migrate data on the same node answer "YES" otherwise say "NO".

2.1.2 Cleaning Up the Files

Once all the reports are generated on the Advanced Server, delete the following files:

- PWRK\$MANAGER.EXE
- GET_DRIVER_INFO.EXE
- GET_QUEUE_INFO.EXE from SYS\$COMMON:[SYSEXEC]

Note

Ensure that you have deleted PWRK\$MANAGER.EXE file, because you cannot view the output for some of the admin commands.

2.1.3 Transferring Reports to the CIFS Node

This section describes the procedure to transfer all the Advanced Server generated reports to the CIFS node.

To transfer all the generated reports from the Advanced Server to the CIFS node, follow these steps:

1. Verify if the AS2CIFS_MIGRATION_REPORTS.BCK is located in DISK\$DATA1:[ASV_MIGRATION] directory. If not, enter the following command to back up the reports:

```
$ @PWRK$CIFS_MIGRATION.COM
```

Migration Process

2.1 Migration Procedure for the Advanced Server

2. Copy AS2CIFS_MIGRATION_REPORTS.BCK and PRINTER_DRIVERS.BCK to the CIFS node.

Note

This step is not required for same node migration.

3. On the CIFS node, restore the files present in the backup saveset AS2CIFS_MIGRATION_REPORTS.BCK to the SAMBA\$ROOT:[BIN] directory.

2.2 Migration Procedure on CIFS

This section describes the migration procedure to be followed on the CIFS node, where CIFS is configured as Member Server. It includes the following sections:

- SAM Database Migration
- Hostmapping Migration
- File Migration
- File and Print Share Migration
- Share Security Migration
- File Security Migration

2.2.1 SAM Database Migration

This section describes how to migrate the SAM database from the Advanced Server to CIFS.

2.2.1.1 User and Group Account Migration on Member Server

This section describes the procedure to migrate user and group accounts from the Advanced Server Member Server to the CIFS Member Server.

Note

HP does not support the migration of data from the Advanced Server Member Server to the CIFS Member Server, where CIFS Member Server exists in a different domain.

To add user and group account information on a node running CIFS configured as a Member Server in a domain, follow these steps:

1. Log in to the OpenVMS system with a privileged account.
2. Verify that CIFS is a Member Server, and enter the following commands:

```
$ @SAMBA$ROOT:[BIN] SAMBA$DEFINE_COMMANDS.COM
$ TESTPARM
...
Server role: ROLE_DOMAIN_MEMBER
```

If you have configured CIFS as a Member Server, then the server role is displayed as above.

Migration Process

2.2 Migration Procedure on CIFS

3. To verify if CIFS is installed in the same domain as that of the Advanced Server, enter the following command:

```
$ SEARCH SAMBA$ROOT:[LIB]SMB.CONF WORKGROUP
```

The resulting workgroup name must match with that of the Advanced Server domain name.

4. Create a privileged local administrator account on CIFS by following this procedure:

- a. Create an OpenVMS account 'CIFSADMIN' and grant full privileges.

For example, to add an OpenVMS account 'CIFSADMIN', enter the following command:

```
$ MC AUTHORIZE
_UAF> ADD CIFSADMIN/UIC=[400,1]/PRIV=ALL/DEFPRIV=ALL /ADD_IDENTIFIER -
_UAF> /OWNER=CIFSDOM/DEVICE=SAMBA$ROOT/DIRECTORY=[USERS] -
_UAF> /NOBATCH/NOLOCAL/NODIALUP/NOREMOTE/FLAGS=NODISUSER
```

Note: You can provide a UIC of your choice.

- b. To create a CIFS account, enter the following commands:

```
$ @SAMBA$ROOT:[BIN]SAMBA$DEFINE_COMMANDS.COM
$ PDBEDIT -A CIFSADMIN
new password: Any1willd0
retype new password: Any1willd0
```

- c. Edit the SAMBA_ROOT:[LIB]SMB.CONF file and add the following line under the [global] section:

```
[global]
admin users = CIFSADMIN
```

5. Create an account with the same user name, that is, 'CIFSADMIN', and the same password in the domain. You can create the account on the PDC emulator using the Active directory users and computers applet or from the Advanced Server Member Server by entering the following commands:

```
$ ADMIN LOGON ADMINISTRATOR
$ ADMIN ADD USER CIFSADMIN/PASSWORD="Any1willd0"
_$/MEMBER="DOMAIN ADMINS"
```

6. If you are migrating on the same node, shut down the Advanced Server by entering the following command:

```
$ @SYS$STARTUP:PWRK$SHUTDOWN.COM
```

7. To restart CIFS, enter the following commands:

```
$ @SAMBA$ROOT:[BIN]SAMBA$SHUTDOWN.COM
$ @SAMBA$ROOT:[BIN]SAMBA$STARTUP.COM
```

8. To migrate users, enter the following command:

```
$ @SAMBA$ROOT:[BIN]PWRK$USER_MIGRATION.COM
```

9. To migrate groups, enter the following command:

```
$ @SAMBA_ROOT:[BIN]PWRK$GROUP_MIGRATION.COM
```

Specify 'CIFSADMIN' as the user name and password when it prompts for the user name and password.

Migration Process

2.2 Migration Procedure on CIFS

2.2.2 Hostmapping Migration

This section describes how to migrate the hostmap accounts from the Advanced Server to CIFS. The hostmap migration must be executed only after completing SAM database migration. The OpenVMS accounts created on the node running CIFS server do not have the EXTAUTH flag set in the SYSUAF database.

Moreover, these accounts are not set for interactive login. Only NETMBX and TMPMBX privileges are granted by default. The system administrator must modify the OpenVMS accounts if any changes are required.

To migrate hostmapping information on a node running CIFS, follow these steps:

1. Edit SAMBA\$ROOT:[LIB]SMB.CONF, and add the following under [global] section:

```
[global]
  username map = /samba$root/lib/username.map
```

Note

If the username.map file is not present in the specified location, you can create the username.map file by entering the following command:

```
$ create samba$root:[lib]username.map
$ set file/attrib=(rfm:stm,mrs:0,lrl:0) samba$root:[lib]username.map
```

2. To add hostmappings, enter the following command:

```
$ @SAMBA$ROOT:[BIN]SAMBA$ADDDHOSTMAP.COM
```

Note

This procedure assumes that CIFS accounts and domain accounts already exist. It does not verify the validity of the accounts. It updates the SAMBA\$ROOT:[LIB]USERNAME.MAP file by mapping OpenVMS accounts to local CIFS accounts or domain accounts or both.

2.2.3 File Migration

This section describes how to transfer files and directories from the Advanced Sever to CIFS node.

The system administrator must to transfer files and directories from the Advanced Server to the CIFS node. When you copy files across nodes or across different disks, ensure that the directory structure remains same as that of the Advanced Server node. If the device names and logical names pointing to the share path differ on the CIFS node, edit file and print share report, and update the device and logical name information. To copy files across devices or nodes, system administrators can use a mechanism that is convenient to them, such as the BACKUP utility to back up and restore files. This step can be ignored if it is a same node migration.

2.2.4 File and Print Share Migration

This section describes how to migrate file and print shares along with the printer queues, printer forms, printer drivers, and queue logicals from the Advanced Server to CIFS. Before migrating the file and print share related information, ensure that you have completed the SAM database migration, hostmapping migration, and file migration described in sections 2.3 and 2.4.

To migrate file and print share related information on a node running CIFS, follow these steps:

1. If required, make changes to the file and print share report that contains information about share paths:
2. If you are migrating data on the same node, shut down the Advanced Server.
3. Perform the file and print share migration. The script requires the IP address of the CIFS server, and the user name and password of an administrator account.

```
$ EDIT SAMBA$ROOT:[BIN]ASV_SHARE_INFO.COM
```

```
$ @SAMBA_ROOT:[BIN]CIFS$SHARE_MIGRATION.COM
```

If CIFS is configured as Member Server, use 'CIFSADMIN' account.

4. Restore the printer driver files from the backup saveset PRINTER_DRIVERS.BCK to the directory path pointed by the PRINT\$ share.

To find out the directory path pointed by the PRINT\$ share, enter the following command:

```
$ SAMBA$ROOT:[BIN]SAMBA$DEFINE_COMMANDS.COM
$ TESTPARM
....
....
[Print$]
....
    path = /SAMBA$ROOT/PRINT/DRIVERS
....

$ BACKUP SAMBA$ROOT:[BIN]PRINTER_DRIVERS.BCK/SAVE -
_$ SAMBA$ROOT:[PRINT.DRIVERS...]*.;*;
```

2.2.5 Share Security Migration

This section describes how to migrate share security from the Advanced Server to CIFS.

To migrate share security from the Advanced Server to CIFS, follow these steps:

1. If CIFS is configured as a Member Server, then create an account 'CIFSADMIN' in the Advanced Server local member server database by entering the following command:

```
$ ADMIN LOGON ADMINISTRATOR/DOMAIN=\\<AS-NODE-NAME>
$ ADMIN ADD USER CIFSADMIN/PASSWORD="Any1willd0" -
_$ /MEMBER="Administrators"
```

Migration Process

2.2 Migration Procedure on CIFS

2. To migrate share security, enter the following command:

```
$ NET RPC SHARE MIGRATE SECURITY "-S" <AS-NODE-NAME> -  
_$_ "-U<ADMINNAME>%SECRET"
```

Note

- If CIFS is configured as Member Server, use the 'CIFSADMIN' account
 - For a same node migration, you cannot execute the above-mentioned command. This will be addressed in a future release of CIFS.
 - Advanced Server must be running for the above-mentioned command to work.
-

2.2.6 File Security Migration

This section describes how to migrate file security from the Advanced Server to CIFS.

Prerequisites

The following prerequisites for file security migration must be met before executing the PWRK\$FILEACL_MIG.COM command procedure:

- Verify that the latest CIFS software is installed.
- All Advanced Server Users and Groups are migrated to the node where CIFS is running.
- All Advanced Server file and print shares are migrated to the node where CIFS is running.
- All Advanced Server files are migrated to the node where CIFS is running.

To add file ACL information on a node running CIFS, follow these steps:

1. If you are migrating data on the same node, shut down the Advanced Server.
2. To migrate file security, enter the following command:

```
$ @SAMBA$ROOT: [BIN] PWRK$FILEACL_MIG.COM
```

This command procedure prompts for the CIFS node name, user name, and password.

If CIFS is configured as Member Server, use 'CIFSADMIN' account.

You can also execute the file security script by providing the following parameters:

```
$ @SAMBA$ROOT: [BIN] PWRK$FILEACL_MIG.COM <MACHINE NAME> <ACC NAME> <ACC PWD>
```

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