HP Advanced Server V7.3B for OpenVMS

Release Notes

September 2006

This document includes information about the Advanced Server V7.3B for OpenVMS distribution kit, software features and usage guidelines, the latest problem fixes, fixes from preceding product versions, known problems, and restrictions. These Release Notes supplement the product documentation. Always read the Release Notes before you start the product installation

Revision/Update Information:	This document supersedes the Advanced Server V7.3A for OpenVMS Release Notes*.
Operating System:	OpenVMS Alpha Version 7.3-2, 8.2 and 8.3 (For more information on the supported versions, please refer to the cover letter.)
Software Version:	HP Advanced Server V7.3B for OpenVMS

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Preface

The *HP Advanced Server for OpenVMS Release Notes* include information about the distribution kit, software features and usage guidelines, the latest problem fixes, and restrictions.

These Release Notes supplement the product documentation. Always read the documentation as well as the product Release Notes.

Intended Audience

These Release Notes are intended for the Advanced Server for OpenVMS system administrator. It assumes you have:

- A basic understanding of a PC LAN network

- A basic understanding of managing the HP *OpenVMS* operating system

- Access to the Advanced Server for OpenVMS documentation

Document Structure

This manual contains the following chapters:

- Chapter 1 contains information about the Advanced Server for OpenVMS software kit.

- Chapter 2 describes the main features of the Advanced Server for OpenVMS software.

- Chapter 3 provides guidelines for using the Advanced Server for OpenVMS software.

- Chapter 4 describes the problems corrected in Advanced Server V7.3 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 5 describes the problems corrected in Advanced Server V7.3-ECO1 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 6 describes the problems corrected in Advanced Server V7.3-ECO2 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 7 describes the problems corrected in Advanced Server V7.3A for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 8 describes the problems corrected in Advanced Server V7.3A-ECO1 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 9 describes the problems corrected in Advanced Server V7.3A-ECO2 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 10 describes the problems corrected in Advanced Server V7.3A-ECO3 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 11 describes the problems corrected in Advanced Server V7.3A-ECO4 for OpenVMS. These changes also apply to Advanced Server V7.3B for OpenVMS.

- Chapter 12 describes the problems corrected in Advanced server V7.3B for OpenVMS.

- Chapter 13 describes restrictions in the Advanced Server for OpenVMS software.

Related Documents

The Release Notes supplement the following manuals:

Document	Description
HP Advanced Server for OpenVMS Server Installation and Configuration Guide	Explains how to install and configure Advanced Server software.
HP Advanced Server for OpenVMS Concepts and Planning Guide	Provides an overview of and introduction to the Advanced Server software and associated networking concepts for system administrators and operators.
HP Advanced Server for OpenVMS Server Administrator's Guide	Explains how to manage and customize the Advanced Server software.
HP Advanced Server for OpenVMS Commands Reference Manual	Provides command syntax descriptions for all ADMINISTER commands and NET command equivalents.
HP Advanced Server for OpenVMS Guide to Managing Advanced Server Licenses	Describes the License Server software and how to manage Advanced Server licenses.

The following table lists related OpenVMS documents.

OpenVMS Document	Description
OpenVMS Version 7.x New Features and Documentation Overview Manual	Describes the new features of the OpenVMS software and an overview of the documentation that supports it
OpenVMS Alpha Version 7.x Upgrade and Installation Manual	Describes how to install the OpenVMS Alpha system software
OpenVMS System Manager's Manual	A task-oriented guide (in two volumes) to managing an OpenVMS system; describes how to set up the required system services
OpenVMS Guide to System Security	Describes OpenVMS security features, including procedures for enabling external authentication
OpenVMS System Management Utilities Reference Manual	A reference guide (in two volumes) to the utilities and tools used in managing an OpenVMS system
OpenVMS License Management Utility Manual	Explains how to load and manage license Product Authorization Keys (PAKs)
HP OpenVMS System Manager's Manual	Describes Extended File Specifications on OpenVMS, including how to set up and enable the ODS-5 file system
COM, Registry, and Events for OpenVMS Developer's Guide	Contains COM for OpenVMS, OpenVMS Registry, and OpenVMS Events information
HP C Run-Time Library Utilities Reference Manual	Describes utilities that help you manage localization and time zone data for international software applications

For additional information about HP OpenVMS products and services, access the following OpenVMS World Wide Web address:

`http://www.hp.com/go/openvms`

Reader's Comments

HP welcomes your comments on this manual. Please send comments to either of the following addresses:

Internet	**openvmsdoc@hp.com**
Mail	Hewlett-Packard Company OSSG Documentation Group, ZKO3-4/U08 110 Spit Brook Rd. Nashua, NH 03062-2698

How To Order Additional Documentation

For information about how to order additional documentation, visit the following World Wide Web address:

`http://www.hp.com/go/openvms/doc/order`

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Distribution Kit

The Advanced Server V7.3B for OpenVMS software kit supports OpenVMS Alpha
systems. The kit name is:
CPQ-AXPVMS-ADVANCEDSERVER-V0703-B-1.PCSI

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Features of Advanced Server for OpenVMS

Advanced Server for OpenVMS (often referred to as the Advanced Server) implements networking functions that are compatible with a Windows NT Server. The Advanced Server for OpenVMS offers easy access to OpenVMS file and printer resources from Windows desktops, using native Microsoft products and utilities such as Windows Explorer. The Advanced Server for OpenVMS combines the networking strengths and rich application set of Windows NT with the proven availability, reliability, scalability, and security of OpenVMS. It incorporates much of the code and functionality of Advanced Server for UNIX (*Tru64* UNIX), as well as of PATHWORKS for OpenVMS (Advanced Server). Some of the main features provided by the Advanced Server for OpenVMS include:

- LAN Manager V3.0 technology (same as Windows NT V4.0)

- Support of OpenVMS Alpha Version 7.3-2 and Version 8.2, including the following and much more:

  - OpenVMS Registry

  - External authentication and the distributed common object module (COM for OpenVMS), as implemented beginning with OpenVMS Version 7.2.

  - Extended File Specifications and ODS-5 (On-Disk Structure 5) disk volumes

- Trusted domains

- Wide Area Domain, Windows Internet Name Service (WINS) integration over TCP/IP

- Full browser functionality

- Windows NT management APIs

- The following Windows 2000 support:

  - Interoperability with Windows 2000 clients

  - Interoperability with Windows 2000 domain controllers in a Windows 2000 mixed-mode domain when the Advanced Server for OpenVMS performs as a backup domain controller or member server

  - Interoperability with Windows 2000 domain controllers in a pure (native) Windows 2000 domain when the Advanced Server for OpenVMS performs as a member server

- Support for Windows XP Professional clients

- The comprehensive ADMINISTER command-line interface

- External authentication (allowing OpenVMS users to log in at the OpenVMS prompt using their domain user name and password) and password synchronization between OpenVMS and Advanced Server systems

- User account lockout

- Support for DECnet and DECnet-Plus, TCP/IP, and NetBEUI

This chapter includes the following information:

Topic	Section Number
New Features Provided by Advanced Server V7.3B for OpenVMS	2.1
New Features Provided by Advanced Server V7.3A-ECO4 for OpenVMS	2.2
New Features Provided by Advanced Server V7.3A-ECO3 for OpenVMS	2.3
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2.1 New Features Provided by Advanced Server V7.3B for OpenVMS

2.1.1 Option to Disable Client License Check

By default, when a client establishes a session to the Advanced Server for the purpose of mapping a drive or printer, the server establishes a separate session to the client to determine if the client has any client-based licenses installed. This license check can incur a significant delay if the client or network employs a firewall which blocks incoming traffic on TCP port 139.

The delay can cause the attempt to map a drive to timeout and fail. If your clients do not use client-based licenses (instead rely only on server-based licenses present on this system), you can prevent the server from querying clients for licenses by responding Yes to the following prompt:

Do you have PATHWORKS client license components installed on any client in your network. If not, do you wish to disable client-based license checks (enter ? for more information)? [Y]

You can enable client license check by defining the logical:

```
$ DEFINE/SYSTEM PWRK$LR_DISABLE_CLIENT_PING 0
```

2.1.2 Option to Install PC Files and Shares

By default, Advanced Server V7.3A ECO4 for OpenVMS or earlier always created the PWUTIL, PWLIC, and PWLICENSE shares. These 3 shares include files which can be used by Windows clients for various purposes.

The PWUTIL share contains Windows utilities, such as User Manager for Domains and Server Manager, which can be used to manage Advanced Server from a Windows client. The PWLIC and PWLICENSE shares include a copy of the Windows software necessary to implement client-based licensing. This software is not required if you choose server-based licensing only. The client-based licensing software is also available on the PATHWORKS32 for Windows kit.

These utilities and the client-based licensing software are not required by all the users accessing Advanced Server. Hence, Advanced Server V7.3B for OpenVMS provides the option to install or remove these files and their associated shares.

During the initial configuration of Advanced Server after installation, the administrator is prompted whether to install these files. Administrators can either choose to install these files now or install them at a later time using a command procedure included in the Advanced Server kit. If the files already exist, the administrator is prompted whether to delete them or not.

In any case, the two command procedures – PWRK$PWUTIL.COM and PWRK$PWLIC.COM – are copied to SYS$COMMON;[SYSUPD] during installation. At any point of time, if the administrator wants to add or delete the PWUTIL share and files, execute the following command:

$ @SYS$UPDATE:PWRK$PWUTIL.COM

If the administrator wants to add or delete the PWLIC and PWLICENSE shares and files (both shares use the same directory path), execute the following command:

$ @SYS$UPDATE:PWRK$PWLIC.COM

In both the cases, if Advanced Server is running when you execute this command procedure, it will prompt you for a username and password. If Advanced Server is not running, no username and password is required.

When prompted for a username and password, if Advanced Server is configured as a PDC or BDC, supply the credentials of a privileged domain user in order to successfully add or delete the files and shares.

If Advanced Server is configured as a Member Server, supply the credentials of the local Member server administrator account or any privileged member server local account.

---------------------------- **Note** ----------------------------

On Advanced Server configured as member server, when you run the command procedure, if you supply the credentials of a domain user, addition or deletion of shares will fail.

2.1.3 Automatic Restart of PWRK$LMSRV Process After Abnormal Termination

Prior to V7.3B of Advanced Server for OpenVMS, if the PWRK$LMSRV process crashed, it would also terminate the PWRK$LMMCP process which resulted in a complete Advanced Server failure. In this case, Advanced Server had to be restarted by an administrator.

With Advanced Server V7.3B for OpenVMS, a new feature has been introduced to automatically restart the PWRK$LMSRV process when it terminates abnormally. The automatic restart of PWRK$LMSRV is done without restarting the PWRK$LMMCP process. This makes the restart very fast as it only involves starting a new PWRK$LMSRV process and is done without administrator intervention.

Advanced Server provides a logical name, PWRK$TEMP_AUTO_SERVER_RESTART, to enable and disable this feature. Note that as long as this logical is not defined, automatic restart of PWRK$LMSRV process is enabled.

In order to disable automatic restart of the PWRK$LMSRV process when it terminates abnormally, the logical name needs to be defined as follows:

```
$ DEFINE/SYSTEM PWRK$TEMP_AUTO_SERVER_RESTART NO
```

To re-enable the automatic restart of the PWRK$LMSRV process, the logical needs to be either deassigned or defined as follows:

```
$ DEFINE/SYSTEM PWRK$TEMP_AUTO_SERVER_RESTART YES
```

It is not required to restart Advanced Server in order for the new value to become operative.

By default, the Advanced Server also sets a limit on the automatic restart of the PWRK$LMSRV process such that if 3 abnormal terminations occur within a 24 hour period, the process will not be restarted automatically; instead an administrator will need to manually restart Advanced Server. A new registry parameter - AutoServerRestartTime - is provided which specifies the number of days within which the 3 abnormal terminations of the PWRK$LMSRV process can occur and result in the automatic restart of the PWRK$LMSRV process.

For example, if the administrator wants to allow only 2 PWRK$LMSRV process crashes to be automatically restarted in a 15-day time period and does not want to automatically restart the PWRK$LMSRV process for the third occurrence, the registry parameter should be defined as follows:

```
$ @SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER VMSSERVER AUTOSERVERRESTARTTIME 15/CREATE
```

Once this registry parameter is created, the /create qualifier need not be used to modify the parameter again. Also, restart Advanced Server after changing this registry parameter in order for the new value to become operative.

When a PWRK$LMSRV process crashes, messages similar to the following are posted in various log files as follows:

- In SYS$MANAGER:OPERATOR.LOG, the message logged is similar to:

  ```
  pwrk$lmsrv process abnormally terminated.
  See PWRK$LMLOGS:PWRK$LMSRV_<nodename>.LOG;* for  further information"
  ```

- In PWRK$LMLOGS;PWRK$LMMCP_<nodename>.LOG, the message logged is:

  ```
  PWRK$LMSRV PROCESS TERMINATED ABNORMALLY!
  ```

- An event logged in the Advanced Server System event log can be viewed by executing the following command:

  ```
  $ ADMIN SHOW EVENTS/FULL
  ```

  The event message logged is similar to:

  ```
  An Advanced Server for OpenVMS process with pid <pid> unexpectedly
  terminated
  ```

  where <pid> indicates the process identification number of the terminated pwrk$lmsrv process.

- In the Advanced Server common event log which can be viewed using the command $ ADMIN/ANALYZE. The message logged is similar to:

```
================= EVENT #8 ==================

Event Time   :   20-JUN-2006 11:01:52.49      Node: <Nodename>
Process Id   :   0000021F
Event        :   Unexpected System Error Encountered
Event Source :   LAN Manager Utility
Event Class  :   Error

Status       :   %SYSTEM-F-ABORT, abort
Text         :   PWRK$LMSRV process terminated
```

2.1.4 Server Message Block (SMB) Signing

Advanced Server V7.3B for OpenVMS supports SMB signing. By default,
SMB signing is enabled for outgoing connections and is disabled for incoming
connections.

For definition and explanation of SMB signing, refer to the following Microsoft
Knowledge Brief:

http://support.microsoft.com/kb/887429/en-us#top

To enable SMB signing for incoming connections, execute the following commands:

```
$ @SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER SERVER ENABLESECURITYSIGNATURE 1/CREATE
```

To require SMB signing for incoming connections, execute the following
commands:

```
$ SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER SERVER REQUIRESECURITYSIGNATURE 1/CREATE
```

_____ **Note** _____

After modifying either of the above registry parameters, restart the
Advanced Server for the new values to become operative.

_____

To enable SMB signing for outgoing connections, execute the following commands:

```
$ SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER RDR ENABLESECURITYSIGNATURE 1/CREATE
```

To require SMB signing for outgoing connections, execute the following
commands:

```
$ SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER RDR REQUIRESECURITYSIGNATURE 1/CREATE
```

_____ **Note** _____

After modifying either of the rdr registry parameters, the Advanced
Server need not be restarted for the new values to become operative.

_____

In all these cases, once the registry parameters are created, the /create qualifier
need not be used to modify the parameter again.

2.1.5 NTLMV2 Authentication

Advanced Server V7.3B for OpenVMS supports NTLMV2 authentication though it does not support NTLMV2 session security. For more information about NTLMV2 authentication, refer to Microsoft Knowledge Brief:

http://support.microsoft.com/kb/823659/en-us

The LAN Manager authentication level can be specified using the registry parameter LMCompatibilityLevel as follows:

```
$ @SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM
$ REGUTL SET PARAMETER LSA LMCOMPATIBILITYLEVEL[desired value between
0 to 5] /CREATE
```

---------------------------- **Note** ----------------------------

After modifying the registry parameter, restart Advanced Server for the new value to become operative.

Once the registry parameter is created, the /create qualifier need not be used to modify the parameters again.

By default, LMCompatibilityLevel is set to 0 on Advanced Server. If LMCompatibilityLevel is set to 5 on Advanced Server, ensure that LMCompatibilityLevel is set to 3 or more on all clients connecting to Advanced Server. Otherwise, connections will fail.

2.2 New Features Provided by Advanced Server V7.3A-ECO4 for OpenVMS

2.2.1 Support For OpenVMS Alpha Version 8.2 Infrastructure Changes

Advanced Server Version 7.3A-ECO4 packages, in its PCSI kit, the following new images to support the changes done in OpenVMS Alpha Version 8.2:

- PWRK$CSSHR_V8.EXE
- PWRK$LOADSTREAMS_V8.EXE
- PWRK$STREAMSOS_V8.EXE
- PWRK$STREAMSSHR_V8.EXE
- SYS$PCFSDRIVER_V8.EXE
- SYS$PCIDRIVER_V8.EXE

These new images would be installed on OpenVMS Alpha systems running V8.* versions. When Advanced Server Version 7.3A-ECO4 kit is installed on other supported OpenVMS Alpha systems (Version 7.3-1 and Version 7.3-2), the *_V7 versions of the above mentioned images are copied to the appropriate directories.

2.2.2 NT ACME: New Images for External Authentication on OpenVMS I64 Version 8.2

Advanced Sever Version 7.3A-ECO4 PCSI kit packages the following new ACME images, for use with OpenVMS I64 Version 8.2:

1. PWRK$ACME_MODULE_IA64.EXE
2. PWRK$MSV1_0_ACMESHR_IA64.EXE

In order to access these new images, the users could choose to install the full Advanced Server or just the External Authentication Software.

Users should copy these files to the SYS$COMMON:[SYSLIB] directory on their Itanium system:

```
$ COPY PWRK$ACME_MODULE_IA64.EXE -
SYS$COMMON:[SYSLIB]:PWRK$ACME_MODULE_IA64.EXE/PROT=W:RE

$ COPY PWRK$MSV1_0_ACMESHR_IA64.EXE -
SYS$COMMON:[SYSLIB]:PWRK$MSV1_0_ACMESHR_IA64.EXE/PROT=W:RE
```

After copying these files, the users should define the following logical name in SYS$STARTUP:SYLOGICALS.COM:

```
$ DEFINE/SYS/EXEC PWRK$MSV1_0_ACMESHR -
SYS$SHARE:PWRK$MSV1_0_ACMESHR_IA64.EXE
```

As with VAX and Alpha, the user will need to add $@SYS$STARTUP:PWRK$ACME_STARTUP to SYS$STARTUP:SYSTARTUP_VMS.COM. PWRK$ACME_STARTUP.COM defines the PWRK$ACME_MODULE logical name, based on the architecture type, which points to PWRK$ACME_MODULE_<arch>.EXE for VAX, ALPHA, and I64.

With the addition of PWRK$MSV1_0_ACMESHR_IA64.EXE in the kit, the pre-existing Alpha image PWRK$MSV1_0_ACMESHR.EXE has been renamed to PWRK$MSV1_0_ACMESHR_ALPHA.EXE, for the sake of consistency.

On your Alpha systems, please define the following logical name in SYS$STARTUP:SYLOGICALS.COM:

```
$ DEFINE/SYS/EXEC PWRK$MSV1_0_ACMESHR -
$ SYS$SHARE:PWRK$MSV1_0_ACMESHR_ALPHA.EXE
```

2.3 New Features Provided by Advanced Server V7.3A-ECO3 for OpenVMS

2.3.1 Improved Support for NT Style (SpoolSS) Printing

Prior to Advanced Server Version 7.3A-ECO3, the Windows NT-style printing was limited to 100 printers per server. The bottleneck with V73A-ECO2 server, when it comes to SpoolSS, is the large number of accesses to the OpenVMS registry, which has a relatively poor performance. Previous versions of Advanced Server used a limitation of 100 printers per server, beyond which the performance would drop dramatically. Advanced Server Version 7.3A-ECO3 supports larger number.

Advanced server Version 73A-ECO3 uses a "SpoolSS cache" (small registry cache) specifically for SpoolSS printing. "SpoolSS cache" reduces the number of real registry accesses considerably, resulting in an improved performance and scalability.

The "SpoolSS cache" is initialized during server startup and is enabled by default.

To disable the SpoolSS cache completely the following setting should be used in PWRK.INI, followed by a server restart:

```
[LMSRV]
     SPOOLSS_CACHE_ENABLED = NO
```

A few performance measurement points have been added to monitor the caches behavior.

PWMON COUNT/KEY=SPL has a few fields to track the number of cache misses, cache hits, and cache invalidations.

PWMON VALUE/KEY=SPL will show the number of bytes occupied by all cache entries and the total number of cache entries in the LRU

The "SpoolSS cache" implementation keeps the registry keys open for each printer and driver throughout the lifetime of the server. This occupies 32 to 48 bytes in P1 space. Therefore HP recommends to increase the SYSGEN parameter CTLPAGES with (approximately) one page for every 10 entries in the registry. So, with 1000 printers and drivers CTLPAGES must be increased by number 100.

2.3.2 Using a Tattoo Character to Generate Alias File Names

By default, alias file names are generated by retaining the first character of the file name. Instead, a tattoo character can be used to generate alias file names which would simplify the process of alias file name look up. Hence, the three new PWRK.INI parameters are introduced to generate an alias file name with a tattoo character.

To enable the usage of a tattoo character in alias file names, add the following line in PWRK$COMMON:PWRK.INI file:

```
[ODS2]
    USE_ALIAS_FILENAME_TATTOO = YES
```

To specify which tattoo character to use while generating the alias file name, add the following lines in PWRK$COMMON:PWRK.INI file. Tattoo character can be any unique character. Consider "{" to be the tattoo character. Define the following parameter as shown below:

```
[ODS2]
    ALIAS_FILENAME_TATTOO_CHAR = {
```

To specify in which position to use the tattoo character while generating the alias file name, add the following lines in PWRK$COMMON:PWRK.INI file. The position can range from 0 to 7. As an example, it is defined as "0" as shown below:

```
[ODS2]
    ALIAS_FILENAME_TATTOO_POS = 0
```

The Advanced Server should be restarted after adding the entries in PWRK.INI file.

2.3.3 Support for "RestrictAnonymous" Registry Key Through REGUTL

REGUTL now supports creation/modification of RestrictAnonymous registry key. This key is defined to 1 to restrict anonymous users.

The Advanced server should be restarted to reflect the changes.

2.3.4 Support for "tokensidlimit" Registry Key through REGUTL

With Advanced Server Version 7.3A-ECO3, the "tokensidlimit" registry key can be changed/modified through REGUTL.

The Advanced server should be restarted to reflect the changes.

2.3.5 Support for adding "ODS2_DISABLE_ALIAS_FILENAMES" in PWRK.INI File

To enable/disable alias file names, the logical PWRK$TEMP_ODS2_DISABLE_ ALIAS_FILENAMES has to be defined. But there was no corresponding INI parameter to do the same job. Now customers who want to enable/disable the alias file names can do so through INI file. By default, DISABLE_ALIAS_ FILENAMES is set to NO. To disable alias file names, add the following two lines to PWRK$COMMON:[000000]PWRK.INI file:

```
[ODS2]
    DISABLE_ALIAS_FILENAMES = YES
```

The Advanced Server should be restarted after adding this entry in PWRK.INI file.

2.4 New Features Provided by Advanced Server V7.3A-ECO2 for OpenVMS

2.4.1 SIDHistory Support

The user's account SID from the local NT domain is stored in the user's account in the Active Directory of the Windows 2000 domain. The field in Active Directory which stores the user's NT domain SID is referred to as SIDHistory.

SIDHistory allows the user to log on to their account in the Windows 2000 domain and still retain access to resources in the NT domain without the administrator having to re-permit all resources using the user's account in the Windows 2000 domain.

When the user logs on to the Windows 2000 domain, the SID in the SIDHistory field is included in their access token, thereby allowing them continued access to resources in the NT domain.

Advanced Server now understands and includes support for SIDHistory through SAM validation information level 2.

Instructions for upgrading Advanced Server users and groups to Active directory using ADMT tool:

1. Add a Windows NT server to the Advanced Server domain as backup domain controller (BDC).

2. Synchronize the databases with primary domain controller (PDC).

3. Promote Windows NT BDC to PDC.

4. Upgrade the users and/or groups using ADMT tool.

For more information about how to set up ADMT for Windows NT 4.0 to Windows 2000 Migration, see the Microsoft article at the following location:

```
http://support.microsoft.com?kbid=260871
```

2.4.2 Advanced Server Support for System Dump

When the system crashes, or a system dump is needed for a problem, the amount of information contained in the dump file depends upon the dump style that is set.

```
$MCR SYSGEN SET DUMPSTYLE 9
```

If the dump style has been set for selective dump, then the dump file might not have the required information about the Advanced Server processes.

The Advanced Server now makes use of OpenVMS system dump priority for PWRK$LMSRV, PWRK$LMMCP, and PWRK$LMBROWSER for Operating System versions equal to or greater than V7.2-2. For OpenVMS Versions greater than 7.3-1, dump priority feature is added for all Advanced Server processes. With this feature, asking customers for full dump of a system could be avoided.

2.5 New Features Provided by Advanced Server V7.3A for OpenVMS

The main new features provided by Advanced Server V7.3A for OpenVMS include the following:

- Enhanced compatibility with the latest Microsoft Windows operating systems, including Windows 2000 servers and clients and Windows XP Professional clients.

- Support of opportunistic locking to allow clients to cache data locally, providing performance improvements and reducing network traffic related to client/server communication.

- Improved performance, with new and improved caches and cache algorithms, with a reduction in buffered I/O, and a reduction of OpenVMS lock traffic (the latter feature especially improves performance on clusters).

- Support of dynamic purging and reloading of the NetBIOS name cache, and the ability to display the name cache contents — similar to the NBSTAT capabilities provided on some Microsoft clients. For more information, see Section 3.14, NBSHOW: Purging, Reloading, and Displaying the NetBIOS Name Cache (KNB).

- Improved support for TCP/IP multihomed hosts (having multiple interfaces).

  If the Advanced Server system has more than one network adapter (also referred to as a network interface card), the default adapter chosen by the Advanced Server must be the correct interface. If TCP/IP is running on multiple network adapters, the Advanced Server uses only one of those interfaces. Prior to Version 7.3-ECO2 of the Advanced Server for OpenVMS, you had to make sure the adapter you select for the Advanced Server's TCP/IP transport corresponded to the first IP address in the TCP/IP local hosts database (as seen by executing the TCPIP SHOW HOST command). Otherwise, the Advanced Server might use an IP address of a different network interface than that associated with logical PWRK$KNBDAEMON_DEVICE. Now, you no longer need to make sure the selected adapter corresponds to the first IP address in the local hosts database.

  On TCP/IP hosts with multiple interfaces, you can ensure that the Advanced Server uses the IP address of the same interface as defined by logical PWRK$KNBDAEMON_DEVICE. You can do this by defining the IP address of that interface with the logical PWRK$KNBDAEMON_IPADDR.

  Thus, for TCP/IP hosts with multiple network interfaces, you must define both the PWRK$KNBDAEMON_DEVICE and the PWRK$KNBDAEMON_IPADDR logical. If both logicals are not defined, the server will not start and an error message will be displayed, indicating that both must be defined.

On hosts with a single network interface only, neither logical should be defined except when a device is new and not yet known to the Advanced Server. In this case, define both logicals.

- Support for RMS stream_LF format files. The Advanced Server for OpenVMS now supports RMS stream_LF format files in addition to stream, fixed, and undefined formats. For more information, see Section 3.23, RMS File Formats.

2.6 Overview of Advanced Server for OpenVMS Features

This section describes some of the main features provided by the Advanced Server for OpenVMS, beginning with the most recent enhancements.

2.6.1 Windows 2000 Support

The Advanced Server provides the following Windows 2000 support:

- Support of Windows 2000 clients

- Support of Windows 2000 domain controllers in the same domain as the Advanced Server

  The Advanced Server can participate in pure (native) Windows 2000 domains as a member server (for more information on member server support, see Section 2.6.4, Member Server Support). The Advanced Server can participate in Windows 2000 mixed-mode domains as a backup domain controller or member server. (A Windows 2000 mixed-mode domain contains at least one Windows 2000 domain controller plus one or more Windows NT or HP Advanced Server domain controllers.)

For more information about Windows 2000 domain support, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For related restrictions, see Section 13.6.2, Restrictions Applying to Windows 2000 Only.

2.6.2 Windows 2003 Support

The Advanced Server provides the following Windows 2003 support:

- Support of Windows 2003 domain controllers in the same domain as the Advanced Server.

The Advanced Server can participate in Windows 2003 domains as a member server (for more information on member server support, see Section 2.6.4, Member Server Support). The Advanced Server can participate in Windows 2003 interim domains as a backup domain controller or member server. (A Windows 2003 interim domain contains at least one Windows 2003 domain controller plus one or more Windows NT or HP Advanced Server domain controllers).

For more information about Windows 2003 domain support, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For related restrictions, see Section 13.6.1, Restrictions Applying to Windows 2000, Windows 2003 and Windows XP.

2.6.3 Windows XP Professional Support

This release of the Advanced Server for OpenVMS product supports connections from Windows XP Professional clients. For information on restrictions regarding Windows XP support, see Section 13.6.3, Restrictions Applying to Windows XP Only.

2.6.4 Member Server Support

The Advanced Server for OpenVMS gives you the option of configuring the server as a member server instead of a primary domain controller (PDC) or backup domain controller (BDC). As a member server, the Advanced Server for OpenVMS can participate in a Windows 2000 native-mode environment (a domain in which all domain controllers are Windows 2000 systems) or in a Windows 2003 domains (a domain in which all domain controllers are Windows 2003 systems). Windows NT member servers can also participate along with Advanced Server member servers in Windows 2000 native-mode environments and in Windows 2003 domains.

Member servers rely on domain controllers for authenticating credentials of users requesting access. Any domain controller can authenticate domain user requests to member server resources.

The PWRK$CONFIG.COM configuration procedure allows you to define the role of the Advanced Server for OpenVMS as a member server. You cannot use the ADMINISTER SET COMPUTER/ROLE command to change an Advanced Server for OpenVMS domain controller to a member server role (or vice versa) — you must use PWRK$CONFIG. (This restriction is similar (but less restrictive) to that of Windows NT, which requires the software to be reinstalled to change a domain controller to a member server, or vice versa.)

For more information on member server support, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For information on restrictions relating to the member server role, see Section 13.10.4, Member Server Role Restrictions. For information on considerations while configuring Advanced Server as member server, refer to Section 3.7.1.1, Considerations When Configuring Advanced Server as Member Server of *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*.

2.6.5 Support for Management of Advanced Server Printers from Windows NT

Previous to V7.3 of the Advanced Server for OpenVMS, print queues and print shares could only be managed locally by using the ADMINISTER command-line interface. Print queues and shared printers could not be managed remotely from Windows NT, with the exception of limited actions on print jobs, such as pausing and deleting them.

The Advanced Server for OpenVMS can now allow administrators, print operators, and server operators on a Windows NT Server or workstation to add and manage printers defined on the Advanced Server. These Windows NT users can manage and conceptualize printers in Windows NT-familiar terms — they manage printers, print queues, printer ports, and the associated parameters defined in each printer's OpenVMS Registry entry.

You must reconfigure the server to change the default so that Advanced Server printers can be managed from Windows NT. By default, print queues and print shares on the Advanced Server are managed locally by use of the ADMINISTER command-line interface. The PWRK$CONFIG configuration facility gives the following new configuration option:

```
10. Enable NT style printing:
```

_____ **Note** _____

> Depending on the processor upon which your Advanced Server runs,
> the number of printers served might affect performance of Windows NT
> printer management actions. If you plan to configure Windows NT printer
> management, first see Section 3.25, Windows NT Printer Management of
> Large Numbers of Printers, and the restrictions detailed in Section 13.7.8,
> Windows NT Printer Management Restrictions.
>
> Once you enable Windows NT printing, HP recommends that you do
> not attempt to reconfigure the server to return to the server's local
> management style (the ADMINISTER command interface). If you do, the
> printers will be unusable. You will have to delete all printers and re-add
> them to make them functional again.

_____

The remote management of printers defined on the Advanced Server, referred to
as the Advanced Server's Windows NT-compatible printers, includes the following
features:

- Simple management of Advanced Server shared printers by using the
  Windows NT print services dialog boxes.

- When adding a printer to the Advanced Server, the Windows NT Add Printer
  Wizard installs the required drivers for the printer on the server; these
  drivers are provided by the administrator (such as from the Windows NT
  installation CD-ROM). When a client is set up to use the printer, these
  drivers are available for downloading. Administrators can store the latest
  drivers for the printers on the Advanced Server. When new drivers are
  distributed, administrators have to update a single location only. When
  client users set up printers to use from their workstations, they are able to
  download the appropriate printer driver automatically.

- Use of Windows NT access permissions for Advanced Server shared printers.

For more information on configuring Windows NT management support for
Advanced Server printers, refer to the _HP Advanced Server for OpenVMS Server
Installation and Configuration Guide_. For information on restrictions relating
to Windows NT printer management support, see Section 13.7.8, Windows NT
Printer Management Restrictions. For more information on managing Advanced
Server printers from Windows NT, refer to the _HP Advanced Server for OpenVMS
Server Administrator's Guide_.

2.6.6 Support of Alias File Names

To enable compatibility with legacy applications (such as MS-DOS) whose file
naming conventions are more restricted than those used by the Advanced Server,
the Advanced Server for OpenVMS now creates MS-DOS-compatible alias file
names for shared files whose names do not conform to the MS-DOS format. As
a result, client applications that must use, or choose to use, the MS-DOS format
for file names, can access these shared files on the server by using the file's
associated alias file name. Clients can use either the real file name or the alias
file name to access the file, depending on the client's file system.

An alias file name is also created for any file whose real name contains any
extended character set characters with code point values of 128 through 255
(hexadecimal 80 through FF). This is done even when the real filename is MS-
DOS-compatible (has the 8.3 format and all the characters are valid in MS-DOS
file names). The Advanced Server for OpenVMS returns a file's alias name,

instead of the real file name, to an MS-DOS client only if the real name is not MS-DOS-compatible, or if any extended character set character in the real name does not map to the client code page. Otherwise, the Advanced Server returns the file's real name to the MS-DOS client. For more information on support of extended character sets, see Section 2.6.7, Support of Extended Character Sets and the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For more information on support of alias file names, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

---------------------------- **Note** ----------------------------

Alias file names are supported on ODS-2 and ODS-5 volumes only; they are not supported on NFS volumes.

2.6.7 Support of Extended Character Sets

Previous to V7.3 of the Advanced Server for OpenVMS, the only character set other than ASCII supported by the file server on OpenVMS systems was the 8-bit ISO Latin-1 character set (ISO-8859-1).

A client computer that supports Unicode, or which is configured to use a code page that is not related to a Western European language, can create files with characters in the file name that are not part of the ISO Latin-1 character set. However, any Advanced Server for OpenVMS previous to V7.3 could not store files using these file names.

The Advanced Server for OpenVMS can now support certain Unicode characters or extended character sets that are foreign to the Western European languages. The characters that the Advanced Server for OpenVMS can support at any time depend on the language configured for the server. Each language is associated with one of the ISO-8859 character sets supported by the Advanced Server. Each ISO-8859 character set supports one or more languages.

You can configure any one of over 40 languages. Most of the Western European languages provide support for the Euro currency symbol.

For an up-to-date list of languages that are officially supported by the Advanced Server, refer to the Software Product Description (SPD 30.50.*xx*).

The languages and their associated ISO-8859 character sets are a subset of the Unicode (UCS-2) character sets supported on OpenVMS ODS-5 disk structures. You configure the Advanced Server to support one, and only one, language at a time.

Support of the extended character set characters makes available a broader set of characters for objects manageable by the Advanced Server, including file names, user names, group names, and file and print share names. Each character set also applies to text strings (such as descriptions) that users can specify when managing any of these objects. Windows NT-compatible Advanced Server printer description and location fields support all Unicode characters. These characters are not supported in computer names, alias names, domain names, and trusted domain names.

For restrictions related to support of Unicode and extended character sets, see Section 13.4.14, Server Language Restrictions. For more information on Unicode and extended character sets, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

The Advanced Server for OpenVMS now provides two new ADMINISTER commands: the SET MODE command, which allows you to determine how extended character set characters with values of hexadecimal 80 (128) or higher are handled for input and output, and the SHOW MODE command, which displays the current input and output modes in effect.

For more information, refer to the *HP Advanced Server for OpenVMS Commands Reference Manual* or invoke the ADMINISTER online Help.

2.6.8 Dynamic Cluster Load Balancing for the Advanced Server in WANs

Previous to V7.3 of the Advanced Server for OpenVMS, WAN clients used WINS or LMHOSTS to resolve the cluster alias name, based on a static source of address information. From request to request, the cluster alias name was resolved to the same server node in the cluster, regardless of the load.

With V7.3 and subsequent releases of the Advanced Server, dynamic cluster load balancing is now available for service requests from WAN clients that are outside the server cluster's LAN. This dynamic cluster load balancing mechanism for WAN environments is provided by HP TCP/IP Services for OpenVMS V5.0A (or later), and uses a Domain Name System (DNS) server to resolve the cluster alias name, instead of WINS or LMHOSTS. This DNS name server must support dynamic updates (Berkeley Internet Name Domain (BIND) server, Version 8.1.1 or later).

For information about enabling dynamic load balancing in WANs, see Section 3.17, Setting Up Dynamic Cluster Load Balancing in WANs.

2.6.9 DNS Support for Resolving NetBIOS Names

Previous to V7.3 of the Advanced Server for OpenVMS, the Advanced Server used WINS, broadcast name query, and LMHOSTS for name resolution, but not DNS. With V7.3 and subsequent releases, the Advanced Server for OpenVMS can use DNS for name resolution as well. To enable DNS name resolution, use Configuration Manager and select the Transport Configuration Parameters screen, as documented in the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

If you select the DNS option, the Advanced Server will use the currently configured DNS server as a last resort (that is, if all other methods fail to resolve a NetBIOS name). WINS should still be the primary resource for resolving names.

2.6.10 Support for Use of the POLYCENTER Software Installation Utility

As of V7.3 of the Advanced Server for OpenVMS, you use the POLYCENTER Software Installation (PCSI) utility to install the Advanced Server for OpenVMS.

The PCSI utility allows you to install several software products (including the Advanced Server for OpenVMS) with a single command. It also allows you to remove products from the OpenVMS system.

Furthermore, with the implementation of PCSI, the Advanced Server installation procedure has been enhanced in several ways:

- If a reboot is necessary, PCSI gives you the option of delaying it indefinitely, such as when you need to configure or change more settings before rebooting.

- Installations on multiple system disks have better support.

- Scripts and messages have been improved and include better support for installations on clusters.

2.6.11 Windows NT Domain Services

Advanced Server for OpenVMS allows you to run the server as the primary domain controller (PDC), a backup domain controller (BDC), or a member server in a Windows NT-compatible domain.

Advanced Server for OpenVMS can participate in the domain as a Master Browser or Backup Browser.

The Advanced Server for OpenVMS supports the ability to be managed remotely from:

- Windows NT Server

- Advanced Server for OpenVMS

- PATHWORKS for OpenVMS (Advanced Server)

- Clients running Windows NT and Windows 2000 server administration tools.

For information about remote server management, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

2.6.12 File and Print Services

Advanced Server for OpenVMS supports the Windows NT-compatible Server Message Block (SMB) file and print protocols.

2.6.13 Client Support

Advanced Server for OpenVMS supports connections from the following types of clients:

- Windows NT

- Windows 2000, Windows 2003, and Windows XP Professional

- PATHWORKS 32

2.6.14 Extended File Specifications Support

OpenVMS supports Extended File Specifications, providing the following capabilities to OpenVMS Alpha systems, and helping ensure Advanced Server compatibility with a wide variety of clients and legacy applications attempting to share server resources. The benefit to the Advanced Server client computers depends on the type of client, as noted below.

- Deep directories, similar to Microsoft Windows NT. Previous versions of OpenVMS support a maximum of eight directory levels.

  Deep directories allow network clients to use hierarchical storage of directories and files on the OpenVMS disk similar to the client-based disk. They are also of benefit to applications developers who are porting applications from other environments that have support for deep directories.

- Extended file names (using ODS-5). Support of extended file names is an optional feature originally provided with the OpenVMS V7.2 operating system that extends OpenVMS file name capabilities to more closely match those of contemporary Windows computers. With this functionality, OpenVMS Alpha systems support long file names (up to 243 characters including the version number), and add ISO Latin-1 characters to the supported character set.

For more information, refer to the OpenVMS documentation set.

2.6.15 Transport Support

Advanced Server for OpenVMS supports the three transports listed below, in the order listed:

1. TCP/IP

2. NetBEUI

3. DECnet-Plus (or DECnet Phase IV)

2.6.15.1 TCP/IP Support

Advanced Server for OpenVMS provides transparent support for the following TCP/IP network transport products:

- HP TCP/IP Services for OpenVMS. The latest supported version is recommended. For the latest supported version, refer to the Advanced Server for OpenVMS Software Product Description (SPD 30.50*xx*.

- MultiNet for OpenVMS, from Process Software LLC

- TCPware for OpenVMS, from Process Software LLC

For information about using TCP/IP products with Advanced Server for OpenVMS, see Section 3.12, Using TCP/IP Products with the Advanced Server.

2.6.15.1.1 WINS Support for Resolving NetBIOS Names in a WAN The Advanced Server can act as a Windows Internet Name Service (WINS) client, allowing the Advanced Server to use WINS services to resolve NetBIOS names in a Wide Area Network (WAN) configuration. For information about setting up WINS services for the Advanced Server, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide* and the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

2.6.15.1.2 DNS Support for Resolving NetBIOS Names in a WAN The Advanced Server can use DNS services to resolve NetBIOS names in a Wide Area Network (WAN) configuration. For information about setting up DNS services for the Advanced Server, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide* and the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

2.6.15.2 NetBEUI Support

The Advanced Server for OpenVMS provides the NetBEUI transport. NetBEUI is recommended only for use in small LAN-only environments (approximately 50 nodes or less).

2.6.15.3 DECnet Support

Advanced Server for OpenVMS supports DECnet and DECnet-Plus as supported by the OpenVMS operating system Version 7.2-2 and higher.

Note

The PATHWORKS mail server works only if DECnet is running on both of the following:

- The Advanced Server system

- The client that wants to use the mail server

2.6.16 PostScript Printing Support

The Advanced Server for OpenVMS supports all PostScript printers supported by OpenVMS. Selected PostScript printers may optionally need the DECprint Supervisor for OpenVMS (DCPS) software to provide access through the OpenVMS queuing system over DECnet or TCP/IP. For information about installing the DCPS software, refer to the appropriate documentation.

2.6.17 Management Interfaces

The following sections describe the management interfaces provided with the Advanced Server for OpenVMS.

2.6.17.1 ADMINISTER Command-Line Interface

Advanced Server for OpenVMS includes the Advanced Server for OpenVMS command-line interface (ADMINISTER commands).

ADMINISTER commands can be used to remotely manage Windows NT Server, PATHWORKS for OpenVMS (Advanced Server), and Advanced Server for OpenVMS servers. For more information about how to use the command-line interface, refer to the *HP Advanced Server for OpenVMS Commands Reference Manual*, or invoke the ADMINISTER online Help.

For example, to get information useful for new users, enter the following command:

```
$ ADMINISTER HELP NEW_USER
```

The following command displays an overview about using the ADMINISTER user interface:

```
$ ADMINISTER HELP NEW_USER

NEW_USER

    Welcome to the ADMINISTER command-line user interface. The
    ADMINISTER command-line interface is a comprehensive utility for
    managing domains and servers in a network of compatible servers.

    You can invoke the interface in one of two ways:

    o  Enter the command ADMINISTER, then press Return. This invokes
       the interface in subsystem mode. This is shown by the prompt
       DOMAIN\\SERVER>, where DOMAIN and SERVER are the default
       names of the domain and server you will be administering.
       Initially, DOMAIN is the name of the domain to which your
       local computer belongs, and SERVER is the name of your local
       computer. Once in subsystem mode, you can execute commands by
       entering subcommands, keywords, parameters, and qualifiers. To
       return to DCL, type EXIT or press Ctrl/Z.

    o  Enter commands one at a time from DCL level. You enter the
       ADMINISTER command followed on the same line by keywords,
       parameters, and qualifiers, then press Return. After the
       command is completed, control returns to DCL.

  Additional information available:

  Case_Sensitivity      UNC
```

2.6.17.2 Windows NT Server Administration Tools

As any other domain controller in a Windows NT domain, the Advanced Server for OpenVMS can be managed from a Windows NT Server or from a client running Windows NT server administration tools.

The Advanced Server for OpenVMS software kit includes the Windows NT server administration tools, which can be installed on computers running any of the following operating systems:

- Windows for Workgroups

- Windows 95 and Windows 98

- Windows NT Workstation

Note

Windows 2000 file and print server-related tools are available as part of the Windows 2000 Server.

The Windows NT server administration tools are available in the PWUTIL share after you install, configure, and start the Advanced Server for OpenVMS.

The SRVTOOLS directory contains a subdirectory for each type of client computer (Windows 95 tools are usable with Windows 98 clients). Refer to the README.TXT file in the subdirectory for instructions on installing the software on the client computer.

Refer to the Windows NT Server documentation or use online Help for more information about how to use Windows NT server administration tools. See also Section 3.16, Installing Optional Server Administration Tools.

2.6.17.3 Windows 2000 File and Print Server Tools

The Advanced Server can be managed from a Windows 2000 Server using tools related to file and print servers. These tools are available as part of the Windows 2000 Server.

2.6.18 Advanced Server for OpenVMS Licensing

The Advanced Server for OpenVMS follows the PATHWORKS V6 for OpenVMS simplified license management model. Both the License Server and License Registrar are provided with the Advanced Server for OpenVMS software, and a License Manager utility is also provided for managing Advanced Server licenses.

The License Server included with the Advanced Server for OpenVMS will not issue or manage PATHWORKS for OpenVMS (NetWare) licenses. If you have clients using NetWare networking software, maintain the existing version of the License Server on a different system from the one that is running Advanced Server for OpenVMS.

Advanced Server for OpenVMS requires all clients to be appropriately licensed to access resources on the server. The minimum license required to access Advanced Server for OpenVMS services is the Client Access license PWLMXXXCA07.03, or an equivalent client virtual license. See Section 3.19.1, License Enforcement, for more information about setting up licensing.

For additional information about licensing, refer to the *HP Advanced Server for OpenVMS Guide to Managing Advanced Server Licenses*.

2.6.19 External Authentication Support

The OpenVMS operating system includes support for external authentication. This feature allows the OpenVMS system manager to set up a user account for which login authentication is based on a security mechanism other than OpenVMS security.

Advanced Server for OpenVMS software participates with the operating system to provide the ability to use the Advanced Server user authentication mechanism to authenticate OpenVMS user logons. This allows users to log in at the OpenVMS login prompt using the Advanced Server for OpenVMS user name and password. In addition, it provides automatic password synchronization for user accounts.

For more information about implementing external authentication, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For information on installing the external authentication images, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*.

2.6.20 Performance and Interoperability Enhancements

This section describes several enhancements to server performance and its interoperability with Windows NT.

2.6.20.1 Domain Database Replication and Network Logon Performance Improvement

The Advanced Server for OpenVMS software has been streamlined to improve the performance for network logons and domain security accounts database (also referred to as SAM database) replication. Previous to V7.3 of the Advanced Server for OpenVMS, these operations were performed by the PWRK$LMDMN process. The server now uses the PWRK$LMSRV process to perform them. The PWRK$LMSRV process is responsible for communicating with the data cache that contains the SAM database. Moving the responsiblity for network logon validation and SAM database replication from the PWRK$LMDMN process to the PWRK$LMSRV process streamlines the operations by eliminating the interprocess communication that was required between the PWRK$LMDMN process and the PWRK$LMSRV process. The PWRK$LMDMN process no longer exists, as noted in Section 3.21, PWRK$LMDMN Process and Startup File Replaced.

2.6.20.2 Improved Performance for Access of Sequential and VFC Files

Previous to V7.3 of the Advanced Server for OpenVMS, when a file on an ODS-2 or ODS-5 volume was opened for the first time, the server had to read the entire file to determine the correct file size. On ODS-5 volumes, the Advanced Server now uses file-size calculations maintained by RMS for RMS sequential and VFC (variable length with fixed-length control) files. This reduces the number of I/Os and the file-open time when the Advanced Server opens a file for the first time.

This benefits especially those sites where OpenVMS RMS application files (sequential or VFC) are provided for Advanced Server users at regular intervals, such as overnight to make the files accessible to PCs the next day. HP recommends that such sites store the RMS files on ODS-5 volumes and disable high-water marking to optimize I/O throughput. (High-water marking is a security feature set by default when a volume is initialized to guarantee that users cannot read data they have not written.)

2.6.20.3 Improved Handling of File and Directory Permissions

The file server is designed to handle access permissions in conformance with the behavior of Windows NT. Previous to V7.3 of the Advanced Server for OpenVMS, certain OpenVMS behaviors caused discrepancies. For example, when files were created in a shared directory, they inherited inappropriate or wrong access permissions from the parent directory. The Advanced Server for OpenVMS now compensates for the OpenVMS inconsistencies and handles security information more efficiently and in conformance with the behavior of Windows NT.

The Advanced Server for OpenVMS also provides a new utility, PWRK$FIXACE, that can help resolve security problems that arise because of inappropriate permissions on files. The utility removes inappropriate security information and compresses the valid security information to optimize disk storage.

In addition, the Advanced Server for OpenVMS introduces a new OpenVMS Registry parameter value, **STORE_SECURITY_ACES**, to limit the security information that is propagated to files created in directories. This can help optimize the usage of disk space (at the expense of runtime performance). For more information on the file server's handling of file security information, the PWRK$FIXACE utility, and the STORE_SECURITY_ACES parameter, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For information about the relevant ACE problems fixed in Advanced Server V7.3 for OpenVMS, see Section 4.2.1, Files Inherit Wrong or Inappropriate ACEs, and Section 4.2.2, Cannot Create File on Disk Because of Insufficient Space for Index Header Blocks.

2.6.20.4 Enhanced Interoperation with Windows NT

In some instances, Microsoft Windows NT does not strictly conform to Request for Comments (RFCs) 1001 and 1002. Most notably, the lack of conformance occurs when clients fail to resolve names by either WINS or broadcast, and use DNS for resolving NetBIOS names as a last resort. When Windows NT resolves a NetBIOS name by using DNS, the subsequent sequence of actions differs from the actions taken following the normal methods of name resolution (by either WINS or broadcast).

When Windows NT has resolved a NetBIOS name to an IP address by using a DNS server, it does the following:

1. Windows NT attempts to PING the resolved IP address to determine whether the node is up.

2. If the PING is successful, Windows NT sends a node status request for the NetBIOS name "*....<15>". This is a wildcard name; however, it is an invalid NetBIOS name according to RFCs 1001 and 1002.

    If Windows NT does not get a node status response, it assumes the server is down and stops attempting to establish a session. This will happen with an Advanced Server for OpenVMS prior to V7.3, because such a server rejects the node status request as an invalid NetBIOS name.

3. If Windows NT receives a valid node status response, the response includes a list of NetBIOS names owned by the node. Windows NT assumes that the first name ending in "0x20" (the server service) in the list is always the file server name. Windows NT uses this name in its attempt to establish a session with the server.

However, with the Advanced Server for OpenVMS prior to V7.3, the first name returned in a node status response that ends in "0x20" is either "PWRK$Lxxxxxx" (License Server) or "xxxxxxCMTSERVER" (CMT server), but never the file server name.

Another way in which Windows NT does not strictly adhere to RFCs 1001 and 1002 is in how it responds to a node status request. When an Advanced Server user enters the following command, where *nt-host* is the NetBIOS name of a Windows NT host, the Advanced Server sends a node status request to the specified Windows NT host:

```
$ NBSHOW KNBSTATUS nt-host
```

The Windows NT host replies to this command with a node status response. However, an Advanced Server prior to V7.3 discards the returned node status response because the packet size of the response does not conform to RFC 1001/1002 expectations — the response includes 18 extra, undefined bytes.

Advanced Server for OpenVMS now interoperates better in environments that include Windows NT. The Advanced Server now:

- Responds to Windows NT node status requests for name "*....<15>" as Windows NT expects, even though the name specified in the query is an invalid NetBIOS name according to RFC 1001 and 1002.

- Always returns the file server name as the first name in the NetBIOS name list that is returned as part of the node status response.

- No longer discards a node status response from Windows NT, even if it has 18 extra bytes of undefined information. The Advanced Server will accept the node status response, ignoring the 18 extra bytes.

2.7 Differences Between Advanced Server V7.3B for OpenVMS and PATHWORKS V6.1 for OpenVMS (Advanced Server)

Table 2–1 summarizes the differences between the Advanced Server V7.3B and PATHWORKS V6.1 for OpenVMS (Advanced Server) products.

Table 2–1 Differences Between PATHWORKS V6.1 for OpenVMS (Advanced Server) and Advanced Server V7.3B for OpenVMS

Feature	PATHWORKS V6.1 for OpenVMS (Advanced Server) Support	Advanced Server V7.3B for OpenVMS Support
OpenVMS version:	Alpha Versions 7.3-1 and 6.2 VAX Versions 7.3 and 6.2	Alpha Versions 7.3-2 and 8.2
System type:	VAX and Alpha	Alpha only
TCP/IP for OpenVMS version:	Version 5.3 on OpenVMS VAX Version 7.3 Version 4.2 on OpenVMS Alpha and VAX Version 6.2	Version 5.4 on OpenVMS Alpha Version 7.3-2 and Version 8.2

Table 2–1 (Cont.) Differences Between PATHWORKS V6.1 for OpenVMS (Advanced Server) and Advanced Server V7.3B for OpenVMS

Feature	PATHWORKS V6.1 for OpenVMS (Advanced Server) Support	Advanced Server V7.3B for OpenVMS Support
Software Installation utility	VMSINSTAL	POLYCENTER Software Installation utility
Installation options:	- PATHWORKS Advanced Server - Standalone License Server - Upgrade utility only - External authentication images only (except on OpenVMS V6.2)	- Advanced Server for OpenVMS - Standalone License Server - Standalone external authentication images - Both standalone License Server and standalone external authentication
Server configuration parameters repository:	LANMAN.INI file	OpenVMS Registry
XQP+	Must be enabled	Enabled automatically on OpenVMS Version 7.2-2 and higher
File systems:	- ODS-2 (On-Disk Structure 2) - ODS-5 (as an ODS-2 disk volume)	- ODS-2 - ODS-5 (with Extended File Specifications support)
Extended character support for file names:	Limited support for ISO Latin-1 character set only	Support for all characters in the ISO-8859-*x* character sets associated with the languages that are fully supported by the server, as documented in the SPD
Unicode characters or extended character sets foreign to the Western European languages	Not supported	Supported (Unicode characters supported are those contained by the supported extended character sets)

Table 2–1 (Cont.) Differences Between PATHWORKS V6.1 for OpenVMS (Advanced Server) and Advanced Server V7.3B for OpenVMS

Feature	PATHWORKS V6.1 for OpenVMS (Advanced Server) Support	Advanced Server V7.3B for OpenVMS Support
RMS stream_LF format files	Not supported	Supported
Opportunistic locking to allow clients to cache data locally	Not supported	Supported
Windows NT Printer Management	Not supported, except minor tasks such as management of print jobs	Supported
NTLMV2 Authentication	Not supported	Supported
SMB Signing	Not supported	Supported

3

Guidelines for Using the Advanced Server for OpenVMS Software

Always read the product documentation prior to using the software. This chapter describes additional guidelines for using the Advanced Server for OpenVMS software.

3.1 Changes Introduced with Version 7.3A of the Advanced Server for OpenVMS

This section covers changes to the latest release of the Advanced Server for OpenVMS that you might notice and which are not listed in Section 2.5, New Features Provided by Advanced Server V7.3A for OpenVMS.

- In Version 7.3-ECO2 of the Advanced Server for OpenVMS, the startup software checks that each member of an OpenVMS Cluster:

  - Uses the same Rightslist file (RIGHTSLIST.DAT)

  - Uses the same system user authorization file (SYS$COMMON:[SYSEXE]SYSUAF.DAT)

  - Uses the same Advanced Server data directory location for PWRK$ROOT (PWRK$COMMONROOT:)

  If the V7.3-ECO2 software detects any inconsistencies, the startup procedure's response depends on the definition of the PWRK$IGNORE_INCONSISTENCY logical (using the command DEFINE/SYSTEM/EXECUTIVE). If the logical is undefined, the startup procedure aborts, a message indicates what is wrong, and a second message acknowledges that you might intentionally want the server to run with the inconsistencies detected and that you can define the PWRK$IGNORE_ INCONSISTENCY logical accordingly to ignore the inconsistencies.

  With Advanced Server V7.3A for OpenVMS, this software check has been eliminated. You will not see messages indicating such inconsistencies. Before you start the server, make sure no such inconsistencies exist among cluster members.

- The EIA0: network interface device (for Ethernet adapters DE600 and DE602, for example) is now included in the server's list of known devices, for all transport layers (TCP/IP, DECnet and NetBEUI).

- The default cluster name in PWRK$CONFIG for new installations has been changed from NODE_ALIAS to NODE-ALIAS. This has been done to avoid conflicts with DNS servers that do not accept the underscore (_) as a valid character.

- The following key is now defined in the OpenVMS Registry. (See the note in Section 6.4.3, Unable to View or Change Properties of a Windows-Managed Printer.)

  `HKEY_LOCAL_MACHINE\SYSTEM\CURRENTCONTROLSET\CONTROL\PRINT\PROVIDERS`

- If the configuration procedure (PWRK$CONFIG.COM) detects that your server is not configured to participate as a browser, it will prompt you, giving you the opportunity to allow the server to participate as a browser. For more information, see Section 3.4.2, Configuring Your Server to Participate as a Browser.

- The maximum file size that the Advanced Server for OpenVMS can handle for creating, copying, reading, or writing files is now 4 GBs. Previously, the maximum size was 2 GBs. For related information, see Section 7.3.1.

- The default for the data cache size has been increased from 2048 Kbytes (2 Mbytes) to 8192 Kbytes (8 Mbytes). The latter value is sufficient for most server configurations.

- Support of the Power Users group on members servers (as supported on Windows NT workstations). The Power User's group includes more privileges than the member server's domain User's group, namely the privilege to share and stop sharing directories and printers. For information about adding support for the Power User's group when upgrading an Advanced Server V7.3 for OpenVMS member server to Advanced Server V7.3B for OpenVMS, see Section 3.3.2.3, Upgrading an Advanced Server V7.3 for OpenVMS Member Server.

Note

Beginning with OpenVMS Version 7.3-1, an option for case-sensitive lookups of file names is supported. Case-blind file name lookup is the default behavior for OpenVMS and the Advanced Server. As reported in the *OpenVMS Alpha Version 7.3-1 Release Notes*, case-sensitive file name lookup is a very significant change in behavior and cannot be expected to work seamlessly with existing applications. Likewise, command line processing of case-sensitive commands might result in unexpected behavior. HP recommends that you do not enable this feature on systems that run the Advanced Server. For more information, see Section 13.4.17, Case Sensitivity.

3.2 Disk Space Requirements

The installation software calculates the system disk space required for installation.

Table 3–1 lists the approximate amount of free disk space on the OpenVMS system disk that is required during the installation procedure.

Table 3–1   Minimum Disk Space Requirements for Installation

Components	Free Disk Space
Complete Advanced Server	150,000
Standalone License Server	30,000
Standalone external authentication images	5,000
Standalone License Server and external authentication images	35,000

Note that if the available space is barely enough to install the kit, you might see messages similar to these during the installation:

```
%PCSI-E-WRITEERR, error writing
DISK$AXP072:[VMS$COMMON.][SYSEXE]DEC-AXPVMS-VMS-
V0702-1.PCSI$DATABASE;1
-RMS-F-FUL, device full (insufficient space for allocation)
%PCSI-E-CLOSEOUT, error closing
DISK$AXP072:[VMS$COMMON.][SYSEXE]DEC-AXPVMS-VMS-
V0702-1.PCSI$DATABASE;1 as output
-RMS-F-FUL, device full (insufficient space for allocation)
%PCSI-E-S_OPFAIL, operation failed
%PCSIUI-E-ABORT, operation terminated due to an unrecoverable
error condition
```

The software installation procedure (PCSI) has completed its task of installing the product, but does not have space to record its success. HP recommends that you make additional space available and install the product again.

3.3 Server Installation

Advanced Server for OpenVMS provides a single installation procedure, using the POLYCENTER Software Installation (PCSI) utility, that allows you to choose one of the following installations:

- The complete Advanced Server for OpenVMS software (includes the License Server and external authentication images)

- Standalone License Server only

- Standalone external authentication images only

- Both the standalone License Server and the external authentication images

3.3.1 Installation Requirements and Restrictions

The Advanced Server for OpenVMS requires an OpenVMS Alpha operating system, Version 7.3-1 and Version 7.3-2.

Consider the following restrictions related to server installation:

- You cannot install the Advanced Server for OpenVMS software on a VAX system.

- You cannot run the PATHWORKS for OpenVMS (Advanced Server) on cluster members of the same cluster that is running the Advanced Server for OpenVMS. All cluster members must run the same version of the file server.

- The Advanced Server for OpenVMS can run on members of an OpenVMS Cluster that are running OpenVMS Alpha Version 7.2-2, 7.3, or 7.3-1. If you are running a mixed-version cluster that has some nodes running OpenVMS Version 7.2-1H1 and earlier and other nodes running OpenVMS Version 7.2-2 and later, be aware that the Registry server on the earlier systems is incompatible with the Registry server on the later systems. Therefore, you cannot run Registry servers or clients (such as the Advanced Server for OpenVMS) on both the earlier and later OpenVMS systems at the same time. For more information, refer to the OpenVMS Alpha release notes for the latest system you are running.

- You cannot run the PATHWORKS for OpenVMS (NetWare) server on the same system or cluster as the Advanced Server for OpenVMS. You must deinstall the NetWare server before installing the Advanced Server for OpenVMS.

Note

Before attempting to install the Advanced Server, HP recommends that you check your system for the SYS$UPDATE:PWVN$IVP.DAT file and remove it. Previous versions of PWVN$DEINSTAL.COM failed to remove the file. If SYS$UPDATE:PWVN$IVP.DAT is present, the installation assumes that Netware is still present and fails.

- In an OpenVMS Cluster, when installing the Advanced Server V7.3A for OpenVMS over a previous installation of V7.3, V7.3-ECO1, or V7.3-ECO2 of the Advanced Server for OpenVMS, you must reboot your system before you run the configuration procedure (PWRK$CONFIG.COM). The installation procedure will notify you while presenting the reboot options that you must reboot your system before running PWRK$CONFIG.COM.

  If you do reboot as recommended, you will not have to reboot your system again after configuring your server, unless you modify configuration parameters affecting system resources (such as changes to the physical memory to be used by the configuration, client capacity, or the data cache size).

Refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide* for more information.

3.3.2 Upgrading the Server

This section provides several guidelines for upgrading your server that are not documented elsewhere.

3.3.2.1 Upgrading Your Server and OpenVMS

If you plan to upgrade an OpenVMS Version 7.2-1x system to Version 7.3x, and that system is running an Advanced Server for OpenVMS version prior to V7.3, first upgrade the Advanced Server for OpenVMS to the latest version before you upgrade the OpenVMS system.

If you are running V7.3 of the Advanced Server for OpenVMS on an OpenVMS Version 7.2-1x, then first upgrade the OpenVMS system to Version 7.3x before you upgrade the Advanced Server to its current version.

3.3.2.2 Upgrading a Server with a Large Share Database

If your share database is extremely large, see Section 13.2.2, Upgrading Large Share Databases, prior to running PWRK$CONFIG.COM to perform the upgrade.

3.3.2.3 Upgrading an Advanced Server V7.3 for OpenVMS Member Server

As with Windows NT workstations, the Advanced Server V7.3B for OpenVMS member server supports the Power Users group, which includes more privileges than the member server's local domain User's group, namely the privilege to share and stop sharing directories and printers. On a fresh installation of the Advanced Server V7.3B for OpenVMS, the Power Users group is included in the member's local domain database after changing the server's role to member server. However, when upgrading an Advanced Server V7.3 for OpenVMS member server to Advanced Server V7.3B for OpenVMS, the Power User's group will not be included in the member server's local domain database. To add this group to the database, do the following:

1. Back up the old (Advanced Server V7.3 for OpenVMS) databases.

2. After upgrading the member server to Advanced Server V7.3B for OpenVMS, invoke the following command at the DCL prompt, as shown:

   ```
   $ SAMCHECK -R
   ```

   This command updates the database to include the Power Users group.

3.3.3 Ignore Warning Messages When Installing Over a V7.3-ECO Version of the Server

If you currently have Version 7.3-ECO1 or 7.3-ECO2 of the Advanced Server for OpenVMS installed on your system, then when you install Advanced Server V7.3A for OpenVMS or any ECOs to V7.3A, the PCSI installation procedure displays the warning messages such as the following, which you can ignore:

```
%PCSI-W-VERLOW, you have selected a lower version of an installed
 product
-PCSI-W-VERINS, the installation of product CPQ AXPVMS ADVANCEDSERVER
 V7.3-A
-PCSI-W-VERREM, will remove current product CPQ AXPVMS ADVANCEDSERVER
 V7.3-1
Do you want to continue? [YES]
```

As you can see from the warning messages, PCSI translates the Version 7.3-ECO1 kit version string (V0703-1) to V7.3-1, which is higher than V7.3-A, the translation for the Version 7.3A kit version string (V0703-A). Of course, in actuality, the Advanced Server V7.3A for OpenVMS is higher than Advanced Server V7.3-ECO1 for OpenVMS.

Ignore the warning messages and continue, as indicated by the following message that displays prior to PCSI's warning messages:

```
*******************************************************
You will soon see a warning message claiming the version
to be installed is lower than the version already installed.
Disregard that message. It is safe to continue with the
installation. You are installing a higher version.
*******************************************************
```

3.4 Configuring the Advanced Server

The Advanced Server provides several configuration utilities:

- The PWRK$CONFIG.COM configuration procedure for determining the initial setup and configuration parameters. The procedure also allows you to start the Advanced Server. You can use the procedure to reconfigure the server at a later time.

- The Configuration Manager for managing server-specific configuration parameters that affect the system environment in which the Advanced Server operates. The PWRK$CONFIG.COM configuration procedure gives you the option of invoking the Configuration Manager, or you can invoke it manually with the ADMINISTER/CONFIGURATION command at the OpenVMS DCL prompt.

- The PWRK$REGUTL utility for managing parameters stored in the OpenVMS Registry that affect the behavior of the Advanced Server but not, for the most part, file server resource consumption.

3.4.1 Initial Server Configuration Procedure

The PWRK$CONFIG.COM configuration procedure allows you to:

- Perform basic on-disk structure setup

- Modify server system environment parameters (using the Configuration Manager)

- Modify initial server configuration parameters that determine, for example:
  - Domain administrator account information
  - Domain name
  - Whether to run the License Server
  - Whether to enable certain services (Timesource, Alerter, and Netlogon)
  - Server role (primary domain controller, backup domain controller, or member server)
  - Computer name
  - Server cluster alias
  - Server announcement string
  - Server language
  - Printer management mode (locally, using the ADMINISTER interface, or remotely, using Windows NT print services)

- Start the Advanced Server

You run the PWRK$CONFIG.COM configuration procedure after installing the Advanced Server. You may run it again at a later time if you want to reconfigure the Advanced Server. For more information about installing and configuring the Advanced Server for OpenVMS software, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*. For restrictions regarding member servers joining a domain, see Section 13.10.4, Member Server Role Restrictions.

3.4.2 Configuring Your Server to Participate as a Browser

Beginning with Version 7.3A of the Advanced Server for OpenVMS, the server uses the OpenVMS Registry value MaintainServerList to determine whether your server participates as a browser (when set to yes, your server participates as a browser; when set to no, it does not participate as a browser).

By default, this parameter is normally set to YES. However, if you have upgraded your server from Version 7.3-ECO1 or earlier, the previous server might have automatically set the MaintainServerList registry value to NO. The earlier server still participated as a browser because it ignored the MaintainServerList value. Alternatively, you might manually set the registry value to NO on your current server.

In any case, if the PWRK$CONFIG.COM configuration procedure now detects that the MaintainServerList value is set to NO, it will prompt you as follows to give you a chance to change that if you intend to have your server participate as a browser:

```
Currently this server is not configured to participate as a browser.
This server will not gather information about other computers in the
domain because the registry value MaintainServerList is set to No.
This setting of the registry value may have been made inadvertently in
previous versions of the Advanced Server.

Would you like your computer to participate as a browser? ([Y]/N)
```

3.4.3 Modifying Server System Environment Parameters

To manage server-specific configuration parameters that determine the system environment in which the server operates, you can use the Configuration Manager, a character-cell user interface. These parameters are, for the most part, directly or indirectly related to the environment in which the Advanced Server operates, such as the server's usage of OpenVMS system resources and physical memory. Examples of these parameters include the server's client capacity, the size of its data cache, and which network transports it should use. The parameters modified by the Configuration Manager are not stored in the OpenVMS Registry.

The PWRK$CONFIG.COM configuration procedure gives you the option of invoking the Configuration Manager. After installing and configuring your server, you can also invoke the Configuration Manager at the OpenVMS DCL ($) prompt as follows:

```
$ ADMINISTER/CONFIGURATION
```

Refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide* for more information about using the Configuration Manager.

3.4.4 Modifying Server Parameters Stored in the OpenVMS Registry

The Advanced Server for OpenVMS software relies on the OpenVMS Registry to store and reference server parameters. The OpenVMS Registry is similar to the Windows NT Registry.

To manage server-specific configuration parameters that are stored in the OpenVMS Registry, you can use the PWRK$REGUTL utility. These parameters affect the behavior of the Advanced Server but not, for the most part, file server resource consumption. Examples of these parameters include the name for the Advanced Server on the network, its cluster alias, values that specify how the

Advanced Server deals with Browser activity, values that affect network logon, and values that define the shares created automatically by the Advanced Server.

The PWRK$REGUTL utility is available to use after you install the Advanced Server software. The program is found at:

```
SYS$SYSTEM:PWRK$REGUTL.EXE
```

If your process has included the Advanced Server command definitions in the PWRK$DEFINE_COMMANDS.COM file, or if you have defined the REGUTL command, you can start the PWRK$REGUTL utility by entering the REGUTL command. To define the REGUTL command and start the utility, enter the following commands at the OpenVMS command prompt:

```
$ REGUTL :== $SYS$SYSTEM:PWRK$REGUTL.EXE
$ REGUTL
REGUTL>
```

As shown, the PWRK$REGUTL utility responds by displaying the REGUTL> prompt.

To use PWRK$REGUTL to access the OpenVMS Registry, your process must have one of the following:

- OpenVMS SYSPRV system privileges

- REG$UPDATE right identifier associated with the user account

---
Note

You can use the OpenVMS REG$CP utility as well as PWRK$REGUTL to manage parameters in the OpenVMS Registry. However, HP recommends that you use PWRK$REGUTL to manage server configuration parameters, because it has built-in knowledge of keys and values used by the Advanced Server, including the attributes of the data, such as minimum, maximum, and default values.

For more information on the OpenVMS Registry and how to manage server parameters, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*. For information on starting the OpenVMS Registry, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*. For more information on setting up and managing the OpenVMS Registry, refer to the *OpenVMS System Manager's Manual* or the *COM, Registry, and Events for OpenVMS Developer's Guide* (included in the OpenVMS Documentation CD-ROM).

3.4.4.1 LANMAN.INI Parameters Are Migrated to the OpenVMS Registry When Upgrading from PATHWORKS for OpenVMS

If you are upgrading a system from a previous PATHWORKS for OpenVMS product to Advanced Server for OpenVMS, the parameters and settings in the existing LANMAN.INI file are migrated to the OpenVMS Registry when you run the PWRK$CONFIG.COM configuration procedure after installation. In specific, the PWRK$CONFIG.COM procedure invokes the SYS$UPDATE:PWRK$MIGRATE_INI.COM file to perform a "one time" setup of the registry and migration of the parameters. After the migration is complete, the LANMAN.INI file is retained but not used. A parameter is set in the OpenVMS Registry indicating that the server parameters have been migrated. As long as

this parameter exists and has a non-NULL value, subsequent invocations of the PWRK$MIGRATE_INI.COM file will skip over the migration process.

You can view this parameter in the registry using the following commands:

```
$ REGUTL :== $SYS$SYSTEM:PWRK$REGUTL
$ REGUTL SHOW VALUE * LanmanIniMigrated
```

3.4.4.2 Values of Parameters as Set in the OpenVMS Registry at Startup

The Advanced Server startup procedure records a list of all Advanced Server parameters that are set in the OpenVMS Registry. You can use this list as a reference if you should ever need the latest parameter values. The list is stored in the following location, where *nodename* is the name of your server node:

```
PWRK$PARAMS:PWRK$REGISTRY_PARAMS_nodename.LIS
```

3.5 Synchronizing Advanced Server Configuration Parameters

The Advanced Server requires that the following server configuration parameters, which are stored in the OpenVMS Registry, always match the corresponding information in the Advanced Server Security Account Manager (SAM) database:

- **DomainName**

- **ComputerName_*nodename***

- **AliasName** (applies to OpenVMS Clusters only)

These parameters are initially defined when you run the PWRK$CONFIG configuration procedure, as described in the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*. The configuration procedure stores the information that you provide, both in the OpenVMS Registry and in the SAM database.

If the information stored in these two locations becomes inconsistent, the Advanced Server will not operate properly, and the following problems can occur:

- If the **ComputerName_*nodename*** or **AliasName** parameter do not match the corresponding information in the SAM database, the server might start but will encounter problems communicating with other computers (clients and servers) in the network.

- If the **DomainName** value in the OpenVMS Registry has data that does not match the domain name in the SAM database, neither the configuration procedure nor the startup procedure will complete:

  – If the configuration procedure (PWRK$CONFIG.COM) determines that the **DomainName** parameter does not match the domain name in the SAM database, it displays the following messages and terminates:

```
$ @SYS$UPDATE:PWRK$CONFIG.COM
Advanced Server V7.3A for OpenVMS Configuration Procedure
        .
        .
        .
Enter disk device name where the Advanced Server data files will be
stored [PWROOT:]:
Checking to see if OpenVMS Registry Services are available...
Verifying SAM database files...
The SAM database is too corrupt to check or repair.

%PWRK-F-SAMCHECK Error initializing Sam database files
```

– If the startup procedure (PWRK$STARTUP.COM) determines that the **DomainName** parameter does not match the domain name in the SAM database, it displays the following messages and terminates:

```
$ @SYS$STARTUP:PWRK$STARTUP.COM
The file server will use DECnet, NetBEUI, TCP/IP.
Advanced Server mail notification will use DECnet.
Process NETBIOS created with identification 00000143
Process PWRK$NBDAEMON created with identification 00000145
Process PWRK$KNBDAEMON created with identification 00000147
Process PWRK$LICENSE_R created with identification 00000149
Checking to see if OpenVMS Registry Services are available...
%PWRK-F-INCOMPLETE, Advanced Server for OpenVMS has not been
completely configured
-PWRK-I-CONFIG, please execute @SYS$UPDATE:PWRK$CONFIG.COM
```

To solve these problems, you must modify the data settings for the mismatched parameters in the OpenVMS Registry to match the corresponding information in the SAM database.

3.5.1 Restoring Registry Parameters

Server configuration information in the OpenVMS Registry can be inadvertently changed or deleted. It is also possible for registry information to be unavailable to the Advanced Server. If the required parameters listed above are not available or do not match the information in the SAM database, you must restore the parameters to the OpenVMS Registry. To accomplish this:

1. Make sure registry services are available to the Advanced Server. The configuration procedure (PWRK$CONFIG.COM) and the startup procedure (PWRK$STARTUP.COM) attempt to start the OpenVMS Registry Server.

   The OpenVMS Registry control program (REG$CP.EXE) allows you to access information in the OpenVMS Registry. Use the LIST command to display information in the registry database. If registry information is displayed, the registry services are available. For information about setting up and enabling registry services, refer to the *OpenVMS System Manager's Manual* or the *COM, Registry, and Events for OpenVMS Developer's Guide* (included in the OpenVMS Documentation CD-ROM).

   Note that HP recommends that you use PWRK$REGUTL to manage server configuration parameters, because it has built-in knowledge of keys and values used by the Advanced Server, including the attributes of the data, such as minimum, maximum, and default values.

2. Restore the server configuration information in the OpenVMS Registry, using the server configuration parameter management utility PWRK$REGUTL.EXE. PWRK$REGUTL allows you to display and modify server configuration parameters in the OpenVMS Registry. It controls parameter modification, ensuring that parameter names are entered properly and that specified values are within valid ranges. For information about using the PWRK$REGUTL utility, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

For example, to restore the **DomainName** parameter in the OpenVMS Registry, use the PWRK$REGUTL utility as shown the following example. Be sure to enter the domain name exactly as it was initially specified the last time the configuration procedure (PWRK$CONFIG.COM) was run.

```
$ REGUTL :== $SYS$SYSTEM:PWRK$REGUTL.EXE
$ REGUTL
REGUTL> SET VALUE * DomainName domain-name /CREATE/FORCE
```

Set the values of the required parameters (**DomainName**, **ComputerName_ nodename**, and **AliasName** (for OpenVMS Clusters), entering the names exactly as they were specified when the Advanced Server was last configured. The values at startup of all Advanced Server parameters in the OpenVMS Registry are listed in the following file, where *nodename* is the name of your server node:

PWRK$PARAMS:PWRK$REGISTRY_PARAMS_*nodename*.LIS

Once you have set the values of the required parameters, run the PWRK$CONFIG.COM configuration procedure to restore the remaining server configuration parameters. If the configuration procedure fails to complete successfully after this procedure, call your HP support specialist for assistance.

3.6 Enabling a Windows XP Client to Join and Log On to a Domain

If a Windows XP client is unable to join the server's domain, or a Windows XP user cannot log on to the domain, do the following on the Windows XP client. (If the Windows XP client is unable to rejoin a domain, see Section 13.6.1.4, Windows 2000 and Windows XP Clients Unable to Rejoin Domain.

1. Disable the client's certificate autoenrollment policy

2. Set the client's REQUIRESIGNORSEAL registry value to 0

3. Reboot the client

3.7 The Configuration Manager (ADMIN/CONFIG) Requires That the Registry Be Running

Before invoking the Configuration Manager with the ADMINISTER/CONFIGURATION command, make sure the OpenVMS Registry Server is running. If the Registry is not running, you will not be allowed to start the Configuration Manager. A message will notify you of this.

HP recommends that you have the Registry Server started automatically with system startup. If you need to start the Registry Server manually, enter the following command at the DCL prompt, as shown:

$ @SYS$STARTUP:REG$STARTUP

3.8 Automatic Shutdown During Server Startup

When you start up the Advanced Server using the PWRK$STARTUP.COM procedure, or the associated PWSTART command defined in the command definition file SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM, the server is not automatically shut down. PWRK$STARTUP.COM issues the following message and exits with a status of 1 if the file server is already running:

PWRK-I-RUNNING, Advanced Server is already running on this node

If you would like the PWRK$STARTUP procedure (or PWSTART command) to stop the server automatically, use the PWRESTART command (contained in the PWRK$DEFINE_COMMANDS.COM file). PWRESTART invokes PWRK$STARTUP with RESTART as the P1 parameter, which shuts down the server before restarting.

To shut down and restart a file server, use one of the following:

- PWSTOP command, followed by PWSTART
- PWRESTART command
- PWSTART RESTART command

If the server is already running, a message will indicate so. If it is not running, it will start.

3.9 Shutting Down the OpenVMS System with the Advanced Server

Before shutting down the OpenVMS system, HP recommends that you first stop the Advanced Server.

3.10 External Authentication

External authentication can provide automatic password synchronization between an OpenVMS account and a corresponding Advanced Server domain account. Users who have both OpenVMS and Advanced Server domain user accounts can avoid maintaining two different passwords. If the domain account password is changed, the OpenVMS LOGINOUT program sets the OpenVMS account password to the domain account password the next time the user logs in to the OpenVMS account. If the user changes the OpenVMS password with the DCL SET PASSWORD command, the SET PASSWORD command sends the password change to the Advanced Server external authenticator. For synchronization to succeed, an Advanced Server domain controller must be available and the domain account password must meet OpenVMS syntax requirements.

3.10.1 Enabling External Authentication

When you start the Advanced Server, server external authentication is automatically enabled for user accounts tagged for external authentication in the SYSUAF (to enable external authentication, PWRK$ACME_STARTUP.COM defines bit 0 of the SYS$SINGLE_SIGNON logical in SYSTARTUP_VMS.COM to the value 1. You can disable external authentication by changing the default value of this bit. For information on disabling external authentication and on defining the other bits in the SYS$SINGLE_SIGNON logical, see Section 3.10.2, Disabling External Authentication.)

These are the steps to take to make sure external authentication works properly:

- Set the appropriate OpenVMS user accounts to allow external authentication (in SYSUAF).

- If the complete Advanced Server software is installed, start the server and external authentication will be enabled for all user accounts allowing external authentication.

  If the standalone Advanced Server external authentication software is installed, perform the following:

  a. Add the following lines to your SYSTARTUP_VMS.COM file:

  ```
  $ DEFINE/SYSTEM/EXE SYS$SINGLE_SIGNON 1
  $ @SYS$STARTUP:PWRK$ACME_STARTUP.COM
  ```

In a cluster, add these preceding two lines plus the following in a node-specific system startup file (not clusterwide); or if using a shared system startup file such as SYS$COMMON:[SYSMGR]SYLOGICALS.COM, ensure that you conditionalize the DEFINE command based on the node name (that is, using the lexical function F$GETSYI).

```
$ DEFINE/SYSTEM/EXE PWRK$ACME_SERVER scsnode1_name[,scsnode2_name,...]
```

Each *scsnodex_name* is an equivalence name, which is the SCSNODE name of a cluster member running an Advanced Server that can be used to process external authentication requests. You can include all, or a subset of, the names of the Advanced Server member nodes. This allows you to specify the order in which the requesting host contacts the hosts running the complete Advanced Server software for an authentication request. If the first node in the list does not respond, the requesting host asks the next host, and so forth.

- Establish host mapping between Advanced Server domain user accounts and the corresponding OpenVMS user accounts, if necessary. For more information, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

- If your Advanced Server is participating in an OpenVMS Cluster, set up external authentication on all cluster members. For more information, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*.

- If you want to change the default domain used for external authentication, set the system logical PWRK$ACME_DEFAULT_DOMAIN accordingly. (The local server's domain is the default domain for users when external authentication is established: if a user does not specify a domain name at login, the system uses the default domain for authentication.) For more information, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

- If establishing external authentication for users in trusted domains, add the name of the trusted domain(s) to the OpenVMS Registry value HOSTMAPDOMAINS. For more information, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

For more information about enabling external authentication on OpenVMS systems, refer to the *OpenVMS Guide to System Security*.

For information about enabling Authentication and Credential Management (SYS$ACM) for authenticating users and determining the user security profile for OpenVMS and Windows NT, refer to the *COM, Registry, and Events for OpenVMS Developer's Guide* (included in the OpenVMS Documentation CD-ROM).

3.10.2 Disabling External Authentication

If you want to disable external authentication, then before starting the Advanced Server, define the SYS$SINGLE_SIGNON logical in SYSTARTUP_VMS.COM to a value of 0, as in the following example:

```
$ DEFINE/SYSTEM/EXECUTIVE SYS$SINGLE_SIGNON 0
```

For more information, refer to the *OpenVMS Guide to System Security*.

3.11 Disabling Opportunistic Locking

Opportunistic locking is enabled by default. Under a few circumstances, customers might want to disable opportunistic locking, such as when they require immediate access to files at the OpenVMS system level. Typically, these customers would also disable open file caching. To disable this feature so that files are not locked, add the following two lines to the PWRK$COMMON:PWRK.INI file:

```
[PLM]
    ENABLE_OPLOCKING = 0
```

3.12 Using TCP/IP Products with the Advanced Server

Advanced Server for OpenVMS provides transparent support for the following TCP/IP network transport products:

- HP TCP/IP Services for OpenVMS, V5.1 or later (required for dynamic cluster load balancing in WANs)

- MultiNet for OpenVMS, from Process Software LLC

- TCPWARE for OpenVMS, from Process Software LLC

To use Advanced Server for OpenVMS with TCP/IP, see the basic instructions in the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*. See also the note about selecting a network adapter for the Advanced Server when the TCP/IP host is using multiple network adapters, in Section 2.5, New Features Provided by Advanced Server V7.3A for OpenVMS.

3.13 EIA0: (DE600, DE602) Is Known Device for all Transports

Beginning with Version 7.3A of the Advanced Server for OpenVMS, the network interface device EIA0: (for Ethernet DE600 and DE602, for example) is included in the server's list of known devices for all transport layers (TCP/IP, DECnet and NetBEUI).

3.14 NBSHOW: Purging, Reloading, and Displaying the NetBIOS Name Cache (KNB)

With the current version of the Advanced Server for OpenVMS, you can use the NBSHOW command to purge the NetBIOS name cache and reload it with LMHOSTS entries (entries that have the #PRE tag). The entries are purged and reloaded immediately without having to restart the Advanced Server for OpenVMS; prior to Version 7.3-ECO1 of the Advanced Server for OpenVMS, if you added #PRE entries to your LMHOSTS file while the server was already running, you had to restart the Advanced Server for OpenVMS to have the entries loaded into the cache.

You can also use the NBSHOW command to display the NetBIOS name cache contents. These capabilities are similar to those provided by the NBTSTAT utility on Windows NT and other Microsoft clients. The NetBIOS name cache is used by TCP/IP (associated with the PWRK$KNBDAEMON process).

NBSHOW is a special Advanced Server management command that is defined in the command file SYS$MANAGER:PWRK$DEFINE_COMMANDS.COM.

3.14.1 Displaying Contents of the NetBIOS Name Cache

To display the current contents of the NetBIOS (KNB) name cache, enter the NBSHOW KNBCACHE command at the DCL prompt, as in the following example:

```
$ NBSHOW KNBCACHE

    KNB NetBIOS Name Cache table [3 entries]

   Name         Type   Host Address      Life [secs]
  ------------------------------------------------------------
  NINEMM      x20  UNIQUE 10.100.1.254        300
  LANGROUP    x1b  UNIQUE 192.2.3.4           -1
  SERVER1     x20  UNIQUE 192.2.3.4           -1
```

The command displays both the dynamic and static (preload) cache entries. Names with a lifetime indicated as "-1" are from the preload/static name cache, while names with a lifetime of 300 (seconds) are from the dynamic name cache. (The Advanced Server name cache timeout is five minutes.) If the server is not configured to use LMHOSTS, no preloaded names will be listed. If the server is not configured to use TCP/IP, the NBSHOW KNBCACHE command will display a message indicating so.

3.14.2 Purging the NetBIOS Name Cache and Reloading It

To dynamically purge the NetBIOS name cache and reload it from the LMHOSTS file, use the NBSHOW KNBCACHE command as in the following example:

```
$ NBSHOW KNBCACHE RELOAD
Preloaded NetBIOS name SERVER1          at 192.2.3.4
Preloaded NetBIOS name LANGROUP         at 192.2.3.4
```

Upon purging the cache, the command lists the preloaded entries drawn from the LMHOSTS file (entries with the #PRE tag). HP recommends that you use the NBSHOW KNBCACHE command to verify that the LMHOSTS names marked with the #PRE tag were indeed loaded into the cache.

3.15 Certain Clients Can Log On Using Only One Transport

On clients that use the LANMAN.INI file, the file might contain the WRKNETS keyword in the WORKSTATION section. This keyword specifies the network transports that the client can use and the order in which they are used. On Enhanced Redirector clients, these network transports are represented by local area network adapter (LANA) numbers.

The NET LOGON command works over LANA0 only, regardless of how many transports are loaded on the client. This might affect the client's ability to log on to a domain. For example, if a client runs both NetBEUI and DECnet, and WRKNETS associates NetBEUI with LANA0, NET LOGON fails if NetBEUI is not running on the server. If the domain logon fails, the client can still connect to servers but must provide a password for each session established.

To avoid this problem, do one of the following:

- Enable all of the transports that are common to both the server and client.

- Change the WRKNETS parameter to load a common server-client transport on LANA0 (for more information, refer to the client product documentation).

3.16 Installing Optional Server Administration Tools

As noted in the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*, the Advanced Server provides optional client-based server administration tools that allow you to manage the server from Windows 98, Windows 95, Windows for Workgroups, or Windows NT clients. These tools are available in the PWUTIL share after installing, configuring and starting the server.

The SRVTOOLS directory in the PWUTIL share contains a subdirectory for each type of client computer. Refer to the README.TXT file in the appropriate subdirectory for instructions on installing the software on the client computer.

_____ **Note** _____

The subdirectories for the Windows NT platforms do not include a README.TXT file. In addition, attempts to install the server administration tools for a Windows NT platform, using the SETUP.BAT installation file provided in the corresponding Windows NT subdirectory, will fail (the SETUP.BAT file in either \\SERVER\PWUTIL\SRVTOOLS\WINNT or \\SERVER\PWUTIL\SRVTOOLS\WNT40). Error messages will indicate that certain .DLL files could not be found. Therefore, they are not copied to the target directory. These .DLL files were omitted from the Windows NT subdirectories because they are not needed by Windows NT. The workaround for this problem is to remove from the SETUP.BAT file the line that copies the .DLL files and the error-check line that follows it. Or, instead of using the SETUP.BAT file to install the tools, manually copy all the tools files from the subdirectory to the Windows NT target directory.

_____

Refer to the Windows NT Server documentation or use online Help for more information about how to use Windows NT server administration tools.

_____ **Note** _____

Windows 2000 file and print server-related tools are available as part of the Windows 2000 Server.

_____

3.17 Setting Up Dynamic Cluster Load Balancing in WANs

The following section describes how to set up dynamic cluster load balancing when HP's TCP/IP Services for OpenVMS, V5.0A or later, is in use. For setting up this feature when the Multinet for OpenVMS or TCPWare for OpenVMS products are in use, refer to the appropriate product documentation.

To set up dynamic cluster load balancing in WANs, observe the following:

- Neither LMHOSTS nor WINS can provide dynamic load balancing with cluster-alias name resolution. For this feature, you must enable DNS for NetBIOS name resolution. The Advanced Server clients will then be able to use DNS for resolving the cluster alias. To correctly resolve the Advanced Server cluster alias and gain the benefits of cluster load balancing, all clients and servers should enable NetBIOS name resolution using DNS.

- You must remove any static entries for the cluster alias in the LMHOSTS file and the local hosts file on clients and servers, and you might need to remove any static entries for the cluster alias from the WINS database on WINS servers that are used by clients. (If Windows 95, Windows 98, or Windows NT clients are configured to use both WINS and DNS for NetBIOS name resolution, they first query the WINS server to resolve the name.)

  If you do not remove these static entries, the DNS load balancing feature will not work. WINS should still be the primary resource for resolving names.

- You must configure the TCP/IP Services for OpenVMS load broker. When configuring the load broker, the following load broker parameters are important regarding load balancing:

  – **max-members**

    The **max-members** parameter specifies the maximum number of IP addresses to be returned to the DNS name server in each dynamic update. Be sure to set this parameter to a value that is anywhere from one-third to one-half of the number of cluster members running the Advanced Server. The load broker will then send the DNS server a list of that number of servers on the cluster that have the least loads of all the server cluster members. The DNS server uses the list to answer clients' queries in round-robin fashion. Do NOT set the parameter to the actual number of cluster members running the Advanced Server; otherwise, the load broker will send the DNS server a list of all the server cluster members — even the most heavily loaded members — and load balancing will not be accomplished.

  – **polling-interval**

    The **polling-interval** parameter specifies the time interval between polls to the cluster members. The default is 30 seconds.

  – **dns-refresh**

    The **dns-refresh** parameter specifies how often the DNS information for a given DNS cluster name is refreshed. The default is 30 seconds. If you want to quickly pick up changes in the system load (reported by metric servers), set **dns-refresh** to a smaller number. This parameter should be set in conjunction with the **polling-interval** parameter — when you change one, you should most likely change the other. Though both parameters default to the same value, the value of the **dns-refresh** parameter should be greater than or equal to that of the **polling-interval** parameter. It is unproductive to refresh more often than you poll. Again, for more details, refer to the *TCP/IP Services for OpenVMS Management* guide.

  For information on configuring the load broker, refer to the *TCP/IP Services for OpenVMS Management* guide.

The *HP Advanced Server for OpenVMS Server Administrator's Guide* lists the basic steps to follow for enabling dynamic cluster load balancing in WANs. Note that the *HP Advanced Server for OpenVMS Server Administrator's Guide* erroneously states that the cluster alias name should be registered at the authoritative DNS (BIND) name server for the cluster. You should make sure it is not registered at the DNS server. The cluster name is associated with the IP addresses of all cluster members that are running the Advanced Server. If the addresses of the cluster members are added to the DNS database, round-robin load balancing will be in effect instead of dynamic load balancing.

The *HP Advanced Server for OpenVMS Server Administrator's Guide* also recommends that you remove all entries for the cluster alias from the LMHOSTS file of all clients and servers. It fails to mention that you should also remove all entries for the cluster alias from the local hosts file.

3.18 The Advanced Server in an OpenVMS Cluster

The documentation now includes enhanced and expanded information on installing and managing the Advanced Server in an OpenVMS Cluster, and on licensing considerations in cluster environments. The following list summarizes some of the most important considerations for servers in an OpenVMS Cluster. Refer to the appropriate documentation for more information.

3.18.1 Installation and Configuration Considerations for Clusters

- The default cluster name in PWRK$CONFIG for new installations is NODE-ALIAS. Previous to Version 7.3A of the Advanced Server for OpenVMS, the default cluster name was NODE_ALIAS. The change has been made to avoid conflicts with DNS servers that do not accept the underscore (_) as a valid character.

- Advanced Servers running in an OpenVMS Cluster share the same copy of the user accounts and shares databases and assume a single role, either a primary domain controller (PDC), a backup domain controller (BDC), or a member server. They operate as a single entity identified by the Advanced Server cluster alias name.

- The Advanced Server cluster alias is transport independent. The DECnet cluster alias name is used by the DECnet transport only. OpenVMS Clusters running TCP/IP may have a cluster alias defined for the purpose of providing failover for Network File System (NFS) clients (this cluster alias is referred to as the TCP/IP cluster impersonator name). HP strongly recommends that the Advanced Server cluster alias not be the same as the TCP/IP cluster impersonator name.

- Do not use the name of the domain as the Advanced Server cluster alias; if they are the same, the NetLogon service will fail to start.

- If you plan to use the TCP/IP transport, ensure that all cluster members on which the Advanced Server will run are in the same TCP/IP subnet.

- In general, before starting the new Advanced Server in a cluster for the first time, reboot all the server cluster members upon which a previous version of the Advanced Server (Advanced Server for OpenVMS or PATHWORKS for OpenVMS) had been running.

- On each cluster member that you want to use as a file and print server, run the Advanced Server configuration command procedure (PWRK$CONFIG.COM) before you start the server. This ensures that each node has its appropriate parameters set and enough resources to run the server. You can then use the SYSMAN utility to start the server on all cluster members.

- All cluster members that will run the Advanced Server must run the same version of the Advanced Server for OpenVMS and share a common:

  - System user authorization file (SYSUAF.DAT)

  - Rightslist file (RIGHTSLIST.DAT)

- LMF database file (LMF$LICENSE.LDB)

- Advanced Server data directory location for PWRK$ROOT (PWRK$COMMONROOT:)

- OpenVMS Registry database location (SYS$REGISTRY:)

  HP recommends that the OpenVMS Registry be configured to run the Registry Server on every Advanced Server node in the cluster. In this way, OpenVMS Cluster failover will help ensure that registry services are available to the file server.

- On an OpenVMS Cluster with multiple system disks, all nodes on which you plan to run the Advanced Server must use the same disk device (PWRK$COMMONROOT:, as noted previously) to store and access Advanced Server data files. Using separate disks on separate cluster members is strictly prohibited.

- If you are using external authentication, HP recommends that you set up external authentication software on all the nodes in the cluster. You can set up external authentication support on nodes that do not run HP OpenVMS file servers. In mixed-architecture OpenVMS Clusters with the Advanced Server for OpenVMS running on the Alpha members, the VAX members can still use external authentication. For details about setting up external authentication in OpenVMS Clusters, refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide*.

- You can run the License Server on an OpenVMS Cluster with the Advanced Server, where cluster failover provides increased availability. (Cluster failover also provides increased availability for the Advanced Server file server.)

- To gain the benefits of load balancing and failover, clients should connect to the Advanced Server using the Advanced Server cluster alias. *Failover* occurs when the node to which the client is connected becomes unavailable; the client is reconnected (using the Advanced Server alias) to the cluster member that is least loaded.

  The Advanced Server does not dynamically register the Advanced Server cluster alias with the WINS server. Therefore, you should define a static multihomed entry for the Advanced Server cluster alias in the WINS database. In addition, define a static entry for the Advanced Server cluster alias in the LMHOSTS file of each client that will access the server but is not using WINS. To enable cluster load balancing for service requests from WAN clients outside the server cluster's LAN, you might have to remove the static multihomed entry for the Advanced Server cluster alias from each client's WINS database. (If Windows 95, Windows 98, and Windows NT clients aer configured to use both WINS and DNS for NetBIOS name resolution, they first query the WINS server to resolve the name.) Likewise, remove any static entries for the server cluster alias from the LMHOSTS file and local hosts file on any clients that will access the Advanced Server and have DNS enabled for name resolution on those clients.

  For more information on setting up load balancing, first see Section 3.17, Setting Up Dynamic Cluster Load Balancing in WANs; then refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide* for an overview of the basic requirements and steps for setting up load balancing, and the *HP TCP/IP Services for OpenVMS Management* guide for details on configuring the required TCP/IP Services for OpenVMS software.

- Other domain controllers (including the PDC) that are not in the same subnet as the Advanced Server cluster must add an entry for the Advanced Server cluster alias to their LMHOSTS file. This assumes they are not using other methods (WINS or DNS) for resolving NetBIOS names. For domain operations, all the domain controllers in the cluster operate as a single domain controller identified by the Advanced Server cluster alias name, rather than by the specific computer names of the individual cluster members. However, because the LMHOSTS file does not offer any means for mapping multiple IP addresses to a single NetBIOS name, the entry for the Advanced Server cluster alias must be mapped to the IP address of one specific server cluster member. If the Advanced Server is stopped on that cluster member, you must modify the LMHOSTS file on all clients and servers to map the cluster alias name to the IP address of a cluster member on which the Advanced Server is still running. On systems running a Microsoft Windows operating system, the NetBIOS name cache must also be reloaded using the command NBTSTAT -R (capital R required).

  Due to the LMHOSTS limitations noted above, it is difficult (and perhaps unmanageable) to gain the benefits of load balancing and failover using an LMHOSTS file.

3.18.2 Management Considerations for Clusters

- To perform administrative functions on a particular cluster member, you must connect to that member by using its specific node name, rather than the cluster alias.

- The Advanced Server cluster alias is stored in the OpenVMS Registry as value **AliasName**. Use the PWRK$CONFIG configuration procedure to modify the cluster alias. To display the current Advanced Server cluster alias, as defined in the OpenVMS Registry, use the following command:

  ```
  $ REGUTL SHOW VALUE * ALIASNAME
  ```

  For more information about using REGUTL, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

- OpenVMS disk devices mounted clusterwide are offered to users as shared devices (autoshares) by all server nodes in an OpenVMS Cluster system. Devices mounted on a specific server (not clusterwide) are accessible to users connected to that server only. You can make a device available clusterwide by using the **AutoShare** value in the OpenVMS Registry. You can restrict device availability using the **NoAutoshare** value. In addition, you can control the devices to be automatically shared on a single node in the cluster, using the **Autoshare**_nodename_ and **NoAutoshare**_nodename_ values. Use the REGUTL utility to modify these values, which are stored in the following key:

  ```
  SYSTEM\CurrentControlSet\Services\AdvancedServer\ShareParameters
  ```

- All Advanced Servers in the same cluster will automatically share the same language (they share the same registry database).

3.18.3 Licensing Considerations for Clusters

- The client license product authorization keys (PAKs) must be loaded on the system that runs the License Server. In an OpenVMS Cluster, the PAKs must be loaded in a shared license database available to all cluster members.

- When registering and loading a new Advanced Server license PAK on an OpenVMS Cluster, use the LICENSE REGISTER command on one node of the cluster to register the PAK and then use the LICENSE LOAD command on each cluster member to load the licenses on that cluster member. This ensures that Advanced Server license components running on any member of the cluster will be able to detect the new licenses.

- When using server-based licenses for access to file and print services in an OpenVMS Cluster environment, HP recommends that clients connect to the cluster using the Advanced Server cluster alias, if this option is available. Clients connecting using the alias consume one server-based license for each connection to a different cluster member. Clients connecting directly to specific cluster members consume one server-based license for each connection to a different cluster member. A client can map multiple drives and printers to a single server while consuming a single server-based license.

- As noted previously, you can run the License Server on an OpenVMS Cluster with the Advanced Server, taking advantage of cluster failover in the event that license services terminate on the node running the active License Server. Normally, the License Server process (PWRK$LICENSE_S) is started on every node of the OpenVMS Cluster that starts the file server, but only one License Server process is active at any one time. The other License Server processes remain dormant until an event, such as system shutdown or a system failure, causes the active License Server process to stop. When the active License Server stops, one of the dormant License Servers becomes active and continues to provide license services to clients.

    In most cases, HP recommends that you run the License Server on all nodes of the cluster that run the file server, for maximum availability. The exception is the case where the License Server will serve licenses to WAN clients. Then you will want to limit the License Server to running on one node of the cluster. For more information, refer to the *HP Advanced Server for OpenVMS Guide to Managing Advanced Server Licenses*.

    For additional information on licensing, see Section 3.19, Licensing Support.

3.19 Licensing Support

This section covers important licensing guidelines that either have not been documented before or need special consideration.

3.19.1 License Enforcement

Advanced Server for OpenVMS requires that clients accessing server resources be appropriately licensed. To conform to this requirement, one of the following must be true:

- The client must present a client-based license before each attempt to connect or reconnect to an Advanced Server for OpenVMS server.

- The Advanced Server for OpenVMS must have a server-based license available to assign to an unlicensed client attempting to use services of the Advanced Server for OpenVMS.

In both cases, the minimum license required to access Advanced Server for OpenVMS services is the Client Access license PWLMXXXCA07.03, or an equivalent client virtual license. This license can be used as either a client-based license or a server-based license.

To access Advanced Server for OpenVMS resources, clients currently using client-based licenses to access PATHWORKS file servers must upgrade their licenses. Clients requesting PWLMXXXCA06.00 licenses need to be upgraded to request PWLMXXXCA07.03 licenses. For more information about licensing and upgrading licenses, see Section 3.19.2, Loading or Upgrading to PWLMXXXCA07.03 Licenses, and refer to the *HP Advanced Server for OpenVMS Guide to Managing Advanced Server Licenses*.

3.19.2 Loading or Upgrading to PWLMXXXCA07.03 Licenses

Note that if you are loading or upgrading to PWLMXXXCA07.03 client access licenses, the License Server will assign any PWLMXXXCA07.02 licenses first, if they are loaded and available. Remember that a PWLMXXXCA07.03 license is required to access the Advanced Server V7.3B for OpenVMS. HP recommends that you remove the PWLMXXXCA07.02 licenses from the system and/or modify the clients to explicitly request PWLMXXXCA07.03 licenses. For more information, refer to the *HP Advanced Server for OpenVMS Guide to Managing Advanced Server Licenses*.

3.19.3 Client License Support

HP supports PATHWORKS 32 client license software on Windows 95, Windows 98, Windows NT 4.0, Windows 2000, and Windows XP Professional clients. For your convenience, unsupported PATHWORKS licensing software for other clients remain available on the Advanced Server kit (in specific, PATHWORKS licensing software for DOS and Windows 3.1, and PATHWORKS licensing software for Protected Mode Windows for Workgroups LAN Manager clients).

3.19.4 Client License Software for Windows 2000 and Windows XP Clients

Windows 2000 clients can obtain client license software either from the PATHWORKS 32 distribution kit, the PWLICENSE share, or from HP customer support. Windows XP Professional clients can obtain client license software either from the PWLICENSE share or HP customer support. To enable clients to access the PWLICENSE share and install the client licensing software, make sure that server-based licensing is enabled.

3.20 PWRK$MONITOR and CMT Tools Replaced by PWRK$PWMON Utility

Though the images for the PWRK$MONITOR utility and the client-based Configurator, Monitor, and Tuner (CMT) tools are still included in the Advanced Server for OpenVMS kit, as of Version 7.3 of the Advanced Server for OpenVMS, these utilities can no longer be used with the Advanced Server for OpenVMS.

The PWRK$PWMON utility gathers and displays the data collected by the server. Unlike PWRK$MONITOR, PWRK$PWMON is not invoked automatically at startup. It is invoked from the command line. The PWRK$PWMON utility is provided for use by HP customer support.

3.21 PWRK$LMDMN Process and Startup File Replaced

Advanced Server products prior to V7.3 use the PWRK$LMDMN process to validate logons and replicate the domain security accounts database. Beginning with Advanced Server V7.3 for OpenVMS, the PWRK$LMSRV process provides this functionality instead. As noted in Section 2.6.20.1, Domain Database Replication and Network Logon Performance Improvement, this serves to streamline the operation of the Advanced Server, especially during replication.

The PWRK$LMDMN process and its associated startup command file (PWRK$LMDMN_STARTUP.COM) are no longer part of the software kit and are not installed with the software.

3.22 RMS Protections

RMS sets protection on files and directories based on user identification codes (UICs). As described in the *HP Advanced Server for OpenVMS Server Administrator's Guide*, the user's UIC determines which categories a user belongs to (System, Owner, Group, World). RMS assigns file protections for each of these categories. The default protections for files and directories are listed in Table 3–2.

The RMS protections associated with a share definition are used to set RMS protections on new files or directories created within that share. When an object (file or directory) in that share is replaced with an object of the same name from another share, the original object's protections are inherited by the object replacing it.

The default values for the directory protections and file protections are listed in Table 3–2, Default Values for RMS File and Directory Protections:

Table 3–2   Default Values for RMS File and Directory Protections

Protections	RMS Protection Codes
Directory	S: RWED, O: RWED, G: RWED, W: RE
File	S: RWD, O: RWD, G: RWD, W:R

The administrator can change the RMS protection on a specific share by using the ADMINISTER MODIFY SHARE command with the /HOST_ATTRIBUTES qualifier to set the file and directory protections. For example:

```
$ ADMINISTER MODIFY SHARE share-name -
_$ /HOST_ATTRIBUTES=(DIRECTORY_PROTECTION=(O:WRE,G:WR,W:R), -
_$ FILE_PROTECTION=(O:WRED, G:WR, W: R))
```

Note that granting write access to a category will automatically grant it delete access as well.

Note

Because share data (such as host attributes) is cached when the first client accesses the share, the changes made to share protections are not reflected until either all users are disconnected from the share or the Advanced Server is restarted.

3.23 RMS File Formats

The Advanced Server for OpenVMS supports four different RMS file formats for shares:

- Sequential stream
- Sequential stream_LF
- Sequential fixed-length record
- Sequential undefined

Support of the stream_LF file format is introduced with Advanced Server V7.3A for OpenVMS to accommodate applications that require or recommend such a format.

Define the RMS file format for a share by using the MODIFY SHARE or ADD SHARE/DIRECTORY command. Use the /HOST_ATTRIBUTES=*rms-format* qualifier to specify one of the following as the format (*rms-format*):

- SEQUENTIAL_FIXED
- STREAM (the default)
- STREAM_LF
- UNDEFINED

_____ **Note** _____

Note that with the addition of the STREAM_LF keyword for the /HOST_ ATTRIBUTES qualifier, you must now specify the STREAM keyword in full to distinguish it from the STREAM_LF qualifier. You can abbreviate the STREAM_LF keyword to "STREAM_" at a minimum. Abbreviations are not recommended for use in batch jobs and command procedures.

_____

3.24 Controlling Access to Print Shares

To control user access to print shares, you can assign users to the groups that have the appropriate access permissions, or you can assign permissions directly to shares. For more information, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

3.25 Windows NT Printer Management of Large Numbers of Printers

Depending on the processor upon which your Advanced Server runs, the number of printers served might affect performance of Windows NT printer management actions. HP recommends enabling Windows NT printer management only on servers with fewer than 100 printers. HP has found that with 100 or more printers, actions that require enumerating could take a long time. (Note that for some actions, printer enumeration is not obvious.) Windows NT fails to display an hourglass, causing the printer action to appear hung. For information on restrictions relating to Window NT management of server printers, see Section 13.7.8, Windows NT Printer Management Restrictions.

Note

If you do choose to ignore HP's recommended limit for the number of printers for Windows NT printer management, and your server has approximately 1000 or more printers defined, set the OpenVMS SYSGEN CTRLPAGES parameter to a generous size. Otherwise, the OpenVMS Registry will be unable to open the keys associated with the printers, preventing printer management functions from being performed and possibly causing the server to fail. This recommendation for the CTRLPAGES parameter is unrelated to the performance issue mentioned in the previous paragraph.

The default for the CTRLPAGES parameter is 256. For example, for a thousand printers, set the value to at least 275. Increment the size by one for every ten additional printers over 1000.

3.26 File Renaming Utility for Long File Names with Multiple Periods

Clients might not be able to access certain files on a shared ODS-2 disk that were originally created on an Advanced Server V7.2 for OpenVMS server. These are files that have long names that include multiple periods. When the periods are encoded, the file names exceed 40 characters in length. (On ODS-2 volumes, the limit for the file name is 39 characters and the limit for the extension is 39 characters.) Advanced Server V7.2 for OpenVMS servers use a method to encode file names that differs from the method that both Advanced Server for OpenVMS (V7.3 and higher) servers and PATHWORKS V6 Advanced Servers use. Therefore, files originally created on disk by an Advanced Server V7.2 for OpenVMS product might not be accessible by clients who connect to an Advanced Server V7.3 for OpenVMS product. Use the PWRENAME utility to rename such files so that they can be accessed by clients. PWRENAME is defined in the command definition file SYS$STARTUP:PWRK$DEFINE_COMMANDS.COM.

To invoke the command, enter the following line:

$ PWRENAME *filespec*

where *filespec* is the name of a specific file or the name of a device or directory. If you specify the name of a file, the utility operates on that specific file only. If you specify a device, the utility operates on all files on the device. If you specify a directory, the utility operates on all files in the specified diretory.

Use any of the following qualifiers:

Qualifier	Description
/LOG=*logfile_name*	Specifies a file to log the output. By default, output is sent to SYS$OUTPUT.
/[NO]RENAME	With the RENAME qualifier, the utility renames each file whose name exceeds the 40 character limit. This is the default. With the NORENAME specifier, the utility outputs the list of files that exceed the 40-character limit, but does not rename them.
/[NO]VERBOSE	With the VERBOSE qualifier, the utility outputs the names of all files examined. This is the default. Use the /NOVERBOSE qualifier to prevent such output.

3.27 Macintosh Attribute Information Now Excluded from File ACEs

Beginning with Advanced Server V7.3A for OpenVMS, the Macintosh file attribute information (used by the now retired PATHWORKS for Macintosh server) is no longer stored in the ACL of a file's header. This reduces the size of the Advanced Server ACE in the file header by 117 bytes (from 163 bytes to 46 bytes) and reduces the number of files with secondary file headers (extension file headers).

The ACE of a file created by an Advanced Server for OpenVMS prior to Version 7.3A, or by a PATHWORKS for OpenVMS (Advanced Server), would appear as follows (using the indicated OpenVMS DCL command):

```
$ SHOW SECURITY filename
(UNKNOWN=%X80,SIZE=%D163,FLAGS=%X0C00,ACCESS=%X06900000,DATA=
 %X00000008,%X00000000,%X0000041E,%X3EAC4100,%X511B0000,%XC63F8E74,
 %X1CF4009E,%X2703722A,%X27036E4D,%X05756E4D,%X00000000,%X00000000,
 %X00000000,%X00000000,%X00000000,%X00000000,%X00000000,%X00000000,
 %X010A0000,%X10E51200,%X00800200,%X00000000,%X00000000,%X00000000,
 %X00000000,%X00000000,%X00000000,%X00000000,%X00000000,%XEE710000,
 %XB022F5BF,%X0000FF39,%X00008000,%X00000000,%X00000000,%X00000000,
 %X00000000,%X00000000,%X00000000)
```

The ACE of a file created on Version 7.3A (or later) of the Advanced Server for OpenVMS now appears as follows:

```
$ SHOW SECURITY filename
(UNKNOWN=%X80,SIZE=%D46,FLAGS=%X0C00,ACCESS=%X06900000,DATA=
 %X00000008,%X00000000,%X0000041E,%X30064120,%X2A490003,%X8857ACB1,
 %X2AC600A0,%X2C3586F0,%X2C355E40,%X00005E40)
```

ACEs of files created on earlier versions of the Advanced Server for OpenVMS will be converted automatically to the latter format whenever the file is opened with write access; that is, whenever a client modifies or writes the file. Therefore, no further action is required to convert the ACE format.

---------------------------- Caution ----------------------------

This new ACE format is not compatible with any Advanced Server for OpenVMS prior to Version 7.3A. Customers needing to preserve the old ACE format on existing files can do so by adding the following line to the [ODS2] section in the PWRK$COMMON:PWRK.INI file:

```
[ODS2]
    UPGRADE_DOS_ACE = 0
```

If you ever need to downgrade the Advanced Server from V7.3A or later to a previous version, you can make file ACEs compatible again by doing either of the following:

- Restore a backup made of the file(s) before the Version 7.3A (or later) upgrade was performed

- Use the PWRK$DELETEACE utility and answer yes to the question "Delete PW ACEs: Y/N" as shown in the following example. The utility removes the ACEs from all the files in the specified share.

```
$ MCR PWRK$DELETEACE
Exit=x File Spec:  DKA200:[LMSHARES.CSCSEC]*.*
Cancel=x Delete V4 ACEs Y/N: N
Cancel=x Delete PW ACEs Y/N: Y
Cancel=x Delete V5 security ACEs Y/N: N
Cancel=x Delete V6 security ACEs Y/N: N
Cancel=x Delete AFP Comment ACEs Y/N: N
```

This will remove the ACEs that are incompatible with the older version of the server. The first time a client opens any of the files, the Advanced Server will add the Macintosh information ACE to that file's header.

HP recommends that before you upgrade to Version 7.3A (or later) of the Advanced Server for OpenVMS, you first back up all disks that have files that might be converted. If you later decide to go back to an earlier version of the Advanced Server for OpenVMS, you can restore the files from the backups.

3.28 Recommended/Suggested Patches for OpenVMS Alpha Version 7.3-1

VMS731_F11X-V0100 Alpha Version 7.3-1 F11BXQP ECO Kit for File System Fixes

When on an ODS-5 volume, files with names that do not obey strict ODS-2 naming, such as the use of lower case names or ISO-Latin-1 names, may loop on this name. Certain lookups back track to a previous name because for a non-case sensitive operation, the lookup finds the same file. The image affected is [SYS$LDR]F11BXQP.EXE

This patch is part of OpenVMS Alpha V7.3-2

4

Problems Corrected in Advanced Server V7.3 for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3 for OpenVMS. These software changes will also be included in future ECOs. The problems are described in the sections indicated in the following table:

Problem Type	Section Number
Server Problems	4.1
File Access/Printing Problems	4.2
ADMINISTER Command Problems	4.3
Windows 2000 Related Problems	4.4
Transport Problems	4.5
Cluster-Related Problems	4.6
Browser Problems	4.7
Advanced Server Interaction with DEC Rdb (Oracle) Problems	4.8

4.1 Server Problems

This section describes the file server problems corrected in Advanced Server V7.3 for OpenVMS.

4.1.1 File Created by a Windows Client Might Not Be Truncated Correctly

Problem:

If a client (such as Windows NT, Windows 95, or Windows 98) creates a new file in a share, the file server allocates blocks for the file but does not release this space. For example, if on the OpenVMS server you set the default directory to that of the server share and use the OpenVMS DIR/SIZE=ALL command, specifying the name of the new file, and the Advanced Server allocates 33 blocks for the file, the resulting display, and all subsequent directory displays, will show "0/33" as the number of blocks allocated for the file. As a result of this problem, disk space is consumed more quickly.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.2 "Yikes" Error Message Logged in PWRK$LMSRV Log FIle

Problem:

When interacting with a shared directory that contains a large number of versions of a given file, the file server logs the following message in the PWRK$LMSRV log file:

```
17-SEP-2000 13:48:16.68 20200282:01292B30 ODS2GetNextDirEntry:
Yikes,
expected more data blocks!
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.3 External Authentication to a Windows NT Server Fails with Password Exceeding 12 Characters

Problem:

When OpenVMS users who have accounts enabled for external authentication attempt to log in to a trusted domain on a Windows NT V4.0 server that has Service Pack 4, if they enter a password that exceeds 12 characters, the authentication fails.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.4 Advanced Server Crashes with ACCVIO at XIOCTL Routine

Problem:

The Advanced Server might crash with an access violation in the module XIOCTL, routine smbntXioctl. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
   image     module    routine   . . .   rel PC          abs PC
PWRK$LMSRV XIOCTL  smbntXioctl . . . 0000000000022BD0 0000000000618BD0
PWRK$LMSRV NTTRANS  smbnttrans . . . 0000000000024A34 000000000061AA34
PWRK$LMSRV SMBWORK  smbwork    . . . 0000000000018BDC 000000000060EBDC
PWRK$CSSHR_V7 MTS   MTS$CONTEXT_SWITCH
                                . . . 0000000000000104 00000000004B3164
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.5 The File Server Leaks Memory When Handling RegSetValue Calls

Problem:

When processing requests from client applications such as RegEdt32 that require setting string values, the file server allocates extra memory. In versions prior to Advanced Server V7.3 for OpenVMS, this memory does not get freed. If many of these set string value requests are made, or if large string values are being set, the file server could eventually run out of memory because of this problem.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. The file server now frees this memory.

4.1.6 Server Crashes Randomly, Often When in an LMFREE or LMMALLOC Routine

Problem:

The server crashes, often in an LMFREE or LMMALLOC routine. It crashes at any time after connecting to the OpenVMS Registry. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image    module    routine   . . .   rel PC          abs PC
PWRK$LMAPISHR MALDEBUG lmfree  . . . 0000000000022BD0 0000000000618BD0
PWRK$LMSRV SSIGNON_PROC process_acme_message_3
                                . . . 0000000000024A34 000000000061AA34
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.7 PWRK$LMSRV Crashes with Access Violation Processing a GET SECURITY DESCRIPTOR SMB Message for a Named Pipe

Problem:

The PWRK$LMSRV process might crash with an access violation in module PFS$OPS, routine PFS_getpathid, when processing a GET SECURITY DESCRIPTOR SMB message, and the file in question is a named pipe. A traceback similar to the following will be logged in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000180, PC=00000000003F5224, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
 image          module   routine      line  rel PC          ...
 PWRK$CSSHR_V7  PFS$OPS  PFS_getpathid 20626 0000000000009EE4 ...
 PWRK$LMSRV                             0 000000000012C95C ...
 PWRK$LMSRV                             0 000000000012B204 ...
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.8 Shares With Names 12 Characters in Length Might Be Displayed with a Random Character at Position 13

Problem:

If the name of a share has exactly 12 characters, sometimes the share name is displayed by the client with a random character appended at character position 13.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.9 PWRK$LMSRV or PWRK$LMDMN Crashes with "resume_0: too many thread resumes" Error

Problem:

An error related to interprocess communications (IPC) is not handled correctly, causing a thread in the server to be resumed (activated) too many times. The error message logged is similar to the following:

```
resume_0: too many thread resumes for 0024A2E0 (resume_pending=4)
some suspend/resume information may have been lost which may
      cause future error(s)
```

This condition might cause the PWRK$LMSRV or PWRK$LMDMN[1] process to crash.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.10 Advanced Server Hangs and Logs "Server allocating 10 more queue elements" Messages

Problem:

The Advanced Server hangs because it is attempting to process multiple VFC files at the same time. The PWRK$LMSRV log file records several "Server allocating 10 more queue elements" messages and a message indicating that the data cache is saturated and should be increased in size.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.11 Certain Clients Are Unable to Change a Password on an Advanced Server

Problem:

When clients such as PATHWORKS for MS-DOS, MS-DOS workstations, or any workstations prior to Windows NT V4 issue the net password command to change a password on the Advanced Server, the attempt fails. This occurs when the Advanced Server is a backup domain controller in the same subnet as the client, and the Advanced Server primary domain controller is in another subnet. When the client issues a net password, a message is broadcast to the network seeking a primary domain controller to perform the password change. The query is ignored by the primary domain controller, and the password change request fails.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

---

[1] PWRK$LMDMN no longer exists in Advanced Server V7.3 for OpenVMS and later versions of the Advanced Server.

4.1.12 Advanced Server Crashes in mbreaddoneast Routine (LIBIPC)

Problem:

Third-party software can erroneously post a message into an Advanced Server mailbox. This can result in the following type of crash:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=FFFFFFFF8049F044, PS=0000001B

  image     module     routine    . . .  rel PC            abs PC
                                          0000000000000000 FFFFFFFF8049F044
PWRK$CSSHR_V7  LIBIPC  mbreaddoneast 000000000000844C 00000000003C6C5C
```

Solution:

Although this problem is not due to an Advanced Server bug, the Advanced Server V7.3 for OpenVMS resolves the problem by detecting the erroneous message and then ignoring it. The Advanced Server does not crash. Instead, it logs the following warning message:

```
9-NOV-1999 11:24:42.58 202003DA:AST_LVL  IPCerr\\mbreaddoneast.5836
Unexpected mailbox message received from PID 0x202003E2, will be ignored
```

The process ID (PID) can be used to find the process that caused the problem.

4.1.13 NetBIOS Message Hangs Operator Terminal

Problem:

When the NetBIOS process has a heavy workload, and it sends a message to an operator-enabled terminal, the message might cause the terminal to hang until the operator enters the Ctrl/Y sequence.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.14 Access Denied to Non-Administrators Group Users Attempting to Use Windows NT Management Tools

Problem:

Users not belonging to the Administrators group might be denied access when using Windows NT management tools, such as the Windows NT Explorer and User Manager for Domains tools.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.15 Partial Synchronization Failure with First Time Startup in New Domain

Problem:

When the Advanced Server starts up for the first time in a new domain, a partial synchronization of the Local Security Authority (LSA) database is attempted and fails, but then a full synchronization of the database completes successfully. Following is an example of the event messages logged (the events are displayed in reverse order):

```
I 02/24/99 12:26:17 PM NETLOGON  None          5717   N/A       PHL232
NET5717:   The full synchronization replication of the LSA database
 from the domain controller \\NT216 completed successfully.

W 02/24/99 12:26:15 PM NETLOGON  None          5716   N/A       PHL232
NET5716:   The partial synchronization replication of the LSA database
 from the domain controller \\NT216 failed.
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.16 Excessive Event 5719 Messages Logged on all Backup Domain Controllers in a Domain

Problem:

In a domain with a large number of backup domain controllers (BDCs), the following message might be logged on all the BDCs in the domain. The PDC is unable to handle the number of requests it is receiving from its BDCs.

```
E 07/09/00 10:55:28 AM NETLOGON None 5719 N/A HYRES2
NET5719: No domain controller for the domain LANDOFOZ is available.
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.17 BDC Servers Experience High CPU Utilization and Replication Traffic

Problem:

The PWRK$LMSRV process on a backup domain controller (BDC) server might consume a high percentage of the CPU time during replication of domain security (SAM) databases. In this case, the replication traffic is excessive, and the server event log includes unexpected entries 5716, 5717, 5718, and 5719, depending on the replication process being performed.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.18 PWRK$LMSRV Crashes in Module UXREDIR, Routine TCON

Problem:

When the file server is communicating with another file server to complete an action, PWRK$LMSRV crashes in module UXREDIR, routine TCON. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000020, PC=00000000002BD13C, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image      module    routine   . . .  rel PC           abs PC

PWRK$LMAPISHR  UXREDIR  tcon        00000000000024CC 00000000002BD13C
PWRK$LMAPISHR  UXREDIR  redolinks   00000000000045A4 00000000002BF214
PWRK$LMAPISHR  UXREDIR  newsrv      0000000000004D4C 00000000002BF9BC
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.19 Advanced Server Crashes with ACCVIO in Image PWRK$PCMSHR

Problem:

The Advanced Server can crash due to an ACCVIO in image PWRK$PCMSHR, module PCM_BUFFER, at routine PCM_read_data. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image     module    routine   . . .   rel PC          abs PC
PWRK$PCMSHR PCM_BUFFER  pcm_read_data
                                . . . 0000000000022BD0 0000000000618BD0
PWRK$CSSHR_V7  PFS$OPS  PFS_read
                                . . . 0000000000024A34 000000000061AA34
PWRK$LMSRV  READ  comread    . . . 0000000000018BDC 000000000060EBDC
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.20 Advanced Server Crashes with ACCVIO at Routine APIEXCEPT

Problem:

The Advanced Server might crash due to an ACCVIO at routine APIEXCEPT.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.21 Advanced Server Crashes with ACCVIO in Image PWRK$LMRPCSHR

Problem:

The Advanced Server might crash due to an ACCVIO in image PWRK$LMRPCSHR. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image     module    routine   . . .   rel PC          abs PC
PWRK$LMRPCSHR                   . . . 0000000000022BD0 0000000000618BD0
PWRK$LMRPCSHR                   . . . 0000000000024A34 000000000061AA34
PWRK$LMRPCSHR                   . . . 0000000000018BDC 000000000060EBDC
PWRK$CSSHR_V7 MTS   MTS$CONTEXT_SWITCH
                                . . . 0000000000000104 00000000004B3164
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.22 PWRK$LMSRV Process Crashes in PTRMAP

Problem:

When the user account policy includes forced logoff of users who exceed the maximum logon hours specified for their accounts, the Advanced Server might crash due to an ACCVIO in the PTRMAP module at various routines. (You can enable forced logoff of users by using the /FORCE_DISCONNECT qualifier with the ADMINISTER SET ACCOUNT POLICY command.)

A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
image          module     routine      line     rel PC            abs PC
PWRK$LMSRV  PTRMAP     putptr       47806 00000000000005F0 00000000001A...
PWRK$LMSRV  PPS_JOBS PPS_open     53650 00000000000004F4 000000000018...
PWRK$LMSRV  OPEN       open_printer 70538 0000000000000734 000000000011...
PWRK$LMSRV  OPEN       openX_open2  71064 00000000000016D4 000000000011...
PWRK$LMSRV  OPEN       smbopenX     70938 0000000000001190 000000000011...
PWRK$LMSRV  SMBWORK  smbwork      64843 0000000000001794 000000000010...
```

A similar crash, in the same module, can be seen if users have logon hours specified, even if forced logoffs are not enabled.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.23 Windows NT Workstation User Unable to Log In - NET5722 Errors

Problem:

Occasionally, when a Windows NT workstation boots, an authentication failure occurs. Event logs reveal event NET5722 message, such as in the example that follows. In addition, the workstation user might not be able to log on to the workstation.

```
E 02/15/99 05:03:03 PM NETLOGON  None        5722   N/A    CAMBDG
NET5722:  The session setup from the computer BSTN1 failed to
authenticate.
 The name of the account referenced on the security database is
 BSTN1$.
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.24 Client Directory Listings Incomplete

Problem:

When viewed from various clients, such as Microsoft Windows Explorer, directory listings might fail to show all the files in the directory. In some cases, the missing contents are those files that would be at the end of the directory listing. The directory cache might inadvertently stop before the entire cache contents for the directory are processed. This seems to occur most often on heavily accessed directories. For example, the problem might occur when a substantial number of subdirectories and files are added to the same directory. The problem might also occur with directories that are accessed by multiple clients. After the contents of a directory that has been cached are changed (for example, from OpenVMS or another client, or after a ZIP file is unpacked), the directory listing might be incomplete.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Note that incomplete directory listings can also be caused by XQP problems. To address these problems, the latest XQP related patches must be installed. At a minimum, the following patch levels should be installed:

Alpha Kits	Platform
VMS72_F11X-V0200	OpenVMS V7.2
VMS721_F11X-V0100	OpenVMS V7.2-1

If your Advanced Server participates in an OpenVMS Cluster, these patches must be installed on all cluster members, even those that do not run the Advanced Server.

4.1.25 External Authentication Fails with 15-Character Domain User Name

Problem:

Attempts to log on to an OpenVMS account for which external authentication is enabled are denied if the user enters a user name 15 characters in length. The following error message is displayed, where user-id is the user identification:

```
(user-id) does not exist or is invalid
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.26 Cannot Create a Share to an ISO-9660 or High Sierra CD-ROM Device

Problem:

Attempts to create a share to a device that has an ISO-9660 or High Sierra CD-ROM mounted might fail.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.27 PWRK$LMSRV Crashes During Client Operation Invoking NetLogon

Problem:

When a client performs an operation that invokes the NetLogon service (such as when a user attempts to log on to the server), and the client sends the wrong pipe name, the server crashes in module OPEN, routine file_exists. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
...
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=00000021, PC=002EDF6F, PSL=03C00000
%TRACE-F-TRACEBACK, symbolic stack dump follows
module name     routine name              ...   rel PC    abs PC

                                          ...   002EDF6F  002EDF6F
OPEN            file_exists               ...   000000C7  000872FF
OPEN            NT_openX_open2            ...   00000338  00088694
NTCREATE        smbntcreateX              ...   000001C4  0009F1B0
SMBWORK         smbwork                   ...   00000DE8  0007ECA4
                                          ...   002BB885  002BB885
MTS$MAIN        main                      ...   00000029  00029995
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.28 Partial Synchronizations Require Excessive Time to Complete

Problem:

When the Advanced Server is the primary domain controller (PDC), partial synchronizations that require more than one update message to be sent from the PDC to the BDC might take an inordinate amount of time to complete.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.29 External Authentication for User Account in a Trusted Domain Fails

Problem:

When a user with an account in a trusted domain attempts to log on to an OpenVMS account for which external authentication is enabled, the user's attempted logon might fail. The problem typically occurs when many logons are occurring simultaneously.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.30 Server Crashes with ACCVIO in Routine FIDGetCache

Problem:

The server might crash with an access violation (ACCVIO) in module ODS2$FIDCACHE, routine FIDGetCache. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=00000000010
%TRACE-F-TRACEBACK, symbolic stack dump follows
image         module       routine          line   rel PC
PWRK$FSLIB_ODS2 ODS2$FIDCACHE FIDGetCache       32276 ...01C94
PWRK$FSLIB_ODS2 ODS2$FIDCACHE ODS2GetFIDCache  33962 ...06714
PWRK$FSLIB_ODS2 ODS2$FILE     ODS2LookupFile   30532 ...00DC8
PWRK$FSLIB_ODS2 ODS2$FILELIB  ODS2GetDirectory 27678 ...00AF4
PWRK$FSLIB_ODS2 ODS2$FILE     ODS2LookupPath   30408 ...00AB0
PWRK$FSLIB_ODS2 ODS2$FILE     ODS2LookupFile   30506 ...00D2C
PWRK$FSLIB_ODS2 ODS2$LIB      ODS2Stat         34009 ...02AEC
```

In addition, the log file would contain many informational messages from the FID cache and ThreadLock/Unlock routines.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. The crash and the extraneous informational messages should no longer occur.

4.1.31 SAM Database Becomes Corrupted After Shutdown

Problem:

If the server shuts down while updates to the SAM database are in progress, the SAM database might become corrupted, especially when update activity is high, such as during a full replication or when using scripts to add or remove a large number of users.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Various ECOs, patch kits, and recommendations for earlier releases of the Advanced Server, provided a fix for this problem that interlocked the PWRK$SHUTDOWN.COM procedure with stopping the NetLogon service. The new fix provided with the Advanced Server V7.3 for OpenVMS does not include the interlocking of NetLogon in PWRK$SHUTDOWN.COM. It is no longer necessary to interlock stopping the NetLogon Service with PWRK$SHUTDOWN.COM. Any such customized changes can be removed.

4.1.32 SAM Corruption Issues Addressed

Problem:

Previously, it was possible for the SAM database to become corrupt. The causes were many and various, but always resulted in similar symptoms, which included the following:

- SAM database replication fails during partial synchronizations or full synchronizations, or both

- The following ADMINISTER commands fail, and the "LM-E-ERROR_GEN_ FAILU general failure" error message is displayed:

  - SHOW COMPUTERS

  - SHOW GROUPS/FULL

  - SHOW TRUSTS

  - SHOW USERS/FULL

- When the server attempts to access any objects stored in the SAM database (such as computers, groups, trusts, and users), it crashes. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image    module    routine   . . .  rel PC         abs PC
PWRK$LMRPCAPISHR  SERTL  RtlLengthSecurityDescriptor
                              . . . 0000000000000BD8 0000000000730978
PWRK$LMSRV  SECDESCR  PegSamrSetSecurityObject
                              . . . 0000000000001904 00000000001FDF24
PWRK$LMSRV  SAMRPC  SamrSetSecurityObject
                              . . . 00000000000000F8 00000000000D9AD8
 .
 .
 .
```

- Even if the database is corrupted, the preceding symptoms still might not appear. To test the database, enter the following SAMCHECK command while the server is not running. (Note that SAMCHECK is an unsupported tool.) This example shows the expected output for a sound database.

  ```
  $ SAMCHECK -s

  No corruption was detected in the SAM database.
  ```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Note that it is still possible for SAM corruption to occur. The most common cause is improperly shutting down the Advanced Server. To avoid SAM corruption, always use the SYS$STARTUP:PWRK$SHUTDOWN.COM shutdown procedure whenever

stopping the Advanced Server and also prior to shutting down the OpenVMS system.

4.1.33 PWRK$LMSRV Crashes in Module PFS$OPS, Routine PFS_setextattr

Problem:

Under some circumstances, when the file server is attempting to create ACEs (access control entries) for a file or directory, the server crashes due to an ACCVIO in the PFS$OPS module, routine PFS_setextattr. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=000000000000
0003, PC=0000000000438EE8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image     module    routine   . . .  rel PC         abs PC
PWRK$CSSHR_V7  PFS$OPS  PFS_setextattr
                                        0000000000011708 0000000000438EE8
PWRK$CSSHR_V7  PFS$OPS  PFS_copyfile 00000000000044C8 000000000042BCA8
PWRK$LMSRV  MVCP  treecopy          0000000000000624 000000000012E8B4
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.34 BDC Servers Experience High CPU Utilization and Replication Traffic, or ADMINISTER Commands Fail with "RPC Server Is Unavailable" Errors

Problem:

One or both of two problems might occur:

- As reported in Section 4.1.17, BDC Servers Experience High CPU Utilization and Replication Traffic, the PWRK$LMSRV process on a backup domain controller (BDC) server might consume a high percentage of the CPU time during replication of domain security (SAM) databases. In this case, the replication traffic is excessive, and the server event log includes unexpected entries 5716, 5717, 5718, and 5719, depending on the replication process being performed.

- ADMINISTER commands fail with the following error message:

  ```
  -LM-E-RPC_S_SERVER_UN, The RPC server is unavailable
  ```

  Note that this error message does not necessarily indicate the problem being documented here; it might also appear when the RPC server is indeed unavailable.

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS.

4.1.35 Server Crashes with Access Violation in DirRecycleDirectory

Problem:

The file server might crash due to an ACCVIO while a directory is being accessed by more than one client. For example, it might crash in the DIRRecycleDirectory routine of the ODS2$DIRCACHE module. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image    module    routine    . . .   rel PC           abs PC
PWRK$FSLIB_ODS2  ODS2$DIRCACHE  DIRRecycleDirectory
                                  0000000000002928 000000000A9A9F8
PWRK$FSLIB_ODS2  ODS2$DIRCACHE  DIRMaintenance
                                  0000000000003F40 0000000000A9C010
 .
 .
 .
```

In addition, one or more "dce on purgatory queue without bit lit" messages might be logged in the PWRK$LMSRV log file.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.36 Server Crashes in ODS2NewASUSecurityAce

Problem:

The server might crash due to an ACCVIO in module ODS2$LIB, in routine ODS2NewASUSecurityAce. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
  image    module    routine    . . .   rel PC           abs PC
PWRK$FSLIB_ODS2  ODS2$LIB         ODS2NewASUSecurityAce
                                  00000000000026AC 0000000000A0AF7C
PWRK$FSLIB_ODS2  ODS2$LIB         ODS2SetASUSecurity
                                  000000000000294C 0000000000A0B21C
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.37 "release_secure_channel_lock failed" Error Occurs, with Replication Failure

Problem:

The following error message is recorded in the PWRK$LMSRV log file:

```
release_secure_channel_lock failed , R0 status 00002124
```

This error typically occurs during replication of the SAM databases and is followed by SAM database replication failures.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.38 PWRK$LMSRV Process crash in RPCBIND/rpc__binding_free

Problem:

The PWRK$LMSRV process might crash in image PWRK$LMRPCSHR with a process traceback that shows an ACCVIO in RPCBIND/rpc__binding_free, called from CNSRV AbortAssociation, following a series of IPC error messages regarding a full or closing pipe such as:

```
IPCerr\RPC-56B8\CLOSE.3129 :#373717 [invalid pipe end] failure writing
EOF
    Status = 2264 (0x8D8), %SYSTEM-W-MBFULL, mailbox is full
IPCerr\RPC-56B8\freepd.3332 can't free write IOSB 0x081CCC18
IPCerr\RPC-3778\SEND.2320 }#2929674 [invalid pipe end]  sendmsg error
```

These error messages might also be seen without a corresponding PWRK$LMSRV crash.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.39 PWRK$LMSRV Crashes with "Buffer Insane" Messages

Problem:

The PWRK$LMSRV process might crash with error messages similar to the following in the PWRK$LMSRV log file:

```
14-JUL-2000 10:11:59.38 20200268:03B55A40 Data in buffer insane!
PANIC: aborting from module AS$BLD_ROOT:[AS.UTIL.SRC]GC.C;1 at line 437!
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.1.40 Interdomain Trust Stops Working

Problem:

In earlier releases of the Advanced Server, secure channels for interdomain trust relationships would stop functioning during periods of heavy channel traffic. In addition, during server startup, if no domain controllers were available on the trusted side of the channel, the communication channel would not be initialized, and the trusts would not work as expected.

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS. When a channel stops functioning because of heavy traffic, the server software will reopen the communication channel. When a channel does not get initialized because domain controllers in the trusted domain are not available, the server software will initialize the channel when the domain controllers become available.

4.1.41 PWRK$LMSRV Crashes in Routine ssignon_gethostmap

Problem:

When using external authentication with the Advanced Server, the PWRK$LMSRV.EXE crashes. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
   image    module    routine    line   abs PC
PWRK$LMSRV  SSIGNON_PROC  ssignon_gethostmap
                              88482    0000000000000984
PWRK$LMSRV  SSIGNON_PROC  process_acme_message
                              88828    00000000000019DC
PWRK$LMSRV  SSIGNON_COM   receive_comp_handler
                              23651    0000000000000A58
PWRK$LMSRV  SSIGNON_COM   ssignon_work   24150   0000000000001828
 .
 .
 .
```

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS.

4.1.42 PWRK$LMSRV Process Crashes in Routine CheckMsgAuthenticator

Problem:

The server might crash with an ACCVIO in routine CheckMsgAuthenticator. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
   image    module    routine   line   . . .   abs PC
PWRK$LMSRV  SSIGNON_PROC  CheckMsgAuthenticator
                              108897 0000000000004698
PWRK$LMSRV  SSIGNON_PROC  process_acme_message
                              106887 0000000000001490
PWRK$LMSRV  SSIGNON_COM   receive_comp_handler
                              23651    0000000000000A58
PWRK$LMSRV  SSIGNON_COM   ssignon_work   24150   0000000000001828
 .
 .
 .
```

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS.

4.2 File Access/Printing Problems

This section describes file access and printing problems corrected in Advanced Server V7.3 for OpenVMS.

4.2.1 Files Inherit Wrong or Inappropriate ACEs

Problem:

When creating a subdirectory, OpenVMS copies both the parent directory's access control permissions (A) and inheritable permissions (B) correctly. However, when creating a nondirectory file, OpenVMS also copies the parent directory's access permissions (A) (along with its inheritable permissions (B)) to the new file. Hence, the parent's directory access control permissions (A) are erroneously interpreted as the new file's access control permissions. The correct behavior is to have the parent's inheritable permissions interpreted as the file's access control permissions.

For an overview on file security information and the handling of directory permissions and ACEs by the Advanced Server, OpenVMS, and Windows NT systems, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Directory access control permissions (A) are no longer propagated to the created file's access control permissions. In the case of files created by the Advanced Server, only the parent directory's inheritable permissions (B) are propagated as the file's access control permissions.

In the case of files created by other OpenVMS applications, neither the parent directory's inheritable permissions nor its access control permissions are propagated to the file. Instead, the parent's inheritable permissions are propagated to the file at the time the file is accessed by the Advanced Server.

Furthermore, when the Advanced Server accesses a file with access permissions wrongly propagated from the parent directory, the server ignores those access permissions. Instead, the server interprets the proper access permissions — those that were propagated to the file as inheritable permissions. These permissions become the file's access control permissions.

To fix existing ACEs that have incorrect security information, use the utility PWRK$FIXACE.EXE. To delete ACEs, you can use the PWRK$DELETEACE utility. For more information, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*.

4.2.2 Cannot Create File on Disk Because of Insufficient Space for Index Header Blocks

Problem:

An attempt to create a new file in a shared directory can fail because not enough index header blocks are available to store "PATHWORKS" ACEs. Disk space on the disk volume appears sufficient for creating the file, but the file creation fails because the disk volume's index file is full. This problem can be exacerbated by the OpenVMS-related problem reported in Section 4.2.1, Files Inherit Wrong or Inappropriate ACEs. For example, when directory-specific and inherit-only ACEs are propagated inappropriately to a new file's descriptor, these ACEs consume more index blocks and disk space.

Solution:

While attempts to create shared files on disk volumes that have insufficient space for creating index header blocks will still fail, the fixes reported in Section 4.2.1, Files Inherit Wrong or Inappropriate ACEs, significantly reduce the frequency and likelihood of such failures in Advanced Server V7.3 for OpenVMS.

4.2.3 Creators of Files in Shared Directories Do Not Inherit Ownership and Might Lose Access to the Created File

Problem:

Ownership of a file created by the Advanced Server was set to the parent directory's owner instead of the file's creator. This is caused when the Advanced Server requests that OpenVMS propagate the parent directory's ownership and other security information to the created file.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Advanced Server file servers no longer rely on OpenVMS for propagating ownership information to newly created files. The file server always writes explicit ownership information for a new file (or directory) at creation, so that the file creator is guaranteed ownership.

4.2.4 File Name Prompt Does Not Appear When Printing to a Windows NT Shared Printer That Is Set to Print to Port FILE:

Problem:

When printing to a print share that is set up on a Windows NT print server that has "FILE:" enabled as the printer port (the FILE: property is located under the Ports tab for the printer's properties), the file server does not always prompt for a file name, as it should.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.2.5 Attempts to Copy a Read-Only File onto an Existing Shared File Results in "Access Denied" Error

Problem:

In versions of the Advanced Server prior to V7.3, an attempt to copy a read-only file onto a share to replace an existing file that is not read-only produces the following results:

- An "Access Denied" error

- The target file is made read-only, behavior that does not emulate Microsoft behavior, as is intended

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. The file is copied correctly. To maintain compatibility with Microsoft operating systems, the read-only attribute is not applied to the resulting file.

4.2.6 Users with Logons Restricted to One Workstation Cannot Print to Shared Printers on Other Workstations

Problem:

If a user is restricted to logon to a domain from only one workstation, the user cannot print to a shared printer on another workstation.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.2.7 Unlocked User Account Denied Access, Event 1909 Logged: "Account Locked Out"

Problem:

After a user account has been locked out and then is unlocked again (for example, when the account lockout duration is exceeded or the system administrator manually unlocks the account), the user should once again be allowed to log on to the domain in question. However, the user might be denied access, with event log message 1909 stating that the account is locked out.

This problem occurs when the Advanced Server is a backup domain controller (BDC) and is unable to detect that the account had been unlocked again. After the account was unlocked, if a partial synchronization occurs, but not a full synchronization, the Advanced Server still does not receive the status change information as it should. The problem is resolved after a full synchronization.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.2.8 "Access Denied" Error Messages Received Sporadically

Problem:

When clients attempt to access Advanced Server resources, they might sporadically receive "Access Denied" errors, but still acquire access. In certain circumstances, the "Access Denied" errors could also result in the Advanced Server stalling. For example, an excessive number of "Access Denied" errors occur, and the Alerter service is unable to send alert messages to one or more alert recipients (user accounts listed by the AlertNames parameter), causing the Advanced Server to stall.

Solution:

This problem of receiving sporadic "Access Denied" messages is resolved in Advanced Server V7.3 for OpenVMS. To avoid the problem of the Advanced Server stalling because of the Alerter service, keep the number of user accounts receiving alerts to a minimum, and make sure that those user accounts that should receive alerts are always logged onto the domain.

4.2.9 Clients Cannot Access Files with Long File Names Containing Multiple Periods

Problem:

Certain files on ODS-2 disk volumes are not accessible by clients on an Advanced Server V7.2 for OpenVMS server if these files were created on a PATHWORKS V6 server and have long file names containing multiple periods. On ODS-2 volumes, file names are restricted to 39 characters in the file name and 39 in the extension. The Advanced Server V7.2 for OpenVMS incorrectly changed the way it encodes file names. The Advanced Server V7.3 for OpenVMS now encodes file names the same way that PATHWORKS V6 servers do.

Solution:

This problem is addressed in Advanced Server V7.3 for OpenVMS. The PWRENAME utility was made available to rename such files to make them accessible by Advanced Server V7.2 for OpenVMS clients, as described in Section 3.26, File Renaming Utility for Long File Names with Multiple Periods. (Because the Advanced Server V7.3 for OpenVMS encodes file names in the same way as does PATHWORKS V6 servers, V7.3 server clients can access the files with no problem.) Note that you can also solve this problem by converting your disk to ODS-5 (for instructions, refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide*).

4.2.10 Certain Applications Might Fail When Attempting to Display Files on ODS-5 Disk Volumes

Problem:

Certain MS-DOS applications attempting to enumerate files in an Advanced Server share directory residing on an ODS-5 volume will fail if the file names are in lowercase. These same applications work fine on an ODS-2 volume.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.2.11 Directory Might Appear Empty Even When It Is Not

Problem:

When a client attempts to display the contents of a directory that contains a file with no file name and extension, such as ".;1", the directory will appear empty although it does contain files.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3 ADMINISTER Command Problems

This section describes ADMINISTER command problems corrected in Advanced Server V7.3 for OpenVMS.

4.3.1 REMOVE SHARE Command Fails with Share Name That Has Trailing Spaces

Problem:

Attempts to remove a share whose name has one or more trailing spaces fail. For example, a user adds a share, specifying a space as the last character of the share name, such as in the following example:

```
LANDOFOZ\\TINMAN> ADD SHARE "TORNADO " USER1:[TORNADO_FILES]
```

Attempts to remove that share fail with either of the following commands:

```
REMOVE SHARE "TORNADO "
REMOVE SHARE TORNADO
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.2 OpenVMS Users Not Logged on to the Network Cannot Use the ADMINISTER SEND Command

Problem:

The SEND command should not require network logon if specified in the following format, without qualifiers (one exception is the /SERVER=*server-name* qualifier, if *server-name* is the local server):

```
SEND computer-name message
```

However, attempts to use the SEND command in this way without network logon produce the following message:

```
%PWRK-E-LOGONREQUIRED, you must be logged on to perform the
requested operation
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.3 ADMINISTER Commands Act on Nonexistent, Hidden Shares As If the Shares Exist

Problem:

If the name of a nonexistent, hidden share is specified with the ADMINISTER SHOW SHARE command (the names of hidden shares end with a dollar sign, such as F$ or TAR$), an error message should indicate that the specified share does not exist. Instead, the SHOW SHARE command displays the share along with a blank description, as in the following example in which the nonexistent share name is xyz$:

```
$ ADMINISTER SHOW SHARE XYZ$

Shared resources on server "SUTTLE":

Name          Type      Description
------------  --------- ----------------------
XYZ$          Directory
```

In addition, if such a share name is specified with the ADMINISTER MODIFY SHARE command, it produces a message indicating an internal error as in the following example:

```
$ ADMINISTER MODIFY SHARE XYZ$ /LIMIT=7
%PWRK-E-ERRMODSHARE, error modifying share "XYZ$"
-LM-E-NERR_INTERNALER, an internal error has occurred
```

This command should produce a message indicating that the share does not exist.

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS.

4.3.4 ADD TRUST Command Fails

Problem:

When using the ADD TRUST command to add a trust, if you omit the domain name in the command line, the ADMINISTER user interface prompts you for the domain name, and after you enter the domain name, it prompts you for the password. If you enter a password that includes lowercase characters, spaces, or other nonalphanumeric characters and do not enclose the password in quotation marks, the password is handled incorrectly. First, it displays the password you entered. The password should not be displayed. Second, it should prompt you to verify the password you entered, but it does not. Finally, your attempt to add the trust fails with an error message stating that an invalid password was entered, as shown in the following example:

```
LANDOFOZ\\TINMAN> ADD TRUST /TRUST
_domain name: KANSAS
_PASSWORD: hayfield
This might take some time, do you wish to continue? [YES or NO] (YES) :
%PWRK-E-ERRADDTRUST, error adding trust between domains "KANSAS" and
"LANDOFOZ"
-LM-E-ERROR_INVALID_P, invalid password specified
```

Solution:

These problems are resolved in Advanced Server V7.3 for OpenVMS.

4.3.5 SHOW COMPUTERS Command Displays Inconsistent Information from Servers in Different Subnets of the Same Domain

Problem:

In domains that include subnets, performing an ADMINISTER SHOW COMPUTERS command on Advanced Servers located in different subnets will return inconsistent information. From one subnet in the domain, certain computers might be shown as available, while from another subnet, the same computers are shown as unavailable.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.6 Once Permissions Are Removed from a File or Directory, Owner Cannot Change Permissions

Problem:

If an owner of a file or directory removes all permissions from a file or directory (for example, by using the ADMINISTER SET FILE /PERMISSION=REMOVE command), although the owner cannot access that file or directory, the owner should still be able to change the permissions on it. However, using the ADMINISTER command interface, the owner cannot change permissions on the file or directory from which permissions were removed. Furthermore, an error message states (incorrectly) that "directory permissions" cannot be specified if the path specification is a file.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.7 Time Values in SHOW Command Displays Fail to Roll Over Past 23 Hours

Problem:

Time values indicating the total number of hours, such as those indicating the duration of a session connection, fail to roll over at the 24th hour. For example, in the following SHOW SESSIONS command, the connection time for the Administrator account is displayed as 1 29:01 instead of 2 05:01:

```
LANDOFOZ\\TINMAN> SHOW SESSIONS

User Sessions on server "TINMAN":

Connected Users    Computer         Opens  Time      Idle      Guest
-----------------  ---------------  -----  --------  --------  -----
ADMINISTRATOR      TINMAN_176           3  1 29:01   0 00:00   No
SCARECROW          TINMAN_149           0  0 21:18   0 18:19   No

  Total of 2 connected users
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.8 SHOW FILES /PERMISSIONS Command Produces "The RPC server is unavailable" Error

Problem:

When file names in a share contain non-standard characters, repeated executions of the ADMINISTER command SHOW FILES *sharename* /PERMISSIONS can result in messages such as the following examples. In addition, the permissions might be displayed incorrectly for the files.

```
%PWRK-E-ERRGETFILEACC, error getting access information for
"\\SPC21\AMST\O'.TXT"

-LM-E-RPC_S_SERVER_UN, The RPC server is unavailable
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.9 Administrator Cannot Take File Ownership

Problem:

Once all permissions are removed from a shared directory, an administrator, using the ADMINISTER TAKE FILE OWNERSHIP command, is not able to take ownership of the directory or of files in the directory. No messages are displayed. However, if the administrator uses the SHOW FILES command, an "insufficient privileges for attempted operation" error message is displayed.

For a information about restrictions pertaining to taking ownership, see Section 13.7.9 and Section 13.11.2.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.10 SHOW USER Command Enhanced to Display Several Additional Fields

Problem:

The ADMINISTER SHOW USER display with either the /FULL or /ACCOUNTS qualifier now includes the following fields:

```
Last Log On: 08/23/00 05:07 PM
Password Last Set: 06/30/00 11:03 AM
Password Changeable: 06/30/00 11:03 AM
Password Expires: 09/11/00 11:03 AM
```

Solution:

This enhancement is included in Advanced Server V7.3 for OpenVMS.

4.3.11 SHOW FILES with Wildcards Issued Against a Large Directory Might Fail

Problem:

Attempts to list a directory containing many files might fail with one of the following error messages:

```
%PWRK-E-SEARCHFAIL, error searching for  \\LP33\LPC1\*.*
-LM-E-ERROR_GEN_FAILU, general failure

%PWRK-E-SEARCHFAIL, error searching for "\\SMILE\TEST2\S*.*"
-LM-E-ERROR_NOUNICODE, no unicode translation
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.12 The Password of a Newly Created Account Is Not Expired by Default

Problem:

By default, a user account is created with an expired password. The user must enter a new password at first logon. (To remove the need for users to reset their passwords at first logon, use the /FLAGS=(NOPWDEXPIRED) qualifier with the ADD USER command.) However, the Advanced Server V7.2A-ECO3 for OpenVMS product is not setting the password of a newly created account as expired. Thus, when first logging in, a new user would not have to reset the account password, as expected.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.3.13 REGUTL SHOW PARAMETERS With Wildcards Displays Subset of All Data That Can Be Displayed

Problem:

Using the REGUTL command SHOW PARAMETERS with a wildcard (such as, SHOW PARAMETERS * *) does not display all parameters that fit the wildcard specification. It displays only those server parameters equivalent in name to the parameters originally defined in the PATHWORKS V6 (Advanced Server) software (the LANMAN.INI file). In other words, the SHOW PARAMETERS command cannot display all the server-related registry data that can be set. In specific, the command omits the LanmanIniMigrated parameter in the following key:
SYSTEM\CurrentControlSet\Services\AdvancedServer\Parameters

This parameter was added as part of the Advanced Server for OpenVMS software and is foreign to PATHWORKS V6.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.4 Windows 2000 Related Problems

This section describes problems related to the interaction with Windows 2000, corrected in Advanced Server V7.3 for OpenVMS.

4.4.1 Backup Domain Controller Cannot Be Added to a Windows 2000 Domain

Problem:

When configuring a backup domain controller (using PWRK$CONFIG) in a domain that is running a Windows 2000 primary domain controller, an error occurs (reported from the PWRK$MAKEMACH configuration tool), preventing the computer from being added to the domain.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.4.2 Windows 2000 Clients Might Be Unable to Delete Shared Files

Problem:

Windows 2000 clients might be unable to delete files from the top level of an Advanced Server share. An error is received, such as one that indicates that the source file cannot be read or path cannot be found.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.4.3 Windows 2000 PDC Fails During Replication to Advanced Server BDC

Problem:

In a domain with a Windows 2000 primary domain controller and one or more OpenVMS Advanced Server backup domain controllers, attempts to replicate from the Windows 2000 PDC to an OpenVMS Advanced Server BDC fail (replication is incomplete). The failure is indicated in the Windows 2000 PDC event log. The cause of the failure is Windows 2000 specific attributes in the data that is sent during the replication process.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. The Windows 2000 specific attributes in the data are safely ignored.

4.4.4 Windows 2000 Clients See Blank Date Fields for Shared Files

Problem:

When users of a Windows 2000 client view the properties of a shared file with an unknown file extension, the date fields are blank. In addition, the last four date fields stored in the UNKNOWN=%X80 ACE are all zeros.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.4.5 Logon Denied After Adding a User Account or Changing a Password in a Domain with a Windows 2000 Primary Domain Controller

Problem:

After using the ADMINISTER interface to add a user or modify a user password in a domain with a Windows 2000 PDC, it is not possible to log on as that user — an "Invalid username or password" message is displayed.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.4.6 Windows 2000 Clients Must Use Server-Based Licensing

Problem:

Client-based licensing software components cannot be installed on a Windows 2000 client.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. Windows 2000 clients can obtain client license software either from the PATHWORKS 32 distribution kit, the PWLICENSE share, or from HP customer support. To enable clients to access the PWLICENSE share and install the client licensing software, make sure that server-based licensing is enabled.

4.4.7 Windows 2000 Backup Fails to Advanced Server Share

Problem:

A Windows 2000 backup fails when attempting to write to an Advanced Server share.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5 Transport Problems

This section describes problems related to the use of transport protocols with the Advanced Server, corrected in Advanced Server V7.3 for OpenVMS.

4.5.1 Advanced Server Loses Its Name Registration in Windows NT WINS Server Database

Problem:

If the Windows NT WINS Server Renewal Interval becomes less than the four-day default, then the Advanced Server participating as a WINS client can lose its name registration in the Windows NT WINS Server database. This can happen because the Advanced Server continues to update its name registration using the default four-day interval and not the shorter interval indicated by the WINS Server. When the registration update does not occur within the new Renewal Interval period, the Advanced Server is removed from the WINS database.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5.2 System Crashes in the PWIP_CALLUP Routine

Problem:

The PWIPDriver might, on rare occasions, send the file server a message that is meant for a session that is no longer active; in other words, the stream for the session is already closed or in the process of being closed and, as a result, some of the data structures have been reinitialized. When the server tries to process this message, the system crashes in module PWRK$STREAMSOS_V7, with a failing PC in routine PWIP_CALLUP_C.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5.3 System Crashes in PWRK$STREAMSOS_V7

Problem:

While trying to remove a nonexistent element from an internal timer queue, the Advanced Server can cause a system crash with characteristics similar to the following:

```
Current Process:    PWRK$KNBDAEMON
Current Image:      DSA0:[SYS0.SYSCOMMON.][SYSEXE]PWRK$KNBDAEMON.EXE;1
Failing PC:         FFFFFFFF.854226C0   KNBNQ_UNSET_TIMER_C+00198

Failing Instruction:
    KNBNQ_UNSET_TIMER_C+00198:      LDQ_U           R16,#X001F(R1)
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5.4 System Crashes in Routine RcvUDSthand

Problem:

The system might crash due to an ACCVIO in routine RcvUDSthand of module STREAMSUB in the sharable library PWRK$STREAMSSHR, with the following bugcheck:

```
Bugcheck Type: SSRVEXCEPT, Unexpected system service exception
VMS Version: V7.1-1H1
Current Process: PWRK$LMBROWSER
Current Image: $1$DKB0:[SYS0.SYSCOMMON.][SYSEXE]PWRK$LMBROWSER.EXE;5
Failing PC: FFFFFFFF.800086E8 OTS$MOVE_C+000B8
Failing PS: 10000000.00000003 Module:
SYS$BASE_IMAGE Offset: 000066E8
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5.5 15-Character Alias Name Truncated in Claimed NETBIOS Name

Problem:

When a user specifies a cluster alias name 15 characters in length, one of the two associated NETBIOS names that get claimed is truncated to 14 characters. This is the name that is used for datagrams.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.5.6 Call to KNBNQ_UNSET_TIMER in the PWRK$LMMCP Process Might Cause OpenVMS to Crash

Problem:

While the PWRK$LMMCP is executing, during a call to the KNBNQ_UNSET_ TIMER routine, the server might cause OpenVMS to crash with the following system bugcheck information:

```
Bugcheck Type: INVEXCEPTN, Exception while above ASTDEL
Current Process: PWRK$LMMCP Current Image:
AXPA$DKC0:[SYS0.SYSCOMMON.][SYSEXE]PWRK$LMMCP.EXE
Failing PC: FFFFFFFF.884386D0 KNBNQ_UNSET_TIMER_C+00198
Failing PS: 00000000.00000804
Module: PWRK$STREAMSOS_V7 Offset: 0006E6D0
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.6 Cluster-Related Problems

This section describes problems relating to servers participating in OpenVMS Clusters. These problems have been corrected in Advanced Server V7.3 for OpenVMS.

4.6.1 With Open File Caching, PWRK$LMSRV Hangs with Deadlock

Problem:

The Advanced Server might hang in the following situation:

- An Advanced Server runs on at least two nodes in an OpenVMS Cluster

- Open file caching is disabled

- Frequent file open and close operations are being performed by multiple clients

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.6.2 Multiple Servers Perform Replication in a Cluster

Problem:

In a cluster, only one cluster member should actually participate in replication of the SAM databases. When multiple members attempt to replicate the database simultaneously, the replication fails.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.6.3 BDC Loses Connection to PDC; Unable to Participate in Replication

Problem:

In WAN environments in which the Advanced Server runs in a cluster as a Backup Domain Controller (BDC), and the primary domain controller (PDC) is on a different LAN segment than that of the cluster BDC, the remote PDC might resolve the cluster alias to the wrong cluster BDC member. As a result, the cluster BDC is unable to participate in replication of the SAM database.

The system manager might notice user account modifications are not being replicated to the cluster BDC. Users might notice password updates do not take effect. Partial synchronization messages for the cluster BDC might be missing from the event log.

The cause of the problem can be explained as follows: in such environments, prior to Advanced Server V7.3 for OpenVMS, it was necessary to ensure that a WINS or LMHOSTS entry for the Advanced Server cluster alias points to the cluster member with the active daemon. If the WINS or LMHOSTS entry is not set to the cluster member with the active daemon, the remote PDC will resolve the cluster alias to the wrong cluster BDC member, preventing the cluster from being able to participate in replication.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. It is still necessary to define an LMHOSTS entry for the Advanced Server cluster alias; however, that entry can point to any cluster member that is running the NetLogon service, whether the member has an active or inactive daemon. When the PDC announces SAM database updates (by means of a pulse message), if that announcement gets to a cluster node with an inactive daemon, the message is forwarded to the cluster member with the active daemon. Then, replication will take place appropriately.

4.7 Browser Problems

This section describes problems with the Browser service corrected in Advanced Server V7.3 for OpenVMS.

4.7.1 Browser Fails to List Entire List of Servers or Domains

Problem:

In large domains, or in networks with many domains, clients using an Advanced Server backup Browser do not receive the complete list of the servers or domains.

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS.

4.8 Advanced Server Interaction with DEC Rdb (Oracle) Problems

This section describes problems with the Advanced Server interacting with Oracle (DEC Rdb).

4.8.1 Advanced Server Is Incompatible with Certain Versions of Oracle

Problem:

Oracle versions prior to V7.3.3 are incompatible with the Advanced Server for OpenVMS due to Oracle's use of termination mailboxes. This incompatibility results in server crashes similar to the following:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=FFFFFFFF8049F044, PS=0000001B

  image     module     routine   . . . rel PC        abs PC
                                       0000000000000000 FFFFFFFF8049F044
PWRK$CSSHR_V7  LIBIPC   mbreaddoneast 000000000000844C 00000000003C6C5C
```

Solution:

This problem is resolved in Advanced Server V7.3 for OpenVMS. A previous restriction against Oracle versions prior to V7.3.3 has been lifted.

5

Problems Corrected in Advanced Server V7.3-ECO1 for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3-ECO1 for OpenVMS. These software changes will also be included in future ECOs. The problems are described in the sections indicated in the following table:

Problem Type	Section Number
Server Problems	5.1
File Access/Printing Problems	5.2
User Interface Command Problems	5.3
Windows 2000 Related Problems	5.4
Transport Problems	5.5
Cluster-Related Problems	5.6
Miscellaneous Problems	5.7

5.1 Server Problems

This section describes the file server problems corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.1 Files Created by Windows 95 or Windows 98 Clients Have Wrong Timestamp

Problem:

Files created from Windows 95 and Windows 98 clients in shared directories are given incorrect timestamps for their creation date. When viewing file properties, the time displayed for the creation date would be off by one or more hours, depending on the timezone of the server.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.2 PWRK$LMSRV Crashes with Access Violation in Module ODS2$LIB

Problem:

The PWRK$LMSRV process might crash with an access violation in the module ODS2$LIB, in routine ODS2NewASUSecurityAce. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000006FDC004, PC=FFFFFFFF808BF9A4, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .  rel PC        abs PC
                                    FFFFFFFF808BF9A4 FFFFFFFF808BF9A4
 PWRK$FSLIB_ODS2  ODS2$LIB  ODS2NewASUSecurityAce
                                    00000000000026AC 0000000000C2D0DC
 PWRK$FSLIB_ODS2  ODS2$LIB  ODS2SetASUSecurity
                                    000000000000294C 0000000000C2D37C
 PWRK$FSLIB_ODS2  ODS2$OPS  ODS2_setsecurity
                                    00000000000117C0 0000000000BF97C0
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.3 PWRK$Monitor Crashes While Attempting to Output an OpenVMS Error Message (932)

Problem:

The PWRK$MONITOR process might crash in module cmtsvrmonsys while attempting to write out a system error message (possibly the OpenVMS error message with status code 932: "%SYSTEM-F-SUSPENDED, process is suspended"). The log file will include the following information:

```
  29-MAY-2001 13:32:47.73 21200233:00243DD8      PFS_CACHE_IMAGE
: PWRK$PCMSHR
  1-JUN-2001 11:07:48.17 21200233:002481E8 In module
<cmtsvrmonsys>, in function <MonitorServer>
  1-JUN-2001 11:07:48.29 21200233:002481E8      Message Text:
Error returned from sys$getjpi()
  1-JUN-2001 11:07:48.30 21200233:002481E8      Status Code: 932
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.4 Numerous Locks on a Resource Accumulate, Causing PWRK$LMSRV or the System to Crash

Problem:

The PWRK$LMSRV process might gradually become overloaded with multiple locks on a single resource, causing the system enqueue limit quota (ENQLM) to be exceeded. As a result, either the PWRK$LMSRV process might crash or an OpenVMS lock manager problem might cause the system to crash. The locks have a name beginning with "PWRK$om", such as PWRK$om_0093EA0002000100.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.5 PWRK$LMSRV Process Crashes in Module THREAD

Problem:

The Advanced Server might crash with the following error messages and traceback in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000030, PC=000000000041B560, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image           module  routine          line   rel PC  ...
PWRK$CSSHR_V7   THREAD  resume_0         16861 0000000000008520
PWRK$CSSHR_V7   THREAD  threadresumelast
                                         12759 0000000000003E0C
PWRK$CSSHR_V7   WORKQ   WorkQ_queue_work_safe
                                          9556 0000000000000DC8
PWRK$CSSHR_V7   WORKQ   WorkQ_queue_work
                                          9453 0000000000000B0C
PWRK$LMTASKSHR  QUEUE   queue_put        14706 00000000000000E4
PWRK$CSSHR_V7   LIBIPC  mbreaddoneast
                                         32735 0000000000008EC4
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.6 PWRK$LMSRV Crashes with ODS2ReadRMS Errors

Problem:

The PWRK$LMSRV process crashes with the following error messages in the PWRK$LMSRV log file previous to the crash:

```
ODS2ReadRMS: failed to rewind file,  status 000000
ODS2ReadRMS: failed to get record, status [various RMS codes]
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.7 Server Crashes in Module SERTL, Routine RtlValidSid

Problem:

With COM for OpenVMS in use, the server might crash with the following error messages and traceback in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000002, PC=0000000000310584, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image     module    routine        line    rel PC    ...
PWRK$LMAPISHR  SERTL  RtlValidSid 47830  0000000000000024
PWRK$LMSRV  ELF  AdtReportEvent    77822  0000000000000818
PWRK$LMSRV  EVENTDISP  ProcessReportEvent
                                   77673  00000000000003D8
PWRK$LMSRV  SSIGNON_PROC  process_acme_message_3
                                  108409  00000000000033A4
PWRK$LMSRV  SSIGNON_COM  receive_comp_handler
                                   51101  0000000000000BEC
PWRK$LMSRV  SSIGNON_COM  ssignon_work
                                   51599  0000000000001A10
PWRK$CSSHR_V7  MTS  MTS$CONTEXT_SWITCH
                                    6693  0000000000000104
PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
   .
   .
   .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.8 Server Stops Responding to Logon Requests

Problem:

The server might suddenly stop validating logon requests (NetLogon hangs). For example, when running a user script that adds user accounts (ADMINISTER ADD USER), the server might hang. Similarly, when issuing a command that requires access to the PDC, the server might not respond. A message might indicate that the PDC cannot be found.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.9 Authentication Fails for Domain User Names Exceeding 14 Characters in Length

Problem:

Attempts to log on to an OpenVMS account for which external authentication is enabled are denied if the user enters a user name exceeding 14 characters in length. The server should be able to authenticate user names with a maximum of 20 characters in length.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.10 PWRK$LMSRV Crashes in Module PFS$OPS, Routine PFS_setextattr

Problem:

Under some circumstances, when the file server is attempting to create ACEs (access control entries) for a file or directory, the server crashes due to an ACCVIO in the PFS$OPS module, routine PFS_setextattr. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000003, PC=0000000000438EE8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image     module    routine     line     rel PC          abs PC
PWRK$CSSHR_V7  PFS$OPS  PFS_setextattr
                                25208  0000000000011708 0000000000438EE8
PWRK$CSSHR_V7  PFS$OPS  PFS_copyfile
                                20033  00000000000044C8 000000000042BCA8
PWRK$LMSRV  MVCP  treecopy     56336  0000000000000624 000000000012E8B4
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.1.11 PWRK$LMSRV Crashes When Viewing Printer Properties

Problem:

When attempting to view printer properties with Windows NT printer management enabled, the server might crash in routine T_RegQueryValueEx, with the following error messages and traceback in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=FFFFFFFF804BFBE0, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine              line     rel PC ...
                                             0 0000000000000000
 PWRK$LMAPISHR  TREGWRAP  T_RegQueryValueEx
                                         75355 00000000000016A8
 PWRK$LMSRV  PRNDATA  SplGetPrinterData
                                        102246 0000000000000468
 PWRK$LMSRV  RPCSPOOL  RpcGetPrinterData
                                        112589 00000000000026FC
 PWRK$LMSRV  NTSPL_S  winspool_RpcGetPrinterData
                                         28048 0000000000006498
 PWRK$LMRPCSHR  RPCCALL  rpc__call_put  28446 0000000000000240
   .
   .
   .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.2 File Access/Printing Problems

This section describes file access and printing problems corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.2.1 Files Remain Open

Problem:

When a user with less than Full Control Access to a file views the security on that file, the file might be left in an "open" state. Subsequent attempts to delete or rename the file would fail.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.2.2 Directory Enumeration Incorrect If a File Named ".;1" Exists in the Directory

Problem:

When a client attempts to display the contents of a directory that contains a file named ".;1", the display will be incorrect. For example, the directory might appear empty although it contains files.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.2.3 Client Application Might Fail When Attempting to Create a Directory on a Share

Problem:

A client application might fail when attempting to create a directory on the Advanced Server. Before creating the directory, the client first queries the server to determine if the directory already exists. The server would return the "NO_MORE_FILES" error message, implying that the directory already exists. As a result, the client would then terminate its attempt to create the directory.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.3 User Interface Command Problems

This section describes user interface command problems corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.3.1 PWVER Command Problems

Problem:

Any of several problems with the PWVER command might arise:

- The PWVER ALL command might produce incorrect results. The display includes messages indicating that information about certain images could not be obtained.

- Pressing CTRL/Y fails to interrupt the PWVER command display.

- PWVER with a wildcard (*) terminates before displaying all the images that should be listed.

Solution:

These problems are resolved in Advanced Server V7.3-ECO1 for OpenVMS. The PWVER command is not needed for normal operation of the server. It is most often used by HP Customer Support to help solve problems at a customer's site.

5.3.2 Unable to Add Permissions to Local Share

Problem:

If a user uses the ADMINISTER command line interface to log in to a member server's local database and attempts to add permissions to a share in that database, the user might be prompted for the global domain password. This could happen if the member server's local domain (database) does not exist in the global domain, or the password for the local domain differs. In any case, the user should be able to modify permissions without providing the global domain's password.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.4 Windows 2000 Related Problems

This section describes problems related to the interaction with Windows 2000, corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.4.1 Attempt to Add or Copy a User Account Fails

Problem:

Adding a user in a mixed-mode Windows 2000 domain fails if the PDC's user account policy specifies a minimum password length, even when the password specified is long enough. Messages would be seen as in the following example:

```
LANDOFOZ\\TINMAN> add user smith/pass="ilikethisstuff"
%PWRK-E-ERRADDUSER, error adding user "SMITH"
-LM-E-NERR_PASSWORDHI, password too short or found in history list
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.4.2 DCL SET PASSWORD Command Fails in Windows 2000 Mixed-Mode Domain

Problem:

If the host server for authentication is a BDC in a mixed-mode Windows 2000 domain, the DCL SET PASSWORD command fails when attempted by an OpenVMS user marked for external authentication, and the hostmapped server user's password was last updated using the ADMINISTER MODIFY USER/PASSWORD command. The following example shows the error messages returned:

```
$ SET PASSWORD  Return
Old password:             Return
New password:               Return
Verification:               Return
%SET-I-SNDEXTAUTH, Sending password request to external authenticator
%SET-E-EXTPWDERR, Password could not be set by external authenticator
-SYSTEM-F-AUTHFAIL, authorization failure
-ACME-E-UNSPECIFIED, general error, see secondary status for details
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.4.3 Roaming User Profiles Cannot Be Saved on the Advanced Server

Problem:

In a Windows 2000 environment, roaming user profiles might not be saved on the Advanced Server. When a user logs out, error messages indicate that the file could not be copied or the file could not be found, and that the roaming profile could not be updated.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS. For a restriction pertaining to roaming profiles, see Section 13.4.18, Restriction on Roaming User Profiles.

5.4.4 Read-Only Attribute Is Removed When the File is Copied Over Itself

Problem:

If a read-only file on an Advanced Server share was copied over itself, the file's read-only file attribute would be removed.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.4.5 Access Denied When Copying a Subfolder of a Directory Tree Using the Windows 2000 Xcopy Command

Problem:

Using the xcopy command on a Windows 2000 client to copy a directory tree to an Advanced Server share might result in an "Access Denied" error immediately after creating a subdirectory. This problem does not occur on Windows NT or Windows 98 clients.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.4.6 Attempts to Add File Permissions from Windows 2000 Client Fails with "Object Picker Cannot Open" Message

Problem:

Attempts to add permissions to a file from a Windows 2000 client fail. The following message is displayed:

```
Object Picker cannot open because it cannot determine whether
node-name is joined to a domain.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.5 Transport Problems

This section describes problems related to the use of transport protocols with the Advanced Server, corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.5.1 System Hangs or Crashes with a Spinwait Bugcheck

Problem:

An Advanced Server running on a multi-CPU system might cause the OpenVMS system to hang or crash in PWRK$STREAMSOS with a CPU spinwait bugcheck.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.6 Cluster-Related Problems

This section describes problems relating to servers participating in OpenVMS Clusters. These problems have been corrected in Advanced Server V7.3-ECO1 for OpenVMS.

5.6.1 Server Hangs with One Server Cluster Member in the LEF State, Another Server Member with Multiple Copies of a "deadlock detected" Message

Problem:

When the Advanced Server in an OpenVMS Cluster is the PDC in a domain that includes several BDCs, it might hang. On one node, the server will be in the local event flag wait (LEF) state. On another node, the server log file will contain numerous copies of the following messages:

```
<timestamp> PCSCACHE\acquire_lock: deadlock detected -- retry
<timestamp> occured during conversion to PWMODE lock
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS.

5.7 Miscellaneous Problems

This section describes miscellaneous problems pertaining to the Advanced Server for OpenVMS.

5.7.1 Advanced Server Supplies Obsolete Version of File Used by eXcursion

Problem:

The Advanced Server supplies an obsolete version of SYS$COMMON:[SYSEXE]PCX$SERVER.COM. The file is used by eXcursion.

Solution:

This problem is resolved in Advanced Server V7.3-ECO1 for OpenVMS. The current version of the file is correctly installed in SYS$COMMON:[SYSEXE]. You can find the correct version on the PATHWORKS 32 distribution kit as file PCX_SERV.COM, or contact your HP customer support center.

6

Problems Corrected in Advanced Server V7.3-ECO2 for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3-ECO2 for OpenVMS. These software changes will also be included in future ECOs. The problems are described in the sections indicated in the following table:

Problem Type	Section Number
Installation and Configuration Problems	6.1
Upgrade Problems	6.2
Server Problems	6.3
File/Printer Share Problems	6.4
ADMINISTER Command Problems	6.5
Windows 2000 Related Problems	6.6
Transport Problems	6.7
Event Logging Problems	6.8
Cluster-Related Problems with Advanced Servers	6.9
Browser Problems	6.10

6.1 Installation and Configuration Problems

This section describes installation problems corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.1.1 Server Might Not Allow Extremely Large WSMAX Values on Large Systems

Problem:

On systems with very large amounts of memory, the server's MAX_WSMAX entry in MODPARAMS.DAT forces the WSMAX SYSGEN parameter to have an unnecessarily low value. This restricts the system manager's ability to provide extremely large working sets to other applications that execute on the same system. If the system is sufficiently large, the server's MAX_WSMAX entry is not necessary. When the entry is necessary, it might be smaller than it should be.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.1.2 Server Does Not Recognize EIA0: Adapter (for example, DE600/DE602)

Problem:

Previous versions of the Advanced Server did not recognize the EIA0: adapter (for Ethernet adapter DE600 or DE602, for example). Administrators were required to define a system logical name for EIA0: for each enabled transport (TCP/IP - PWRK$KNBDAEMON_DEVICE; DECnet - NETBIOS$DEVICE; NetBEUI - PWRK$NETBEUI_DEVICE).

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. The network interface device EIA0: is now included in the Advanced Server's list of known devices for all transport layers (TCP/IP, DECnet and NetBEUI).

6.2 Upgrade Problems

This section describes problems involving attempts to upgrade the Advanced Server, corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.2.1 Attempt to Upgrade Fails When Domain Name is LANGROUP

Problem:

Attempts to upgrade an earlier version of the Advanced Server for OpenVMS failed with the following error when the server's domain name is LANGROUP:

```
PWRK-F-CONFIGERR, severe error during configuration.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3 Server Problems

This section describes the file server problems corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.1 "release_secure_channel_lock failed" Error in Server Log and 5716 Event in Event Log

Problem:

Multiple users of the secure communication channel that is formed between a BDC and its PDC arbitrate for the channel using an OpenVMS lock. In previous versions of the Advanced Server, the arbitration did not always work successfully, and the channel would break temporarily.

Two side effects of this include:

1. The following message recorded in the server log:

    ```
    "release_secure_channel_lock failed, R0 status = 00002124"
    ```

2. The following events recorded in the event log:

    ```
    I 11/21/00 02:32:14 PM NETLOGON  None   5717   N/A  TINMAN
    I 11/21/00 02:32:12 PM NETLOGON  None   5715   N/A  TINMAN
    W 11/21/00 02:31:09 PM NETLOGON  None   5716   N/A  TINMAN
    I 11/21/00 02:31:08 PM NETLOGON  None   5715   N/A  TINMAN
    ```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.2 Configuration Manager Modifies Obsolete SYSGEN Parameter VIRTUALPAGECNT

Problem:

The Configuration Manager adds a MIN_VIRTUALPAGECNT entry in MODPARAMS.DAT although the SYSGEN parameter to which it refers (VIRTUALPAGECNT) is obsolete on all supported versions of OpenVMS for Alpha. Note that AUTOGEN ignores entries that refer to an obsolete parameter.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.3 Limitations When Joining a Domain as a Member Server Without Specifying Domain Administrator Information

Problem:

When you configure the Advanced Server as a member server (using PWRK$CONFIG.COM), you are given the option of supplying a user name and password of an existing domain administrator account to join the domain. If you choose not to supply this information, the configuration procedure succeeds, but you will not be able to manage your member server while logged into accounts in the domain. For example, if from the member server's domain (DOMAIN.DOM), you attempted to add a share using the ADMINISTER utility, you would receive the error message shown below:

```
DOMAIN.DOM\\TCMON> ADD SHARE TOOLS SYS$SYSDEVICE:[TOOLS]
%PWRK-E-ERRADDSHARE, error adding share "TOOLS"
-LM-E-ERROR_NETWORK_A, network access is denied
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. If you do not supply the domain administrator user name and password, and you add the member server to the domain manually, you will be able to manage your member server while logged into accounts in the domain.

6.3.4 Advanced Server Crashes in Routine gcfree

Problem:

The server might crash in routine gcfree of module GC. In some cases, the PWRK$LMSRV process might crash with an access violation. In this case, error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000004449FFC, PC=0000000000200790, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .  rel PC          abs PC
 PWRK$LMSRV  GC     gcfree        0000000000000320 0000000000200790
 PWRK$LMSRV  TRANS  transcleanup  000000000000020C 000000000013D46C
 PWRK$LMSRV  TRANS  smbtrans      0000000000001014 000000000013E274
 PWRK$LMSRV  SMBWORK smbwork      00000000000015FC 000000000011F50C
 .
 .
 .
```

In other cases, the server might crash in routine gcfree with a GC sanity check failure. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
12-FEB-2002 18:47:30.52 2021899E:037FAE08 GC sanity check failure
12-FEB-2002 18:47:30.52 2021899E:037FAE08 PANIC: aborting from module A
T:[AS.UTIL.SRC]GC.C;1 at line 339!
%SYSTEM-F-ABORT, abort
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .   rel PC           abs PC
 PWRK$LMSRV  GC     gcfree         0000000000000430 00000000002008A0
 PWRK$LMSRV  TRANS2  transcleanup  00000000000001A0 0000000000140390
 PWRK$LMSRV  TRANS2  smbtrans2     0000000000000764 0000000000140954
 .
 .
 .
```

Solution:

These problems are resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.5 Advanced Server Crashes in Routine transcopydata

Problem:

The PWRK$LMSRV process might crash with an access violation in the module TRANS2, in routine transcopydata. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
 address=0000000000000000, PC=FFFFFFFF808C027C, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine   . . .   rel PC           abs PC
 PWRK$LMSRV  TRANS2  transcopydata  0000000000000000 FFFFFFFF808C027C
 PWRK$LMSRV  TRANS2  transcopydata  0000000000000370 0000000000132300
 PWRK$LMSRV  TRANS2  init_trans     00000000000012A4 0000000000133234
 PWRK$LMSRV  TRANS2  smbtrans2      0000000000000870 0000000000132800
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.6 Advanced Server Crashes in Routine outparse

Problem:

The PWRK$LMSRV process might crash with an access violation in the module TRANSPARSE, in routine outparse. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=00000000001AD8DC, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image      module     routine   . . .  rel PC          abs PC
 PWRK$LMSRV  TRANSPARSE outparse   0000000000002CDC 00000000001AD8DC
 PWRK$LMSRV  PRQUEUEAPI ATTDosPrintQGetInfo
                                   0000000000002AD0 0000000000155EB0
 PWRK$LMSRV  TRANS  dotransapi     000000000000264C 00000000001317FC
 PWRK$LMSRV  TRANS  smbtrans       0000000000000E64 0000000000130014
 PWRK$LMSRV  SMBWORK  smbwork      000000000000179C 000000000010CF4C
 PWRK$CSSHR_V7  MTS  MTS$CONTEXT_SWITCH
                                   0000000000000104 00000000003DA074
 PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
 ?              ?
 PWRK$LMSRV  MTS$MAIN  main        00000000000000BC 0000000000081B7C
 PWRK$LMSRV  MTS$MAIN  __main      0000000000000058 0000000000081B18
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.7 Server Crashes in Module PWRK$LMMCP at Startup on SMP Systems With Greater than 16 CPUs

Problem:

On symmetric multiprocessing (SMP) systems with greater than 16 CPUs, the Advanced Server PWRK$LMMCP module crashes at startup.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.8 The Advanced Server Errantly Removes Data from Terminal Server User Profiles

Problem:

When a terminal server is participating in the domain with the Advanced Server (either PDC or BDC), the Advanced Server handles some of the terminal server user profile information incorrectly and removes fields that should be included in the profile for the terminal server user.

Some ADMINISTER commands change data that resides in the terminal server fields. For example, if the MODIFY USER command is used to change the password (/PASSWORD), the description (/DESCRIPTION=), or the user's account password properties (such as /FLAGS=NODISPWDEXPIRATION), the Advanced Server removes the information in the terminal server user profile path and terminal server home directory.

Solution:

These problems are resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.9 Advanced Server Crashes at Login in Routine SampMatchworkstation

Problem:

If you add a user account to the security account database, specifying a particular
workstation from which the user can log on to the domain (using the command
ADMINISTER ADD USER /WORKSTATION=, for example), when that user
attempts to log in using external authentication, the server crashes in module
USER, routine SampMatchworkstation. Error messages and a traceback similar
to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=000000000020798, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .  rel PC         abs PC
 PWRK$LMSRV  USER  SampMatchworkstation
                                      0000000000006588 0000000000200798
 PWRK$LMSRV  USER  SamIAccountRestrictions
                                      0000000000004570 00000000001FE780
 PWRK$LMSRV  MSVSAM  MsvpSamValidate
                                      0000000000001150 00000000001DDA20
 PWRK$LMSRV  MSVSAM  MsvSamValidate 00000000000000C0 00000000001DC990
 PWRK$LMSRV  SAMLOGON SampUserCheck 00000000000000CC 0000000000229A1C
 PWRK$LMSRV  SSIGNON_PROC  ssignon_validateuser
                                      000000000000100C 00000000001A530C
 PWRK$LMSRV  SSIGNON_PROC  process_acme_message
                                      00000000000016EC 00000000001A59EC
.
.
.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.10 Advanced Server Crashes in PLM Modules

Problem:

The server crashes in any of several PLM modules. Error messages and a
traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
 address=00000000388C, PC=0000000000430760, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .  rel PC         abs PC
PWRK$CSSHR_V7  PLM  PLM_passthru     0000000000002E30 0000000000430760
                                     FFFFFFFF80128790 FFFFFFFF80128790
                                     FFFFFFFF80001934 FFFFFFFF80001934
 PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
                                     0000000000001248 00000000003FB308
 PWRK$LMSRV  MTS$MAIN  main         00000000000000BC 0000000000091C4C
 PWRK$LMSRV  MTS$MAIN  __main       0000000000000058 0000000000091BE8
                                     FFFFFFFF802593D4 FFFFFFFF802593D4
.
.
.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.11 Server Hangs Then Crashes When COM for OpenVMS In Use

Problem:

When a user who is a member of 25 or more groups attempts to use COM for OpenVMS to connect to the Advanced Server, the server might hang for a time, and then several processes will crash with the following error message in the PWRK$LMSRV log file:

```
Error (AddMsgEncryptedString): MsgPtr size exceeded!
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.12 Advanced Server Crashes in Module SERVERAPI

Problem:

The Advanced Server might crash when a client sends a Server Message Block (SMB) with ASCII data that cannot be converted to the server's character set. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=000000000020798, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  . . .   rel PC        abs PC
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=
FFFFFFFF88C002E1, PC=FFFFFFFF8095C960, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  ...    rel PC         abs PC
                                     FFFFFFFF8095C960 FFFFFFFF8095C960
                                     FFFFFFFF80A56360 FFFFFFFF80A56360
 PWRK$LMSRV  SERVERAPI  ask_mcp     0000000000002164 0000000000169794
 PWRK$LMSRV  SERVERAPI  ATTNetServerEnum2
                                    0000000000002958 0000000000169F88
 PWRK$LMSRV  TRANS  dotransapi     00000000000026BC 0000000000133B3C
 PWRK$LMSRV  TRANS  smbtrans       0000000000000EAC 000000000013232C
 PWRK$LMSRV  SMBWORK  smbwork      0000000000001794 000000000010E084
 PWRK$CSSHR_V7  MTS  MTS$CONTEXT_SWITCH
                                    0000000000000104 0000000000419AA4
 PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
                                         ?                    ?
 PWRK$LMSRV  MTS$MAIN  main        00000000000000BC 0000000000081DEC
 PWRK$LMSRV  MTS$MAIN  __main      0000000000000058 0000000000081D88
                                    FFFFFFFF8955D3D4 FFFFFFFF8955D3D4
.
.
.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.13 Server Stops Responding to Requests

Problem:

An Advanced Server configured as a member server might fail to respond to client attempts to access a share or service. For example, although the client might be able to map to a share, attempts to open files in the share hang. In addition, ADMINISTER commands might fail with an error such as the following:

```
%PWRK-E-ERRGETSRV, error getting server information for
node-name
-LM-E-ERROR_BAD_NETPA, the network path cannot be located
```

The maximum session limit is not a factor in this problem: often the number of sessions established is well below the limit.

Restarting the server removes the problem temporarily.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.14 Member Server Crashes with an ACCVIO in Module SIDCACHE, Routine PutSidInCac

Problem:

In operations involving multiple trusts, the PWRK$LMSRV process of a member server might crash with an access violation in module SIDCACHE routine PutSidInCache. Error messages and a traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=000000000000
%TRACE-F-TRACEBACK, symbolic stack dump follows
 image     module     routine    ...     rel PC          abs PC
PWRK$LMSRV  SIDCACHE  PutSidInCache
                                      00000000000003D0 0000000000252C40
PWRK$LMSRV  LOOKUP  LsapDbLookupSidsInPrimaryDomain
                                      0000000000002D78 000000000024B5A8
PWRK$LMSRV  LOOKUP  PegSamrLookupSids
                                      00000000000003BC 0000000000248BEC
PWRK$LMSRV  LSARPC  LsarLookupSids  0000000000000B4C 00000000000E8E4C
PWRK$LMSRV  LSARPC_S  lsarpc_LsarLookupSids
                                      0000000000003928 00000000000DE068
PWRK$LMRPCSHR  CNSRV  rpc__ncacn_process_request
                                      0000000000001EF0 0000000000692810
PWRK$LMRPCSHR  CNSRV  rpc__ncacn_datawork
                                      0000000000002760 0000000000693080
PWRK$LMRPCSHR  RPCCALL  callwork    0000000000000500 0000000000687210
PWRK$CSSHR_V7  MTS  MTS$CONTEXT_SWITCH
                                      0000000000000104 0000000000481044
PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
                                                    ?                 ?
PWRK$LMSRV  MTS$MAIN  main        00000000000000D8 0000000000091E78
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.15 Server Crashes in Module ODS2DIRCACHE

Problem:

The Advanced Server might crash in module ODS2DIRCACHE. A log entry such as the following is recorded:

```
9-JAN-2002 04:26:15.32 6C80063E:02D3C410 PANIC: aborting
from module COMMON$BLD_ROOT:[COMMON.CS.SRC]ODS2DIRCACHE.C;1
at line 1100!
```

The dump file might contain information such as the following:

```
%SYSTEM-F-ABORT, abort
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image     module     routine   ...     rel PC          abs PC
PWRK$FSLIB_ODS2  ODS2$DIRCACHE  ODS2GetNextDirEntry
                                      0000000000001488 0000000000BA9DF8
 PWRK$FSLIB_ODS2  ODS2$FILE  ODS2Getdents1
                                      0000000000007214 0000000000B9F8E4
 PWRK$FSLIB_ODS2  ODS2$OPS  ODS2_getdents
                                      0000000000005FF0 0000000000B73FF0
 PWRK$CSSHR_V7  PFS$OPS  PFS_getdents
                                      0000000000007CB0 00000000004965F0
 PWRK$LMSRV  DIR  nextfile      0000000000002098 000000000018D6E8
 PWRK$LMSRV  DIR  dir_read      0000000000001270 000000000018C8C0
   .
   .
   .
 PWRK$CSSHR_V7  MTS  MTS$CONTEXT_SWITCH
                                      0000000000000104 00000000004812C4
 PWRK$CSSHR_V7  MTS  MTS$MAIN_SCHEDULER
                                            ?                   ?
 PWRK$LMSRV  MTS$MAIN  main      00000000000000D8 0000000000091F28
 PWRK$LMSRV  MTS$MAIN  __main      0000000000000070 0000000000091EC0
                                      FFFFFFFFA7F9D474 FFFFFFFFA7F9D474
9-JAN-2002 04:26:36.85 6C80063E:02D3C410 PLM_exit_handler: releasing
lock database resources...
9-JAN-2002 04:26:36.86 6C80063E:02D3C410      released 0 hash slots,
5 open modes, 0 range locks
9-JAN-2002 04:26:36.86 6C80063E:02D3C410      remaining lock database
resources in use:
9-JAN-2002 04:26:36.86 6C80063E:02D3C410      0 streams, 0 open modes,
0 range locks
  SYSTEM      job terminated at  9-JAN-2002 04:26:38.31
 .
 .
 .
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.16 A "Big Endian" Server in Same Domain Might Cause the Advanced Server for OpenVMS to Crash

Problem:

When a "Big Endian" server joins the domain of the Advanced Server for OpenVMS as a backup domain controller or attempts to establish a trust with the Advanced Server for OpenVMS domain, replication or establishment of the trust fail. The Advanced Server for OpenVMS might crash with error messages and a traceback similar to the following recorded in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000006536000, PC=0000000000572758, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
  image    module    routine  ...    rel PC        abs PC
 PWRK$LMRPCSHR  NDRINT  short_array_from_ndr
                                 0000000000000238 0000000000572758
 PWRK$LMRPCSHR  NDRDATA  data_from_ndr
                                 0000000000000EC0 00000000005703D0
 PWRK$LMSRV  LOGON_S  logon_NetrServerReqChallenge
                                 00000000000017A8 00000000000F1818
 PWRK$LMRPCSHR  RPCCALL  rpc__call_put
                                 0000000000000238 0000000000574948
 PWRK$LMRPCSHR  CNSRV  rpc__ncacn_process_request
                                 0000000000001FF4 0000000000580264
 PWRK$LMRPCSHR  CNSRV  rpc__ncacn_datawork
                                 00000000000028CC 0000000000580B3C
 PWRK$LMRPCSHR  RPCCALL  callwork  00000000000004FC 0000000000574C0C
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.17 Server Crashes in Module LIB$CONVFPATH, Routine MetaToRMSPath

Problem:

The server might crash in module LIB$CONVFPATH, routine MetaToRMSPath,
leaving a traceback similar to the following in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000180, PC=FFFFFFFF80654E84, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module  routine      line    rel PC        abs PC
PWRK$CSSHR_V7  LIB$CONVFPATH  MetaToRMSPath
                                 15851 0000000000001D90 000000000040C9C0
PWRK$CSSHR_V7  LIB$CONVFPATH  LIB_ConvertFilePath
                                 14607 0000000000000270 000000000040AEA0
PWRK$LMSRV  QINFO  t2_qfileinfo 66785 0000000000000510 0000000000138B20
PWRK$LMSRV  TRANS2  dotransapi  53573 00000000000014C8 00000000001357D8
PWRK$LMSRV  TRANS2  smbtrans2   53209 00000000000006D8 00000000001349E8
PWRK$LMSRV  SMBWORK  smbwork     71950 0000000000001794 000000000010E084
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.3.18 Incorrect Free and Total Disk Space Returned to Clients

Problem:

The values for the free and total disk space seen by a client when viewing the
properties of the shared disk might be incorrect. This occurs when the OpenVMS
disk device cluster size is greater than 127.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.4 File/Printer Share Problems

This section describes file access and printing problems corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.4.1 Attempts to Share an ISO-9660 CD-ROM Fail

Problem:

Attempts to share an ISO-9660 CD-ROM might fail with an error message as in the following example:

```
LANDOFOZ\\TINMAN> ADD SHARE/DIRECTORY RAINBOW  $15$DKA500:[ALPHA]
%PWRK-E-ERRADDSHARE, error adding share "RAINBOW"
-LM-E-NERR_UNKNOWNDEV, the device or directory does not exist
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.4.2 Shares on an NFS Disk Are Inaccessible

Problem:

Attempts to access a share on an NFS-mounted disk fail. An error message might indicate the folder or file has been moved or removed. The ADMIN/ANALYZE command reveals the following error:

```
Event Time:   6-FEB-2002 05:33:23.12       Node:  GRIN
Process Id:   00000350
Event:        File system error
Event Source: ODS2 File System Library
Event Class:  Error

     Status:     %SYSTEM-F-BADATTRIB, bad attribute control list
     Function:   ODS2_STREAM_open
     Operation:  Open File
     Username:   SYSTEM
     UIC:        [001,004]
     Path:       DNFS1:\TEST\
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. Note that alias file names are not supported on NFS shares.

6.4.3 Unable to View or Change Properties of a Windows-Managed Printer

Problem:

The following problems have been observed involving Windows NT style printer management:

- The Spool folder field under the Advanced tab in a printer's printer server properties window contains inappropriate data and the field cannot be changed. (Server properties are accessed under the file menu for the printers folder.) An error message such as the following might be seen:

  ```
  "unable to save server settings"
  ```

- Attempts to display a printer's properties fail, causing the following error message to be displayed:

  ```
  It is not possible to view properties for this printer
  ```

- Attempts to display a printer's printer server properties fail, causing the following error message to be displayed:

```
Unable to save server settings
```

Solution:

These problems are resolved in Advanced Server V7.3-ECO2 for OpenVMS. In earlier versions of the Advanced Server for OpenVMS, the following key was not defined in the OpenVMS Registry, and this caused some of the problems mentioned in this note. With Version 7.3-ECO2, this key is defined.

```
HKEY_LOCAL_MACHINE\SYSTEM\CURRENTCONTROLSET\CONTROL\PRINT\PROVIDERS
```

6.5 ADMINISTER Command Problems

This section describes ADMINISTER command problems corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.5.1 Problems Modifying Permissions on Member Server Objects

Problem:

Users might be unable to change permissions on member server objects such as shares. For example, an attempt to use the MODIFY SHARE command to remove permissions for Server Operators appears to succeed, but the permissions remain unchanged. In addition, attempts to change permissions for a group adds new permissions to the list instead of replacing the old permissions.

Solution:

These problems are resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.5.2 ADMINISTER Utility Crashes with ACCVIO When SHOW EVENT/TYPE=SECURITY/FULL Is Attempted

Problem:

When issuing the ADMINISTER SHOW EVENT/TYPE=SECURITY/FULL, the ADMINISTER utility might crash with an access violation in the module xvsprintf in routine image PWRK$MGTLIBSHR.EXE.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.6 Windows 2000 Related Problems

This section describes problems related to the interaction with Windows 2000, corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.6.1 The xcopy/d Command Does Not Work Properly with the Advanced Server

Problem:

When using the xcopy /d command from a Windows 2000 client, the command might always attempt to copy certain files even if they have already been copied and the source files have not been modified.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. This problem arose because of changes made in Windows 2000.

6.6.2 SAM Database Corrupted After Server Joins Windows 2000 Domain

Problem:

After joining a Windows 2000 domain as a backup domain controller and the SAM (security accounts management) domain databases are synchronized, the server's SAM database could get corrupted. The following is seen when using the SAMCHECK command (an unsupported command):

```
$ SAMCHECK -SV
    A Account object had an invalid LUID.
    An invalid hash entry was found with ID 544.
    An invalid hash entry was found with ID 544.
    The Administrators account object is missing.

    1 objects had invalid LUID's.
    1 built-in objects were missing.
    2 hash table entries were invalid.
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.7 Transport Problems

This section describes problems related to the use of transport protocols with the Advanced Server, corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.7.1 OpenVMS System Crashes in TCPIP$BGDRIVER, While in Process PWRK$LMBROWSER

Problem:

The system might crash in TCPIP$BGDRIVER (TCP/IP inconsistent state bugcheck — double deallocation bugcheck), while in process PWRK$LMBROWSER, with the following bugcheck:

```
Bugcheck Type:     INCONSTATE, Inconsistent I/O data base
CPU Type:          Compaq AlphaServer ES40
VMS Version:       V7.2-2
Current Process:   PWRK$LMBROWSER
Current Image:     DSA0:[SYS1.SYSCOMMON.][SYSEXE]PWRK$LMBROWSER.EXE;3
Failing PC:        FFFFFFFF.C0BC9538    PANIC_C+00110
Failing PS:        1C000000.00000800
Module:            TCPIP$BGDRIVER  (Link Date/Time:
21-DEC-2001 13:51:51.80)
Offset:            00025538
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.7.2 OpenVMS System Hangs After Non-Paged Pool Is Used Up

Problem:

The system non-paged pool gets used up by packets generated by the Advanced Server, causing the OpenVMS system to hang.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.7.3 Clients Cannot Access Advanced Server on Multihomed TCP/IP Host: Wrong IP Address Is Registered in the WINS Database

Problem:

On TCP/IP hosts with multiple network interfaces, the Advanced Server might start up using an IP address of a different network interface than that which was defined for the PWRK$KNBDAEMON_DEVICE logical name. (The PWRK$KNBDAEMON_*nodename*.LOG file indicates that the server is using an IP address different from the intended one.) As a result, the server uses the wrong IP address to register all names (such as the node name, domain name, and so forth) in the WINS database, and clients in other subnets attempt to access the server using that wrong IP address.

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. To ensure that the correct IP address is used on multihomed hosts, you must define the IP address in the logical PWRK$KNBDAEMON_IPADDR. You must define both the PWRK$KNBDAEMON_DEVICE logical (associating the network interface to be used) and the PWRK$KNBDAEMON_IPADDR logical (associating the correct IP address of that interface). For example:

```
$ DEFINE/SYSTEM/EXEC PWRK$KNBDAEMON_DEVICE  FWA0:
$ DEFINE/SYSTEM/EXEC PWRK$KNBDAEMON_IPADDR "16.20.124.155"
```

If only one of the logical names is defined on a multihomed system, then PWRK$KNBDAEMON will fail to start and an appropriate error message is recorded in the PWRK$KNBDAEMON_*nodename*.LOG file. You must ensure that the device name associated with logical PWRK$KNBDAEMON_DEVICE is indeed bound to the IP address associated with the logical PWRK$KNBDAEMON_ IPADDR.

For more information about these logicals and multihomed hosts, see Section 2.5, New Features Provided by Advanced Server V7.3A for OpenVMS.

6.8 Event Logging Problems

This section describes problems related to event logging functions of the server, corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.8.1 Security Events Are Logged Unnecessarily for Printer Operations

Problem:

With Windows NT-style printing enabled, multiple security event messages such as in the example provided below are logged whenever printers shared on the server are being accessed, although the events are not being audited for those printers.

```
1/5/2002,2:16:22 PM,Security,Success Audit,(3),560,ECNET\McCR,EGN01,
"Object Open:
      Object Server:  Spooler
      Object Type:    Printer
      Object Name:    \print\EGACT04
      New Handle ID:  -
      Operation ID:
      Process ID:     37100088
      Primary User Name:      SYSTEM
      Primary Domain: NT AUTHORITY
      Primary Logon ID:       (0x0, 0x3e7)
      Client User Name:       MCCR
      Client Domain:  ECNET
      Client Logon ID:        (0x0, 0x18d1)
      Accesses                Print

      Privileges              -
"
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.9 Cluster-Related Problems with Advanced Servers

This section describes problems relating to servers participating in OpenVMS Clusters. These problems have been corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.9.1 Lock Release Failure

Problem:

In an OpenVMS Cluster, the server might fail to release a lock, and logs an error message such as the following in the PWRK$LMSRV log file:

```
ReleaseLockThread - Failed to release lock
```

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS.

6.10 Browser Problems

This section describes problems with the Browser service corrected in Advanced Server V7.3-ECO2 for OpenVMS.

6.10.1 Browser Service Hangs in PENDING State

Problem:

In an OpenVMS Cluster, when the Advanced Server is the primary domain controller, the status of the Browser Service on one or more nodes might stay in PENDING. (It starts on one node but stays in PENDING on the others.) This happens when two or more nodes in the cluster start the Advanced Server at nearly the same time (within about a minute of each other).

Solution:

This problem is resolved in Advanced Server V7.3-ECO2 for OpenVMS. Although the Browser starts correctly on all the cluster nodes, the ADMINISTER SHOW COMPUTER command might still take some time to display all the servers. This is normal and intended behaviour.

7

Problems Corrected in Advanced Server V7.3A for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3A for OpenVMS. These software changes will also be included in future ECOs. The problems are described in the sections indicated in the following table:

Problem Type	Section Number
Installation and Configuration Problems	7.1
Server Problems	7.2
File/Printer Share Problems	7.3
Remote Management Problems	7.4
Transport Problems	7.5
Event Logging Problems	7.6
Browser Problems	7.7

7.1 Installation and Configuration Problems

This section describes installation problems corrected in Advanced Server V7.3A for OpenVMS.

7.1.1 Cannot Join a Domain if the PDC (Windows NT or Windows 2000) Has Restricted Anonymous Access

Problem:

The Advanced Server could not be configured as a BDC or a member server if the PDC (Windows NT or Windows 2000) restricts anonymous access. Anonymous access is restricted if the registry on the PDC has the following value:

```
Key: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\LSA
Value Name: RestrictAnonymous
Data Type: REG_DWORD
Value: 1
```

In this case, when you attempted to configure the Advanced Server to join the domain, you would see this error message:

```
PWRK-F-COMERR, error communicating with the primary domain controller
Error getting domain name
```

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.1.2 Cluster Consistency Checking Erroneously Reports Inconsistencies

Problem:

When starting up, the Advanced Server V7.3-ECO1 and V7.3-ECO2 products enforce certain consistency requirements in an OpenVMS Cluster. If the startup software detects these inconsistencies, it reports them and then aborts. By defining the logical PWRK$IGNORE_INCONSISTENCY, a system manager can choose to ignore the detected inconsistencies, allowing the server to start successfully.

However, in some cases the software might report inconsistencies that do not actually exist.

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS. Although the cluster consistency requirements remain the same (see Section 3.18.1, Installation and Configuration Considerations for Clusters, the consistency-checking code has been removed. Customers who have defined the PWRK$IGNORE_INCONSISTENCY logical can now undefine it.

7.2 Server Problems

This section describes the file server problems corrected in Advanced Server V7.3A for OpenVMS.

7.2.1 Using OpenVMS Security Mode, READALL Privilege Is Ignored

Problem:

When the PATHWORKS server is configured to use the Advanced Server and OpenVMS security model, a server user who has the OpenVMS READALL privilege should be able to access a server file, even if the the user is not the owner of the file and is not granted access to the file. However, the server ignores the READALL privilege and prevents this user from accessing the file.

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.2.2 PWRK$LMSRV Log File Records "ODS2ReleaseFIDCache: no FCE!" Messages

Problem:

Occasionally, the PWRK$LMSRV log file might include several instances of the following message:

```
ODS2ReleaseFIDCache: no FCE!
```

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.2.2.1 ODS-2 Encoded File Names Must Be Converted Before Configuring a New Server Language

Problem:

If your disk volume includes ODS-2 file names with escape-encoded characters (characters that are in the format _ _XX), and you configure a new server language (that is, other than the default (English (USA)), the escape-encoded characters will not be interpreted as expected.

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS. Note that before configuring a language other than the default (English (USA)), you must first convert the volume to ODS-5, and then convert all the file names, using the PWCONVERT command (which invokes the file name conversion utility). Refer to the *HP Advanced Server for OpenVMS Server Installation and Configuration Guide* for more instructions.

7.2.3 PWRK$LMSRV Process Might Crash in Module PTRMAP, Routine IdToSlotPtr

Problem:

The server might crash (rarely), leaving a traceback similar to the following in the PWRK$LMSRV log file:

```
image        module    routine     line     rel PC          abs PC
PWRK$LMSRV   PTRMAP    IdToSlotPtr  56560 00000000000000D4 00000000001B...
PWRK$LMSRV   PTRMAP    getptr       56801 00000000000007EC 00000000001B...
PWRK$LMSRV   SMBWORK   smbwork      76942 0000000000001390 000000000011...
```

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.3 File/Printer Share Problems

This section describes file access and printing problems corrected in Advanced Server V7.3A for OpenVMS.

7.3.1 Server Operations on Files Greater Than 2 GBs Fail

Problem:

With earlier versions of the Advanced Server for OpenVMS, attempts to create, copy, read, or write a file that is greater than 2 GBs in size would fail.

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS. The server now supports files that are larger than 2 GBs in size. The maximum size supported is 4 GBs.

7.4 Remote Management Problems

This section describes problems related to remote management, corrected in Advanced Server V7.3A for OpenVMS.

7.4.1 "Add Workstations to Domain" Right Does Not Appear in List of Rights Available to Windows NT Clients Using User Manager

Problem:

When a Windows NT client using User Manager selects Policies → User Rights, the list of rights fails to include the "Add Workstations to Domain" right. (This occurs only when the Advanced Server is a primary domain controller.)

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.5 Transport Problems

This section describes problems related to the use of transport protocols with the Advanced Server, corrected in Advanced Server V7.3A for OpenVMS.

7.5.1 A 15-Character Alias Name Causes NETLOGON Not to Start

Problem:

When a user specifies a cluster alias name 15 characters in length, NETLOGON does not start. No error message is recorded in the event log. Attempts to start NETLOGON manually with the ADMINISTER START SERVICE NETLOGON command also fail (the service startup times out).

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.6 Event Logging Problems

This section describes problems related to event logging functions of the server, corrected in Advanced Server V7.3A for OpenVMS.

7.6.1 Event in Browser Function Not Reported Properly

Problem:

When the Browser stops, the ADMINISTER SHOW EVENTS command does not display the event. The Windows NT Event Viewer reports the event but does not identify the Browser. Instead, it reports the node name. For example:

```
 6108   The BAGELS service has stopped.
```

BAGELS is the node name. Instead, the event source (Browser) should be identified.

The event source improperly identified by the 6108 event message should be the Browser.

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.6.2 Certain Event Code Descriptions Do Not Appear in ADMINISTER SHOW EVENTS Display

Problem:

After the Advanced Server Browser MORELOG parameter is set to YES, descriptions are not provided for several event types in the ADMINISTER SHOW EVENTS display. Instead, the following message is displayed:

```
 I xxxx – The description for Event ID (xxxx)
 in Source (BROWSER) could not be found
```

The message displays the Event ID number for the event (*xxxx*).

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

7.7 Browser Problems

This section describes problems with the Browser service corrected in Advanced Server V7.3A for OpenVMS.

7.7.1 Browser Problems When LAN Broadcasts Domain or Server Names That Contain Certain Non-ASCII Characters

Problem:

If the Advanced Server for OpenVMS is the master browser of a domain and receives an announcement of a domain or a server whose name contains certain non-ASCII characters, the browser cannot supply information about servers or domains on the LAN. In addition, the Browser service of any backup browser in the domain will not start (it will hang in the "Start Pending" state). The event log on the backup browser will contain many failure messages stating that it could not retrieve the list of domains from the master browser, and one message stating that the failure has happened too many times. The following is an example of the error messages logged:

```
W 03/06/01 10:11:00 AM BROWSER   None        8022   N/A   SNOW
The browser was unable to retrieve a list of domains from the browser
master
\\NEASTR on the network \Device\NetBT_DC21X41.The data is the error
code.
Data:
    0000: 59 04 00 00 00 00 00 00    Y.......

E 03/06/01 10:11:01 AM BROWSER   None        8032   N/A   SNOW
The browser service has failed to retrieve the backup list too
many times on transport
\Device\NetBT_DC21X41.The backup browser is stopping.
Data:
    0000: 59 04 00 00 00 00 00 00    Y.......
```

Solution:

This problem is resolved in Advanced Server V7.3A for OpenVMS.

8

Problems Corrected in Advanced Server V7.3A-ECO1 for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3A-ECO1 for OpenVMS. These software changes will also be included in future ECOs.

8.1 Advanced Server Problems with File Access Permissions

Problem:

1. Permissions are not inherited properly on a new directory created in a share that existed prior to installation of V7.3A. The Advanced Server conforms to the Windows NT Security model, including the inheritance of file and directory security from directories to the contents of directories. It is the Windows NT security inheritance that is not working properly. For more information on Windows NT and Windows 2000 security descriptors and inheritance, see Chapter 12 (Access Control) in Part 2 of the *Microsoft Windows 2000 Server Distributed Systems Guide*, at:

http://www.microsoft.com/technet/prodtechnol/windows2000serv
/reskit/distsys/dsintro.asp

2. The Creator Owner ACE might be missing from directories created after installing V7.3A.

3. %86 ACEs are not being created on some files and directories. The Windows NT security descriptor is stored in an OpenVMS ACL, specifically in the %86 ACE. In some cases, the %86 ACE is not being applied when it should be. The unsupported registry parameter ForceFileAcl affects the creation of %86 ACEs in files. In the Advanced Server V7.3A, this parameter was inadvertently set to a default value of 0 instead of the expected value of 1. With V7.3A-ECO1, ForceFileAcl is set to 1 (internally to the Advanced Server) and the registry value is ignored.

These three problems may show up in any of a variety of unexpected ways regarding user access to file and directory resources. Some problems that have been reported include users being able to create files but not being able to modify or rename them, and users being unable to access a file that they expect to be accessible. For instance, when you display the permissions for the problem directories, as in the following example (using the ADMINISTRATOR SHOW FILES/PERMISSIONS command), the permissions might include "Special Access" and "(Not Specified)" instead of the expected permissions (such as "Change (RWXD) (RWXD)").

```
ACCNTS     <DIR>
  Permissions:              Access
    Administrators          Special Access (All) (Not Specified)
    Everyone                Special Access (RWXD) (Not Specified)
    DWilson                 Special Access (All) (Not Specified)
    Server Operators        Special Access (RWXD) (Not Specified)
    SYSTEM                  Special Access (All) (Not Specified)
```

Note also that the CREATOR OWNER information is missing from this display. The following example shows the permissions that might be expected for the directory ACCNTS (and here the CREATOR OWNER information is present, as it should be):

```
ACCNTS     <DIR>
  Permissions:              Access
    Administrators          Full Control (All) (All)
    CREATOR OWNER           Full Control (All) (All)
    Everyone                Change (RWXD) (RWXD)
    DWilson                 Special Access (All)* (Not Specified)
    Server Operators        Change (RWXD) (RWXD)
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

8.2 Wrong Time Set on Client After NET TIME Command Is Used to Synchronize with the Server

Problem:

When the NET TIME command is issued from a PC client to synchronize its clock with the Advanced Server (V7.3-ECO2 or later), as in the following example where the server is named TINMAN, the time set on the client might be incorrect. The time set on the client will be off by the GMT difference (in hours) reported by the server.

```
C:\> NET TIME \\TINMAN /SET
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

8.3 File Remains Locked, Access Violation Errors Reported

Problem:

In rare circumstances, usually seen in environments that include a large number of clients, an attempt to open a file in a share on an OpenVMS Cluster can fail with a sharing violation. This continues to occur after repeated attempts to open the file.

The problem is seen only on one server node in the cluster. The file can be opened from the other server node(s) in the cluster. The only way to solve the problem is to restart the server on the node that has the problem.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

8.4 Copying New Files with Certain Names to a Share Might Fail

Problem:

Copying new files to an Advanced Server share might fail, depending on the names of the files. The following are examples of file names that cause the failure (the file extension is irrelevant):

```
00000001.*
00000010.*
00000011.*
00000100.*
00000101.*
00000110.*
00000111.*
```

Attempts to copy such files result in an error message similar to the following:

```
Error Copying File
Cannot copy filename: Cannot find the specified file.
Make sure you specify the correct path and filename.
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

8.5 Server Might Crash in Routine RealGetSidOfUnixOwner

Problem:

The server might crash in routine NtaclGetSidOfUnixOwner of module NTACLMAP, leaving a traceback similar to the following in the PWRK$LMSRV log file:

```
image        module      routine     line    rel PC        abs PC
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=00000000001AC7E0, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
 image        module      routine     line    rel PC        abs PC
 PWRK$LMSRV  ACLMAP  RealGetSidOfUnixOwner
                                 120640 0000000000000250 0000000000...
 PWRK$LMAPISHR  NTACLMAP  NtaclGetSidOfUnixOwner
                                 89523 00000000000001FC 00000000005...
 PWRK$LMAPISHR  NTACL  get_custom_sd
                                 6385 00000000000000B0 00000000005C...
 PWRK$LMAPISHR  NTACL  NtaclFetchWorkingSD
                                 98211 00000000000016D8 00000000005...
    .
    .
    .
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

8.6 PWRK$LMMCP Hangs with One or More Server Cluster Members in the LEF State

Problem:

On an OpenVMS Cluster of four or more cluster members, an attempt to start the Advanced Server on the 4th and remaining cluster members might result in the PWRK$LMMCP process on each of these servers hanging in the LEF (local event flag) wait state. Symptoms include clients being unable to connect to the servers and ADMINISTER commands hanging or timing out.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO1 for OpenVMS.

9

Problems Corrected in Advanced Server V7.3A-ECO2 for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3A-ECO2 for OpenVMS. These software changes will also be included in future ECOs.

9.1 Execution of ADMINISTER SHOW Commands Causes Server to Crash with Access Violation in PWRK$LMRPCSHR

Problem:

In rare circumstances when using ADMINISTER SHOW commands, the server might crash with an access violation in PWRK$LMRPCSHR. Error messages and a traceback similar to the following would be logged:

```
SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=
0000000000000001, PC=FFFFFFFF80D8A8E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module   routine     line      rel PC          abs PC
                                  0  0000000000000000 FFFFFFFF80D8A8E8
PWRK$LMRPCSHR  DYNAMIC  add_file_to_list
                                  30902 00000000000002D8 0000000000427048
PWRK$LMRPCSHR  DYNAMIC  library_load
                                  30939 00000000000004C0 0000000000427230
PWRK$LMRPCSHR  RPCXPORT rpc__xport_info
                                  27506 00000000000000BC 0000000000437B8C
PWRK$LMRPCSHR  RPCBIND  rpc__binding_alloc
                                  30784 0000000000000088 0000000000433B08
   .
   .
   .
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.2 PWRK$LMSRV Crash While Enumerating Shares

Problem:

A client attempting to enumerate the shares on a server causes a PWRK$LMSRV crash in NetrShareEnum on address 0x00000004

```
%SYSTEM-F-ACCVIO, access violation, reason mask=04,
virtual address=0000000000000004, PC=00000000000BA448, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image       module    routine      line      rel PC          abs PC
PWRK$LMSRV  ENUMS     NetrShareEnum 81872 0000000000000D48 00000000000BA448
PWRK$LMSRV  SRVSVC_S  srvsvc_NetrShareEnum
                                    22687 0000000000004418 00000000009C398
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.3 PWRK$KNBDAEMON and PWRK$NBDAEMON Log Files Cannot be Viewed While Advanced Server is Running

Problem:

When attempting to troubleshoot TCP/IP connectivity problems, it is impossible to get any useful information from the PWRK$LOGS:PWRK$KNBDAEMON_ nodename.LOG file. You cannot even enter the $TYPE or $EDIT command. The file is locked by the PWRK$KNBDAEMON process, and its buffers never seem to get flushed until the file is closed when the process exits. Thus, you will have to stop Advanced Server to view the files. This file is the ONLY source for errors when the server has run out of (TCP/IP or streams) sessions. However, it is nearly impossible to tell that is truly the issue while the server is running.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS. It is now possible to view the log files for KNBDAEMON and NBDAEMON process, using the $TYPE or $EDIT command. You do not have to shut down Advanced Server to view PWRK$KNBDAEMON and PWRK$NBDAEMON log files.

9.4 Server Announcements to Downlevel Servers Not Qualified

Problem:

In previous versions of the Advanced Server, the Advanced Server software sent a server announcement to the <domain> 00 name, which is the name on which Microsoft LAN Manager servers receive server announcements. The Advanced Server software was supposed to send this announcement only if the registry value lmannounce located in the key HKEY_LOCAL_ MACHINE\SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters was set to 1 but Advanced Server was ignoring this value.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS. Advanced Server now sends the server announcements only if lmannounce is 1. Lmannounce is 0 by default.

9.5 Cannot Create a Share to an ISO-9660 CD-ROM Device

Problem:

When the Server is configured for a language that does not map to the server character set ISO 8859-1, an ISO 9660 CDROM drive cannot be shared nor accessed. The following error is returned if you attempt to create a share to a mounted ISO 9660 CDROM disk.

```
KSGILE.DOM\\KSGILE> add share cdrom nt40srv_en$:[000000]

%PWRK-E-ERRADDSHARE, error adding share "CDROM"
-LM-E-NERR_UNKNOWNDEV, the device or directory does not exist
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.6 Server Might Crash in Routine LsarLookupNames

Problem:

The server might crash with an access violation (ACCVIO) in module LSARPC, routine LsarLookupNames. A trace back similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=00000000000E8CE8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module   routine      line     rel PC          abs PC
PWRK$LMSRV     LSARPC   LsarLookupNames
                                      88655 0000000000000938 00000000000E8CE8
PWRK$LMSRV     LSARPC_S lsarpc_LsarLookupNames
                                      28720 00000000000033A4 00000000000DDB94
PWRK$LMRPCSHR RPCCALL   rpc__call_put
                                      28450 0000000000000240 0000000000686F60
PWRK$LMRPCSHR CNSRV     rpc__ncacn_process_request
                                      33181 0000000000001F00 0000000000692830
PWRK$LMRPCSHR CNSRV     rpc__ncacn_datawork
                                      33504 0000000000002770 00000000006930A0
PWRK$LMRPCSHR RPCCALL   callwork     28523 0000000000000500 0000000000687220
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.7 The ADMINISTER Command-line Interface Cannot be Used to Manage the Member Server

Problem:

If the current server being managed by ADMINISTER Command (either a local or remote domain/server) that contain a domain name and server name that cannot be displayed with the maximum prompt length of 32 characters. The ADMINISTER Command utility continuously displays the following error:

```
Error %CLI-E-STRTOOLNG, string argument is too long - shorten
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS. The ADMINISTER Command utility will now truncate the domain name with "..." when required.

9.8 "Cannot Convert Unicode to the Target Server Character Set" Messages in Common Event Log

Problem:

Administer/Analyze (which displays the events in the Advanced Server common event log) might report a large number of the following events:

```
Event Time : 27-MAY-2002 16:24:32.30      Node:  MYNODE
Process Id : 210036C6
Event : LAN Manager server error
Event Source: LAN Manager Server
Event Class : Error

Text: Cannot convert Unicode to the target Server character set.
```

These messages are posted when a client sends data (usually a file path) to the server that cannot be converted to the server's currently configured language. These messages fill up the event log and are not required to manage the currently running server. These events are no longer posted.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.9 PWCONVERT Cannot Convert SPACE (_ _20) Correctly

Problem:

After installing Version 7.3A of the Advanced Server, attempts to use PWCONVERT to convert an ODS-2 file name with an escaped space ('_ _20') with PWCONVERT into an ODS-5 file name will result in a '^^_' character sequence. This should have been '^_' , which represents a space on ODS-5.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.10 PWRK$RENAME.EXE Image was Not Included in the Distribution Kit

Problem:

Advanced Server Version 7.3A cannot open the shares and files created by Advanced Server Version 7.2 for OpenVMS.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.11 Server Crashes in Routine PFS_releaseuser During ULOGOFF

Problem:

Under rare circumstances the server may crash with the following footprint:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=FFFFFFFFABCDABC9, PC=FFFFFFFF80830114, PS=00000018
%TRACE-F-TRACEBACK, symbolic stack dump follows
image         module   routine    line      rel PC          abs PC
      .
      .
PWRK$CSSHR_V7 PFS$LIB  PFSReleaseUser
                                   30162  0000000000001B24 00000000004A76E4
PWRK$CSSHR_V7 PFS$OPS  PFS_freeuser
                                   28944  000000000000B4B8 000000000049A198
PWRK$LMSRV    SESSION  user_sess_cleanup
                                   65727  0000000000001878 0000000000121E48
PWRK$LMSRV    SESSION  Invalidate  65668  0000000000001758 0000000000121D28
PWRK$LMSRV    ULOGOFF  smbulogoff  49217  000000000000010C 0000000000141CCC
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.12 Access to Data Denied

Problem:

Lotus Notes on a Windows 2000 client would receive the error message "Access to data denied" when the data files are located on the Advanced Server.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.13 System Crashes in PWRK$STREAMSSHR

Problem:

In rare circumstances, OpenVMS may bugcheck with an INVEXCPTN at PWRK$STREAMSSHR_V7+11984, with PWRK$LMSRV being the current process.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.14 Server Crashes in Routine PutSidInCache

Problem:

The server might crash with an access violation (ACCVIO) in module SIDCACHE, routine PutSidInCache. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=00000000002544C0, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module   routine    line     rel PC          abs PC
PWRK$LMSRV   SIDCACHE PutSidInCache
                                  101618 0000000000000410 00000000002544C0
PWRK$LMSRV   LOOKUP   LsapDbLookupSidsInPrimaryDomain
                                  111879 0000000000002D78 000000000024CCF8
PWRK$LMSRV   LOOKUP   PegSamrLookupSids
                                  108196 00000000000003BC 000000000024A33C
PWRK$LMSRV   LSARPC   LsarLookupSids
                                  88757  0000000000000B4C 00000000000E8EFC
<rpc calls...>
```

9.15 System Crash Caused by PCIDRIVER

Problem:

Sometimes OpenVMS crashes with a footprint of UNXSIGNAL crash at NSA$DEREFERENCE_RIGHTS_CHAIN+14. This problem was caused by the PCIDRIVER.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.16 The Server Fails to Start On a System with 32GB of RAM

Problem:

The configuration manager's NPAGEDYN calculation, performed during server startup or by ADMIN/CONFIG, can fail on extremely large memory systems.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.17 PWRK$LMSRV Process Crashes If the Server Uses a User Name Exceeding 20 Characters in Length

Problem:

If a client PC attempts to set up a session with the server using a user name that is greater than 20 characters the PWRK$LMSRV process could crash with the following footprint:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000000A7
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module     routine        line     rel PC              abs PC
PWRK$LMSRV     SMBWORK    smbwork        90291 00000000000018F4 00000000000FA004
PWRK$CSSHR_V7  MTS        MTS$CONTEXT_SWITCH
                                          6673 0000000000000104 000000000038B694
PWRK$CSSHR_V7  MTS        MTS$MAIN_SCHEDULER                  ?                  ?
PWRK$LMSRV     MTS$MAIN   main            5678 00000000000000D8 0000000000091A28
PWRK$LMSRV     MTS$MAIN   __main             0 0000000000000070 00000000000919C0
                                             0 FFFFFFFF802613F4 FFFFFFFF802613F4
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.18 Advanced Server Crashes with ACCVIO in Routine ssignon_oneway

Problem:

The Advanced Server might crash due to an ACCVIO at routine ssignon_oneway. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000000000
02F3, PC=FFFFFFFF81030114, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module       rout        line        rel PC            abs PC
                                         0    FFFFFFFF81030114  FFFFFFFF81030114
                                         0    FFFFFFFF811D72F4  FFFFFFFF811D72F4
PWRK$LMAPISHR MALDEBUG    lmfree  65126    0000000000000408  000000000053C1D8
PWRK$LMSRV    SSIGNON_PROC ssignon_oneway
                                    142475 000000000000015C  00000000001982CC
PWRK$LMSRV    SSIGNON_PROC ssignon_validateuserv2
                                    142942 0000000000000BA8  0000000000198D18
PWRK$LMSRV    SSIGNON_PROC ssignon_processmessage
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.19 Pathworks Crashes in Routine get_latest_logoff

Problem:

The Advanced Server Version 7.3A PWRK$LMSRV process crashes with the following footprint, if "Force user logoff after logon hours expire" is enabled in the account policy.

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000005057
2ECF, PC=000000000016F108, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module    routine     line    rel PC            abs PC
PWRK$LMSRV    FORCE    get_latest_logoff
                                 120938 0000000000000978 000000000016F108
PWRK$LMSRV    FORCE    force_logoff
                                 120721 0000000000000318 000000000016EAA8
PWRK$LMAPISHR CALLOUT  callout_task
                                  64907 00000000000003E8 000000000052B638
PWRK$CSSHR_V7 MTS      MTS$CONTEXT_SWITCH
                                   6673 0000000000000104 000000000038B694
PWRK$CSSHR_V7 MTS      MTS$MAIN_SC                      ?                ?
PWRK$LMSRV    MTS$MAIN main       5678 00000000000000D8 0000000000091A28
PWRK$LMSRV    MTS$MAIN __main        0 0000000000000070 00000000000919C0
                                      0 FFFFFFFF8027959C FFFFFFFF8027959C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.20 Unnecessary Event Logging from ODS2_lookup

Problem:

This problem is specific to Version 7.3A only. Listing the contents of a directory in an Advanced Server share by specifying the directory's alias file name causes several meaningless entries to be created in the server's common event log.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.21 Unable to Open Event Log on Modern NT Systems

Problem:

Attempts to read or clear the event log on modern NT systems result in an error message: -LM-E-RPC_X_BAD_STUB_, The stub received bad data" (Windows 2000), or -LM-E-ERROR_INVALID_PARAMETER

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.22 Unable to Add PATHWORKS V5.0F ECO2 as a Member Server (or Backup Domain Controller) to Advanced Server V7.03A ECO1 Primary Domain Controller

Problem:

When PATHWORKS V5.0F ECO2 was configured as a member server to Advanced Server V7.03A ECO1, PWRK$LMDMN of PATHWORKS V5.0F ECO2 would ACCVIO at routine updateuser. An error message indicating "authentication failure" or "synchronization failure" would be displayed.

```
%SYSTEM-F-ACCVIO, access violation, reason mask=01, virtual address=0052FD73,
PC=00068B94, PSL=0BC00000
%TRACE-F-TRACEBACK, symbolic stack dump follows
module name   routine name   line    rel PC    abs PC
                                      00068B94  00068B94
SSILOGON      updateuser      46826   000001A5  0002E811
SSILOGON      processrec      46946   0000017F  0002EC07
SSILOGON      syncdelta       47579   00000779  00030335
NETLOGON      dologonsync     48398   000000D8  0002B658
                                      000C2685  000C2685
MTS$MAIN      main             2966   0000001B  0002801F
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.23 Wrong Behavior If the File is Renamed with an Extension of More Than 39 Characters

Problem:

From a Windows client, if you rename a file residing on an Advanced Server Version 7.3A ODS-2 disk share with an extension of more than 39 characters, the rename operation appears to be successful on the client, but the file becomes unusable until the next synchronization between the client and the server. On ODS-2 disks, the Advanced Server Version 7.3A does not support file names with more than 39 characters in the file extension. Attempts to rename a file in such a way now fails with an error message indicating the failure.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.24 Error in Advanced Server Version 7.3A PWRK$ACME_STARTUP

Problem:

When you move the two VAX external authentication images PWRK$ACME_
MODULE_VAX.EXE and PWRK$ACME_STARTUP.COM distributed with the
Advanced Server Version 7.3A ECO1 to a VAX node, the following error message
displays:

```
$ original_parse_style = F$GETJPI("", "PARSE_STYLE_PERM")
%DCL-W-IVKEYW, unrecognized keyword - check validity and spelling
\PARSE_STYLE_PERM\
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.25 Server Crashes in BUFIO, Routine lm_force_close

Problem:

In rare circumstances when attempting to remove an entry from the Open File
Cache queue, the server might crash in routine lm_force_close.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.26 ADMINISTER Command REMOVE USER/GROUP Confirmation Prompts to Include Domain/Member Server Name

Problem:

When a user executes the ADMINISTER command REMOVE USER, the
confirmation prompt does not show the domain name from which the user will be
removed.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.27 MCP Ran Out of Pipe Instances

Problem:

While waiting for pipe server to complete a pipe-onen, the pipe threads might
stall and sometimes the Advanced Server might hang.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.28 Printing Sometimes Fails with the File Lock Error

Problem:

When a client user attempts to print a document on a print share on the Advanced Server, the operation fails with the following error:

```
"Unable to write the file because another process has locked a portion of
 the file."
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.29 Network Problems Cause OPLOCK Timeouts

Problem:

Network problems sometimes lead to OPLOCK timeouts. These timeouts cause threads to hang, which eventually causes the server to hang.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.30 ADMINISTER SET PASSWORD Resulted in ACCVIO

Problem:

Advanced Server access violated on NULL when freeing buffers.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.31 Process Startup Fails Due to Wrong Default Directory

Problem:

PWRK$LICENSE_R erros are seen when creating a process.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.32 MCP Crashes in Module VCDROPPED, Routine mcpvcdropped

Problem:

Processing client requests with service bits other than "00" or "20" resulted in MCP crash.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.33 "Sharedb" File Could Grow to an Unreasonable Size, and Could Not be Shrunk Using "blobadm"

Problem:

When a share is modified, the Advanced Server Version 7.3 creates a new object for that share in the share database file. The old object should be deleted, but a bug in the Version 7.3 code prevents that from happening. The file space occupied by the old object and its key slot become permanently unavailable for re-use. This was fixed in Version 7.3A, but customers that upgraded from Version 7.3 to 7.3A were still affected with an unreasonable size for "Sharedb".

Solution:

A new "blobadm" option (-"E" -u) has been created to recover the inaccessible objects and key slots in a share database file.

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.34 Crashes or Hangs Caused by OPLOFC Threads

Problem:

Design and implementation issues with OPLOCKS and Open File Cache (OFC).

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.35 Avoid Logging Unnecessary Event Types

Problem:

Windows 2000 clients broadcast netlogon packets with a null user name. The Advanced Server logs these packets as security events of event type 529, and fails the logon request. This happens frequently. Because of this, security event logs keep growing.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.36 Browser Service Stays in PENDING State

Problem:

If you have an Advanced Server multi-node cluster PDC, and you hide the servers via the "srvhidden" registry value, then all of the browsers that are not the "active" browser will never leave the "Start Pending" service state. The "active" browser is the one that comes to life first and claims the PWRK$BROWSER lock in EX mode.

Solution:

The problem was fixed in the previous release, but has been restructured in Version 7.3A-ECO2. Although the Browser starts correctly on all the cluster nodes, the ADMINISTER SHOW COMPUTER command might still take some time to display all the servers. This is normal and intended behavior.

9.37 Excessive Pipes Consumption and File Lock Problems Due to Invalidated Sessions

Problem:

Various symptoms such as clients not being able to access the server's named pipes, files and other resources on the server remaining locked indefinitely although the client is no longer accessing them, etc.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.38 PWRK$LMSRV Crashes in Module APICHECK, Routine ApiAccessCheckAndAudit

Problem:

Server crashed when a NULL primary token was accessed.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.39 Memory Leak When RPC Throws an Exception

Problem:

PWRK$LMBROWSER dies with the following errors and then the process crashes.

```
t_alloc T_UNITDATA failed: system error - failed to allocate virtual memory
t_alloc T_UNITDATA failed: system error - failed to allocate virtual memory
t_alloc T_UNITDATA failed: system error - failed to allocate virtual memory
%DEBUGBOOT-W-EXQUOTA, process quota exceeded
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=000000000034B024, PS=0000001B
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.40 Session Thrashing

Problem:

This problem can be seen most easily by mapping two shares from a Windows 95 client, one using the server listenname, and one using the cluster alias name. If you do this using a Version 6.1 or 7.3 server, then the client might use both drives simultaneously. In Version 7.3A, only one drive was allowed to be active at a time. The other one was disconnected.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.41 REGUTL Utility Unaware of New Registry Value

Problem:

You cannot modify the time period between password changes for machine accounts.

In the Version 7.3 release of Advanced Server, the registry value that was used for timing changes to machine account passwords was netlogon\ssipasswdage, specified as the number of seconds. Because of the difficulty some users had computing the number of seconds, the Version 7.3A release used the registry value netlogon\MaximumPasswordAge for timing changes to machine account passwords, specified as the number of days. The REGUTL program has been updated to recognize this change.

For more details about the significance of this registry value, refer to Microsoft technet article Q175468

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.42 Missing Out on Open Files/Pipes, Connections and Shares During Enumeration

Problem:

When we try to enumerate the open file(s) / pipe(s), connections using

```
ADMIN> show open
ADMIN> show connections
```

and shares using Server Manager in Windows, you may not see the right output. Either the resources do not get displayed at all or they get associated with the wrong user names giving a wrong output.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

The Server Manager and ADMINISTER commands mentioned above now displays the correct results. If the user associated with a resource is not found (such as the user has logged off), and the resource is still in use, the S erver Manager displays the resource with no user name.

9.43 Autoshares Shows Garbled Information in the Description Field and Modification of that Share Creates a New Share

Problem:

Autoshares show garbled information in the description field. Modifying the description of such an autoshare adds a new share (with the name of the autoshare) in the share database file, and this new share cannot be removed. The result is a corrupted database file.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.44 Cannot Establish Trust with Windows 2003 Domain

Problem:

When a Version 7.3A-ECO1 Advanced Server is the PDC of a domain, it is unable to establish a trust with a domain that has a Windows 2003 server as its PDC emulator. The Advanced Server can neither trust nor be trusted by the Windows 2003 domain.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.45 "Access Denied" Error While Accessing Non-stream Files On ODS-2 Disks

Problem:

While accessing non-stream files on ODS-2 disks, Advanced Server fails to convert Meta-pathname into ODS-2 encoded RMS pathname. This could result in "access denied" failures when a user had access.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

9.46 Advanced Server Does Not Bind to the Correct Device on a Multihomed System

Problem:

On a multihomed system, Browsing and Netlogon services always use the IP address associated with the interface that was configured first. If the IP address indicated by PWRK$KNBDAEMON_IPADDR is not the first one in the TCPIP bind order, "Browsing" , "Netlogon" and "Nbshow" commands would fail.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO2 for OpenVMS.

10

Problems Corrected in Advanced Server V7.3A-ECO3 for OpenVMS

10.1 Server Crashes in Routine FileEnumWorker()

Problem:

The sever might crash with an access violation (ACCVIO) in module ENUMS, routine FileEnumWorker. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
26-JAN-2004 07:27:53.94 20402F29:04CF0498 sso_work: starting task SSOwork 01
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000080, PC=00000000000E9058, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image           module    routine     line       rel PC           abs PC
PWRK$LMSRV      ENUMS     FileEnumWorker
                                       117495  00000000000023C8  000000000E9058
PWRK$LMSRV      ENUMS     realFileEnum
                                       117822  0000000000002B9C 00000000000E982C
PWRK$LMSRV      ENUMS     NetrFileEnum
                                       117963  0000000000002E30 00000000000E9AC0
PWRK$LMSRV      SRVSVC_S  srvsvc_NetrFileEnum
                                        33934  000000000000196C 00000000000AEF1C
PWRK$LMAPISHR RPCCALL     rpc__call_put
                                        32676  0000000000000204 0000000000614174
PWRK$LMAPISHR CNSRV       rpc__ncacn_process_request
                                        42142  0000000000001F78 000000000060ED48
PWRK$LMAPISHR CNSRV       rpc__ncacn_datawork
                                        42611  0000000000002D20 000000000060FAF0
PWRK$LMAPISHR RPCCALL     callwork    32751  00000000000004D0
PWRK$CSSHR_V7 MTS         MTS$CONTEXT_SWITCH
                                         6673  0000000000000104 000000000039C5E4
PWRK$CSSHR_V7 MTS         MTS$MAIN_SCHEDULER                 ?                 ?
PWRK$LMSRV    MTS$MAIN    main         5678  00000000000000D8 0000000000091A68
PWRK$LMSRV    MTS$MAIN    __main          0  0000000000000070 0000000000091A00
                                          0  FFFFFFFF8028759C FFFFFFFF8028759C
28-JAN-2004 09:01:31.05 20402F29:044B3120 PLM_exit_handler: releasing lock
database resources...
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.2 Server Does Not Respond to Any Requests from the Clients

Problem:

The PWRK$LMSRV process becomes unresponsive to clients' requests. The only solution to this problem is to restart the Advanced Server.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.3 Many Sessions Consumed by 'datagrams on name 00'

Problem:

Often the clients are unable to connect to the server and the ADMINISTER commands fail with the following error message "network path not found".

The PWRK$KNBDAEMON log file reports:

```
***** No free KNBCB available...You may need to re-configure for more clients!
```

The command $NBSHOW KNB shows many sessions allocated/used by "datagrams on name 00":

```
num   state nmcb  next  accq  rname              raddr
  1.   0000    0     0     0   --datagrams on name 00--
  3.   0000    0     0     0   --datagrams on name 00--
  4.   0000    0     0     0   --datagrams on name 00--
  5.   0000    0     0     0   --datagrams on name 00--
  6.   0000    0     0     0   --datagrams on name 00--
  8.   0000    0     0     0   --datagrams on name 00--
  9.   0000    0     0     0   --datagrams on name 00--
 12.   0000    0     0     0   --datagrams on name 00--
 14.   0000    0     0     0   --datagrams on name 00--
 15.   0009    7   448     0   "CCS001        00"  10.1.5.29
 17.   0000    0     0     0   --datagrams on name 00--
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.4 ADMINISTER Utility Crashes While Loading the Client Codepage Table

Problem:

ADMINISTER utility crashes with the following footprint, with an additional error message that, it was not able to initialize server character set tables whenever ASV datafiles reside on an ODS-5 disk and the process's case, which executes the ADMINISTER utility, was set to "sensitive".

```
image           module      routine      line      rel PC            abs PC
                                            0  FFFFFFFF80888954 FFFFFFFF80888954
PWRK$MGTLIBSHR  ML_ERROR    ML_Err_Signal
                                        40365  00000000000003F8 00000000002FF278
PWRK$MANAGER    MANAGER     Manager
                                        56422  0000000000000490 0000000000040490
PWRK$CSSHR_V7   MTS         MTS$CONTEXT_SWITCH
                                         6673  0000000000000104 00000000001145E4
PWRK$CSSHR_V7   MTS         MTS$MAIN_SCHEDULER             ?                ?
PWRK$MANAGER    MTS$MAIN    main         5678  00000000000000D8 000000000005CEE8
PWRK$MANAGER    MTS$MAIN    __main          0  0000000000000070 000000000005CE80
                                            0   FFFFFFFF8028363C FFFFFFFF8028363C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.5 Problem With Windows NT-style Printing - Settings Done by Administrators are Not Visible to Users That are Members of Domain Users Group

Problem:

Normally when a user, who is only a member of Domain Users group, adds a printer on the PC client, which is served by a Print Server, the client adds a set of registry values in the local PC client at the location:

```
[HKEY_LOCAL_MACHINE.Software.Microsoft.WindowsNt.CurrentVersion
.Print.Providers.LanMan Print Services.Servers.<printserver>.
Printers.<printershare>]
```

These registry keys store the printer settings particular to that PC client and gets synchronized with the server registry whenever there is any changes in the print server settings.

These registry keys store the printer settings particular to that PC client and gets synchronized with the server registry whenever there is any change in the print server settings.

Since there was a problem in the creation of the proper printer keys at the above mentioned location, synchronization between the client registry and server registry never occurred. This caused a problem whenever Advanced Server was configured as print server.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. Now all the printer related keys get created properly in the client and whenever the client uses the printers served by Advanced Server Print servers, the latest settings set by Printer Administrator gets reflected on the client side.

10.6 Error While Executing ADMINISTER SHOW HOSTMAP

Problem:

Whenever an explicit hostmapping from lanman user to hostname user reaches certain number, say 1600-1650, the ADMINISTER SHOW HOSTMAP command does not list the hostmappings, instead, the following error message is displayed.

```
%PWRK-E-ERRGETHOSTMAPS, error getting host mappings
-LM-E-ERROR_MORE_DATA, additional data is available
```

A similar problem was observed with the command ADMINISTER SHOW HOSTMAP/HOSTUSER whenever many (more than 1600-1700) lanman users map to a single hostuser.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. Now the ADMINISTER command successfully lists all the explicit hostmappings (including the case where many lanman user mapping to single host user) even if the number of hostmap entries exceed 1650.

10.7 PWRK$LMSRV Process Crashes in Module FORCE

Problem:

In Version 7.3A-ECO2 of the Advanced Server for OpenVMS, the server crashes due to an ACCVIO in module Force, routine get_latest_logoff. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000000000
007C, PC=0000000000170008, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module   routine     line       rel PC         abs PC
PWRK$LMSRV   FORCE    get_latest_logoff
                                   120953  0000000000000998 000000000170008
PWRK$LMSRV   FORCE    force_logoff
                                   120741  0000000000000318 00000000016F988
PWRK$LMAPISHR CALLOUT callout_task
                                   64950   00000000000003E8 000000000053B618
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.8 Alpha OpenVMS V7.3-1,PWRK$LMSRV Process Dumps in Module MTS

Problem:

In Version 7.3A-ECO2 of the Advanced Server for OpenVMS, the server crashes due to an ACCVIO in module MTS, routine MTS$CONTEXT_SWITCH. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=04, virtual
address=00000000454A5245, PC=000000000039C564, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module       routine   line       rel PC         absPC
PWRK$CSSHR_V7 MTS      MTS$CONTEXT_SWITCH
                                      6617   0000000000000084 00000000039C564
PWRK$CSSHR_V7 MTS      MTS$WAIT
                                      6931   000000000000026C 000000000039C74C
PWRK$CSSHR_V7 THREAD       threadcond_wait
                                      12773  00000000000004E4 00000000003EECB4
PWRK$LMSRV    PPS_QUEUE_VMS PPS_os_queue_getinfo
                                      83411  0000000000000860 0000000000187640
PWRK$LMSRV    PPS_QUEUE    PPS_queue_getinfo
                                      69130  0000000000000098 0000000000193C28
PWRK$LMSRV    PRQUEUEAPI   ATTDosPrintQGetInfo
                                      113620 0000000000002850 0000000000142F70
PWRK$LMSRV    TRANS        dotransapi
                                      92521  0000000000002758 000000000011BCB8
PWRK$LMSRV    TRANS        smbtrans 91955  0000000000000E88 000000000011A3E8
PWRK$LMSRV    SMBWORK      smbwork  90398  00000000000019CC 00000000000FA76C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. The problem occurred whenever a client sent a printer queue name greater than 31 characters in length. Now the server will return an error "Queue not found to the client" and an error message "queue name <queue name> sent by the client <client name> is too long".

10.9 PWRK$LMSRV Process Crashes in Module PIPES, Routine pipe_open

Problem:

In Version 7.3A-ECO2 of the Advanced Server for OpenVMS, the server crashes due to an ACCVIO in module PIPES, routine pipe_open. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000000000
0000, PC=0000000000178864, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module      routine        line     rel PC            abs PC
PWRK$LMSRV   PIPES       pipe_open      90843 0000000000000264 0000000000178864
PWRK$LMSRV   BUFIO       lm_pipeopen    76129 000000000000104C 0000000000174B1C
PWRK$LMSRV   OPEN        NT_openX_open2 98793 0000000000003884 000000000010A254
PWRK$LMSRV   NTCREATE    smbntcreateX   88725 00000000000005E4 0000000000125904
PWRK$LMSRV   SMBWORK     smbwork        90398 00000000000019CC 00000000000FA76C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.10 PWRK$LMSRV Process Crashes in Module FILEAPI

Problem:

In Version 7.3A-ECO2 of the Advanced Server for Openvms, the server crashes due to an ACCVIO in module FILEAPI, routine fill_file_entry. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=000000000000
0080, PC=0000000000145E20, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module      routine          line     rel PC            abs PC
PWRK$LMSRV   FILEAPI     fill_file_entry  77988 0000000000000210 0000000000145E20
PWRK$LMSRV   FILEAPI     CommonFileGetInfo
                                          78683 0000000000001CE0 00000000001478F0
PWRK$LMSRV   FILEAPI     ATTNetFileGetInfo2
                                          79003 00000000000024AC 00000000001480BC
PWRK$LMSRV   TRANS       dotransapi       92521 0000000000002758 000000000011BCB8
PWRK$LMSRV   TRANS       smbtrans         91955 0000000000000E88 000000000011A3E8
PWRK$LMSRV   SMBWORK     smbwork          90398 00000000000019CC 00000000000FA76C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.11 Issues With Alert Service/Messages

Problem:

There were multiple problems related to alerter service:

- Even if the alerter service was stopped/disabled, alerter messages continue to be sent to the users specified by the registry key "alertnames".

- For error alert messages, the alert time was not reset

- If the dynamic registry keys were changed (like accessalert, erroralert, logonalert..), would log an event in the system event log file and display an error alert messages that were not required, as well.

Solution:

All the above mentioned issues are resolved in Advanced Server V7.3A-ECO3 for OpenVMS. After disabling alerter service, it is not required to define alertnames registry key to null ( ) string, to stop receiving alert messages.

10.12 Cannot Rename the Russian Cyrillic Folder in to English

Problem:

When the Server was configured for Russian Cyrillic language that maps to the server character set ISO 8859-5, it was not possible to rename Russian Cyrillic folder to an English letters. An attempt to rename Cyrillic folder results with the following symptoms/errors:

- Cannot rename folder name: Cannot find the specified file; make sure you specify the correct path and file name.

- Renamed English folder cannot be viewed at the clients window.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.13 %PWRK-E-LOGONERR, -LM-E-ERROR_TOO_MANY_, too many contextID's

Problem:

When a user, who is a member of a large number of groups (more than 745 groups), tries to logon to the domain, gets the following error:

```
%PWRK-E-LOGONERR, error logging user "<user_name>"
onto domain "<domain_name>"
-LM-E-ERROR_TOO_MANY_, too many context ID's
(If an user tries to log-on to the domain using ADMIN utility.)
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. Using REGUTL, assign a value to "tokensidlimit" registry key. This value should be greater than the maximum number of groups to which a user may belong to.

```
"$ regutl set param * tokensidlimit
<appropriate_value>" on an Advanced Server
for OpenVMS system.
```

10.14 NetBIOS Connectivity Problems

Problem:

Retrieval of adapter status information of a P-Node machine fails, when a Windows client is configured as a peer-to-peer node (no broadcast), by setting the following registry key.

```
NodeType = 2)

\Registry\Machine\System\CurrentControlSet\Services\NetBT\Parameters
NodeType = REG_DWORD 0x00000002

Executing following command on a VMS system

    NBSHOW KNBSTATUS <P node_name>

results in error: <node_name> no response
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.15 Advanced Server Cluster-Alias Does Not Appear in Browse List

Problem:

Announcement of cluster-alias and server names would not exactly reflect the values (YES or NO) set on the associated registry keys, "PWRKALIASHIDDEN" and "SRVHIDDEN". Also, when browser service was not started, MCP did not appropriately announce the cluster-alias name. However, MCP announced the server names correctly, based on the value set on "SRVHIDDEN" key.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.The Server announcements correctly reflect the values set on PWRKALIASHIDDEN and SRVHIDDEN keys. For related restrictions see Section 11.9.2, Browser Service Stays in START PENDING State.

10.16 PWRK$LMSRV Process Crashes in Routine alloc_netbuf()

Problem:

In Version 7.3A-ECO2 of the Advanced Server for OpenVMS, the server crashes due to an ACCVIO in module LIBBDSC, routine alloc_netbuf( ). A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=000000004D5D4F30, PC=0000000000384574, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module      routine    line      rel PC            abs PC
PWRK$CSSHR_V7  LIBBDSC     alloc_netbuf
                                       14530 0000000000002774 0000000000384574
PWRK$CSSHR_V7  LIBBDSC     LIB_alloc_clientbuffer
                                       13602 0000000000000798 0000000000382598
PWRK$LMSRV     OPLOCK      tell_client
                                       68406 0000000000000314 0000000000168344
PWRK$LMSRV     OPLOCK      free_oplock
                                       68577 0000000000000A98 0000000000168AC8
PWRK$CSSHR_V7  PLM         oplock_check
                                       20619 000000000000BFD8 00000000003AA2D8
PWRK$CSSHR_V7  PLM         PLM_filelock
                                       16657 0000000000001AC4 000000000039FDC4
PWRK$LMSRV     FILEACCESS  OpenFile   76623 0000000000000484 0000000000169664
PWRK$LMSRV     OPEN        NT_openX_open2
                                       99066 00000000000034A8 0000000000109E78
PWRK$LMSRV     NTCREATE    smbntcreateX
                                       88725 00000000000005E4 0000000000125904
PWRK$LMSRV     SMBWORK     smbwork    90398 00000000000019CC 00000000000FA76C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

10.17 Problem with NT-Style Printing, each Job Prints Two Separator Pages

Problem:

With NT-Style printing, Advanced Server adds /BURST and /NOFEED qualifiers for each job it creates, resulting in two separator pages, one for the job and the other for the file.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. If the administrator requires these qualifiers, for a desired job, he can set them at the queue level.

10.18 Advanced Server Cannot Create the PCX$SERVER Correctly

Problem:

The DECnet phase V session control application, PCX$SERVER would not register properly, during installation of Advanced Server. When DECnet was used as a transport on the PC, the application, eXcursion would fail to establish a session with the VMS system, unless Advanced Server was started. The Advanced Server startup procedure always created the object correctly.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS. The PCSI installation of Advanced Server would now create the PCX$SERVER correctly.

10.19 PWCONVERT Cannot Convert Directory File Name Correctly, If the Length of the Directory Name Exceeds 39 Characters

Problem:

The converted file name would result in the expected name, with the string "DIR" appended to it, keeping the file extension blank. This would make the entire directory tree to be inaccessible, starting with the problematic directory name. The desired behavior was to have "DIR" as an extension, if it was a directory, with a period (".") as path name separator.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO3 for OpenVMS.

11

Problems Corrected in Advanced Server V7.3A-ECO4 for OpenVMS

11.1 PWRK$KNBDAEMON Fails To Start with Multinet V4

Problem:

After upgrading Advanced Server to Version 7.3A ECO3, PWRK$KNBDAEMON fails to start with Multinet. The following error is displayed in the pwrk$knbdaemon_<nodename>.log

```
Wed Oct 29 08:53:36 2003 bind_a_port(0): t_bind failed: 5
Wed Oct 29 08:53:36 2003 Port binding failed
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.2 Browser Log Fills up With Statements "Remember the Alias Name"

Problem:

PWRK$LMBROWSER log file on the "active" browser cluster member logs the following message several times per minute:

```
25-JUL-2004 12:55:04.67 26A00459:00681E18 Remember the alias name
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.3 Warning Message Seen on Systems Running DECnet Phase IV During Product Installation

Problem:

While registering a network object, PCX$SERVER, the installation procedure attempts to use the DECnet phase V image, NCL; instead of the DECnet phase IV image, NCP.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.4 NTLM V2 - Lmcompatibilitylevel Issue

Problem:

If the client has lmcompatibility level set to "Send NTLMV2 responses only", Advanced Server Version 7.3A ECO3 (Member) server denies access (prompts for username/password).

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.5 Server Looping When Disk Full

Problem:

When a client attempts to save/write to a file on an Advanced Server share, residing on a disk with insufficient free blocks, the PWRK$LMSRV process may go into an indefinite loop, increasing the IO constantly, causing the application at the client side to freeze.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.6 Lanman Style Printing—Crash in lmsrv

Problem:

With Lanman printing style, when Advanced Server refers to the VMS print queue (both printer or routing queue), which has thousands of job entries, the LMSRV process may crash occasionally.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.7 Sessions Get Disconnected Despite Having Files Kept Opened

Problem:

After "Autodisconnect" timeout, a session gets invalidated even though the files are open on the session.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.8 System Crashes in STREAMSOS, Routine WriteStream()

Problem:

The system crashes while sending a response to a client, as the server attempts to reference an invalid transport handle.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.9 NT Style Printing - Advanced Server Hangs While Accessing Printers

Problem:

With NT style printing enabled, Advanced Server for OpenVMS hangs for at least one minute, when a PC user switches to page layout in Microsoft Word. Also, all other commands to the server hang for a minute or more.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.10 Advanced Server Crashes When Deleting Print Shares

Problem:

With NT-style printing enabled, the Server might crash with the following two, different, footprints:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=FFFFFFFF8098A8E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows

image           module     routine       line      rel PC          abs PC
                                            0 0000000000000000 FFFFFFFF8098A8E8
PWRK$LMSRV      SPLCACHE   get_from_cache
                                       104329 0000000000002880 00000000000AFEB0
PWRK$LMSRV      SPLDRV     GetDriverName
                                       128608 000000000000286C 00000000000D3DAC
PWRK$LMSRV      SPLDRV     SplGetPrinterDriverEx
                                       128711 0000000000002AD8 00000000000D4018
PWRK$LMSRV      RPCSPOOL   RpcGetPrinterDriver2
                                       124318 0000000000003834 00000000000DE704
PWRK$LMSRV      NTSPL_S    winspool_RpcGetPrinterDriver2
                                        35671 0000000000007988 00000000000C8798
PWRK$LMAPISHR RPCCALL      rpc__call_put
                                        32676 0000000000000204 00000000006341A4
PWRK$LMAPISHR CNSRV        rpc__ncacn_process_request
                                        42142 0000000000001F78 000000000062ED78
PWRK$LMAPISHR CNSRV        rpc__ncacn_datawork
                                        42611 0000000000002D20 000000000062FB20
PWRK$LMAPISHR RPCCALL      callwork    32751 00000000000004D0 0000000000634470
PWRK$CSSHR_V7 MTS          MTS$CONTEXT_SWITCH
                                         6673 0000000000000104 00000000003BC644
PWRK$CSSHR_V7 MTS          MTS$MAIN_SCHEDULER                ?                 ?
PWRK$LMSRV      MTS$MAIN   main         5678 00000000000000D8 0000000000091AB8
PWRK$LMSRV      MTS$MAIN   __main          0 0000000000000070 0000000000091A50
```

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00,
virtual address=0000000000000000, PC=FFFFFFFF8098A8E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows

image           module    routine       line     rel PC          abs PC
                                            0 0000000000000000 FFFFFFFF8098A8E8
PWRK$LMSRV      GETPRN    GetPrinterSize
                                       115909 0000000000001468 00000000000EF128
PWRK$LMSRV      GETPRN    SplGetPrinter
                                       117463 0000000000002D8C 00000000000F0A4C
PWRK$LMSRV      RPCSPOOL  RpcGetPrinter
                                       122222 000000000000102C 00000000000DBEFC
PWRK$LMSRV      NTSPL_S   winspool_RpcGetPrinter
                                        32417 00000000000015D4 00000000000C23E4
PWRK$LMAPISHR RPCCALL     rpc__call_put
                                        32676 0000000000000204 00000000006341A4
PWRK$LMAPISHR CNSRV       rpc__ncacn_process_request
                                        42142 0000000000001F78 000000000062ED78
PWRK$LMAPISHR CNSRV       rpc__ncacn_datawork
                                        42611 0000000000002D20 000000000062FB20
PWRK$LMAPISHR RPCCALL     callwork      32751 00000000000004D0 0000000000634470
PWRK$CSSHR_V7 MTS         MTS$CONTEXT_SWITCH
                                         6673 0000000000000104 00000000003BC644
PWRK$CSSHR_V7 MTS         MTS$MAIN_SCHEDULER                ?                ?
PWRK$LMSRV     MTS$MAIN   main           5678 00000000000000D8 0000000000091AB8
PWRK$LMSRV     MTS$MAIN   __main            0 0000000000000070 0000000000091A50
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.11 Suppress Redundant Logging

Problem:

The Server log file is flooded with some of following informational messages:

```
Client <name> has sent wrong TID
Spurious thread resume!
PC : <PC name> - bufptr->fdp is zero
The bucket_ptr->free_index value has been reset!
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.12 Advanced Server Version 7.3A-ECO3 - When a User Changes Password, the Password Expired Flag is Set

Problem:

When an externally authenticated user enters the "$SET PASSWORD" DCL command or the ADMINISTER user enters the "ADMIN SET PASSWORD" DCL command, to set the password against a Windows 2003 active directory domain, the password is flagged as expired.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.13 PWRK$LMSRV Crashes in Module SAMWRAP2, Routine NetUserNtPasswordSet

Problem:

While performing a VMS "set password" operation, on an externally authenticated account, the server might crash. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%TRACE-F-TRACEBACK, symbolic stack dump follows
image           module          routine   line     rel PC           abs PC
PWRK$LMAPISHR SAMWRAP2     NetUserNtPasswordSet
                                          115566 0000000000000060 00000000005E7B50
PWRK$LMAPISHR RPCUSER      NetRPCUserChangePassword
                                          127971 00000000000028C8 00000000005E2B58
PWRK$LMSRV SSIGNON_PROC ssignon_changepassword
                                          142714 0000000000000324 000000000019D244
PWRK$LMSRV SSIGNON_PROC ssignon_processmessage
                                          144883 0000000000002F58 000000000019FE78
PWRK$LMSRV SSIGNON_COM  sso_work
                                           70899 0000000000001900 0000000000176C90
PWRK$CSSHR_V8 MTS       MTS$CONTEXT_SWITCH
              6673 0000000000000104 00000000003BC634
PWRK$CSSHR_V8 MTS       MTS$MAIN_SCHEDULER
                                              ?                 ?
PWRK$LMSRV MTS$MAIN      main
                                            5678 00000000000000D8 0000000000091A78
PWRK$LMSRV MTS$MAIN      __main
                                               0 0000000000000070 0000000000091A10
                                               0 FFFFFFFF80335F94 FFFFFFFF80335F94
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.14 <70>SYSTEM Cannot Login With ACME LOGIN Installed and NT ACME First

Problem:

A call to map the SYSTEM account on a VMS system running Advanced Server Version 7.3-ECO2 returns reason_code =2221 (No such user). While the same request on a VMS system running Advanced Server Version 7.3A* would return reason_code = 1326 (Logon Failure)

This change in behavior was affecting the way the NT ACME Agent handles requests, and that was resulting in failed login attempts, which should otherwise be successful.

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.15 OpenVMS 7.3-2/Advanced Server 7.3-A3 Server Crash

Problem:

Occasionally, the server might crash. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000010, PC=000000000062D824, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module  routine    line    rel PC         abs PC
PWRK$LMAPISHR CNSRV  rpc__ncacn_process_bind
                                    41480 0000000000000A24 000000000062D824
PWRK$LMAPISHR CNSRV  rpc__ncacn_datawork
                                    42600 0000000000002CD8 000000000062FAD8
PWRK$LMAPISHR RPCCALL  callwork
                                    32751 00000000000004D0 0000000000634470
PWRK$CSSHR_V7 MTS   MTS$CONTEXT_SWITCH
                                    6673 0000000000000104 00000000003BC644
PWRK$CSSHR_V7 MTS   MTS$MAIN_SCHEDULER
                                        ?                    ?
PWRK$LMSRV MTS$MAIN main
                                    5678 00000000000000D8 0000000000091AB8
PWRK$LMSRV MTS$MAIN __main
                                        0 0000000000000070 0000000000091A50
                                        0 FFFFFFFF8025BE94 FFFFFFFF8025BE94
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

11.16 Advanced Server Crashes When Clients Try Connecting to It

Problem:

Occasionally, the server might crash. A traceback similar to the following would
be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=0000000000117AF8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image    module    routine        line    rel PC         abs PC
PWRK$LMSRV  SESSSETUP  AddExtraSidsToTokenSids
                                    134347 00000000000030B8 0000000000117AF8
PWRK$LMSRV  SESSSETUP  LogMeIn     132769 00000000000006E8 0000000000115128
PWRK$LMSRV  SESSSETUP  smbsesssetup 134020 00000000000029E8 0000000000117428
PWRK$LMSRV  SMBWORK  smbwork       90471 0000000000001B00 00000000000FD540
PWRK$CSSHR_V7  MTS   MTS$CONTEXT_SWITCH
                                    6673  0000000000000104 00000000003BC644
PWRK$CSSHR_V7  MTS   MTS$MAIN_SCHEDULER
                                                        ?                    ?
PWRK$LMSRV  MTS$MAIN  main         5678  00000000000000D8 0000000000091AB8
PWRK$LMSRV  MTS$MAIN  __main          0  0000000000000070 0000000000091A50
                                        0  FFFFFFFF8028F63C FFFFFFFF8028F63C
```

Solution:

This problem is resolved in Advanced Server V7.3A-ECO4 for OpenVMS.

12

Problems Corrected in Advanced Server V7.3B for OpenVMS

This chapter describes problems resolved by software changes made in Advanced Server V7.3B for OpenVMS. These software changes will also be included in future ECOs. The problems are described in the sections indicated in the following table:

Problem Type	Section Number
Installation and Configuration Problems	12.1
Server Problems	12.2
File/Printer Share Problems	12.3
Transport Problems	12.4
Browser Problems	12.5

12.1 Installation and Configuration Problems

This section describes installation problems corrected in Advanced Server V7.3B for OpenVMS.

12.1.1 Problem with RestrictAnonymous Registry Parameter

Problem:

In a domain where Advanced Server V7.3A for OpenVMS or later is configured as Primary Domain Controller (PDC), PATHWORKS V6.1 can be added to that domain, even if Registry parameter RestrictAnonymous is set to 1.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.1.2 pwrk$*_V8 Images Not Installed on OpenVMS V7.* Systems

Problem:

When Advanced Server is installed on OpenVMS V7.* systems, then the PWRK$*_V8 images will not be installed. If you upgrade to OpenVMS V8.* version, either you have to manually extract PWRK$*_V8.* files from the kit and copy them to the respective locations or reinstall the kit.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2 Server Problems

This section describes the file server problems corrected in Advanced Server V7.3B for OpenVMS.

12.2.1 Server Hangs on all Nodes in the Cluster

Problem:

The Advanced server running on a four node cluster does not respond to client requests as it hangs on all the nodes in the cluster. On one of the nodes, there were numerous copies of the following error message:

```
PCSCACHE\Passthru_acquire_lock: unexpected VMS status error! (0x9F0)
PCSCACHE\Passthru_acquire_lock: unexpected VMS status error! (0xE0A)
PCSCACHE\Passthru_acquire_lock: unexpected VMS status error! (0xE0A)
.
.
.
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.2 PWRK$LMSRV Process Crashes in Module PFS$OPS, Routine PFS_getuser( )

Problem:

The PWRK$LMSRV process might crash in strlen( ), in the module PFS$OPS, routine PFS_getuser( ). A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000064, PC=FFFFFFFF811A88E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module     routine    line        rel PC            abs PC
DECC$SHR_EV56
                                      0           0000000000008E8  FFFFFFFF811A88E8

PWRK$CSSHR_V7  PFS$OPS    PFS_getuser
                                      29089       0000000000010610 00000000003E79A0
PWRK$LMSRV     SESSSETUP   smbsesssetup
                                      134181      0000000000002AD8 0000000000117F68
PWRK$LMSRV     SMBWORK    smbwork
                                      90497       0000000000001A90 00000000000FE210
PWRK$CSSHR_V7  MTS        MTS$CONTEXT_SWITCH
                                      6673        0000000000000104 00000000003BC634
PWRK$CSSHR_V7  MTS        MTS$MAIN_SCHEDULER
                                      ?                            ?
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.3 Server Crashes When ADMINISTER Command is Executed to Close the Session

Problem:

When ADMINISTER command is executed to close the session, in the module TRANS, routine smbtrans, the PWRK$LMSRV process crashes. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
Image           module       routine       line    rel pc            abs pc
PWRK$CSSHR_V7   LIBCHARSET   LIB_ServerCPToClientCP
                                           22565   0000000000003718   000000038EA68
PWRK$LMAPISHR   CODESETCONV  ServerToClientCodeSetConv
                                           69909   00000000000000E8   000000000055EF68
PWRK$LMSRV      SRVLANG      SrvExportDownLevelString
                                           63892   0000000000000110   000000000019C620
PWRK$LMSRV      TRANSPARSE   unwindvwv
                                           73033   0000000000001FE0   00000000001A29A0
PWRK$LMSRV      TRANSPARSE   outparse
                                           73554   0000000000002EA8   00000000001A3868
PWRK$LMSRV      FILEAPI      CommonFileGetInfo
                                           78901   000000000000221C   000000000014B26C
PWRK$LMSRV      FILEAPI      ATTNetFileGetInfo2
                                           79044   000000000000259C   000000000014B5EC
PWRK$LMSRV      TRANS        dotransapi
                                           92542   0000000000002758   000000000011F0F8
PWRK$LMSRV      TRANS        smbtrans
                                           91976   0000000000000E88   000000000011D828
PWRK$LMSRV      SMBWORK      smbwork
                                           90471   0000000000001B00   00000000000FD540
PWRK$CSSHR_V7   MTS          MTS$CONTEXT_SWITCH
                                           6673    0000000000000104   00000000003BC644
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.4 PWRK$LMSRV Crashes in Routine SepSidInToken

Problem:

The PWRK$LMSRV process crashes during session setup in routine
SepSidInToken. A traceback similar to the following would be seen in the
PWRK$LMSRV log file:

```
Image           module       routine       line     rel pc            abs pc

WRK$LMAPISHR    ACCESSCK     SepSidInToken
                                           88066    00000000000000F8   0000000000655568
PWRK$LMAPISHR   ACCESSCK     SepAccessCheck
                                           88557    00000000000004E4   0000000000655954
PWRK$LMAPISHR   ACCESSCK     SeAccessCheck
                                           88752    0000000000000774   0000000000655BE4
PWRK$LMAPISHR   SECURITY     SampValidateObjectAccess
                                           124629   0000000000000A60   0000000000654CD0
PWRK$LMAPISHR   DOMAIN       PegSamrOpenDomain
                                           134145   0000000000000214   0000000000614654
PWRK$LMSRV      SAMRPC       SamrOpenDomain
                                           111461   00000000000003C8   00000000000A1F68
PWRK$LMSRV      SAMRPC_S     samr_SamrOpenDomain
                                           43460    0000000000001058   00000000000A4F58
PWRK$LMAPISHR   RPCCALL      rpc__call_put
                                           32676    0000000000000204   00000000006341A4
PWRK$LMAPISHR   CNSRV        rpc__ncacn_process_request
                                           42142    0000000000001F78   000000000062ED78
PWRK$LMAPISHR   CNSRV        rpc__ncacn_datawork
                                           42611    0000000000002D20   000000000062FB20
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.5 Set Password fails With Externally Authenticated User

Problem:

In a domain with Windows 2000 or Windows 2003 as a PDC emulator and Advanced Server configured as Member server, if a user tries to modify the password of an externally authenticated account using DCL SET PASSWORD command, the error messages similar to the following will be displayed:

```
$ SET PASSWORD
Old password:
New password:
Verification:
%SET-I-SNDEXTAUTH, Sending password request to external authenticator
%SET-E-EXTPWDERR, Password could not be set by external authenticator
-SYSTEM-F-AUTHFAIL, authorization failure
-ACME-E-FAILURE, requested operation has failed
```

Solution:

This Problem is resolved in Advanced Server V7.3B for OpenVMS. Note that if the password is changed by executing the DCL SET PASSWORD command, then the sessions established through ADMINISTER commands prior to password modification, will be lost. Users have to re-login again using the new password.

12.2.6 Delay in the Server Response to Pipe Open Requests

Problem:

If there are simultaneous pipe open requests from clients, there is a delay in the server response.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.7 PWRK$LMSRV Crashes in Module TRANSPARSE, Routine unwindvwv

Problem:

The PWRK$LMSRV process might crash in memcpy( ), in the module TRANSPARSE, routine unwindvwv. A traceback similar to the following would be seen in PWRK$LMSRV log file:

```
%TRACE-F-TRACEBACK, symbolic stack dump follows
image        module      routine   line    rel PC              abs PC
LIBOTS
                                    0      0000000000219D8    FFFFFFFF80CF99D8
PWRK$LMSRV TRANSPARSE unwindvwv
                                    73016  0000000000001E6C  00000000001A328C
PWRK$LMSRV TRANSPARSE outparse
                                    73578  0000000000002EA8  00000000001A42C8
PWRK$LMSRV SHAREAPI    ATTRNetShareGetInfo
                                    104883 0000000000002F9C  00000000001335FC
PWRK$LMSRV TRANS       dotransapi
                                    92569  0000000000002758  000000000011FB48
PWRK$LMSRV TRANS       smbtrans
                                    92003  0000000000000E88  000000000011E278
PWRK$LMSRV SMBWORK     smbwork
                                    90497  0000000000001A90  00000000000FE210
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.8 Advanced Server Does Not Support More than 32 %X86 ACEs

Problem:

When the ACL grows beyond 31 ACE's while adding users to the security mask of the file, the Advanced Server fails to display this file or crashes.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.9 PWRK$LMSRV Crashes in Routine FileEnumWorker

Problem:

The PWRK$LMRV process might crash in module ENUMS, routine FileEnumWorker while enumerating files opened on the server. A traceback similar to the following would be seen in the PWRK$LMSRV log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000000, PC=FFFFFFFF809A88E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module     routine      line      rel PC           abs PC
DECC$SHR_EV56
                                       0     00000000000008E8 FFFFFFFF809A88E8
PWRK$LMSRV     ENUMS     FileEnumWorker
                                       117407 0000000000002078 00000000000EC368
PWRK$LMSRV     ENUMS     realFileEnum
                                       117896 0000000000002A0C 00000000000ECCFC
PWRK$LMSRV     ENUMS     NetrFileEnum
                                       118037 0000000000002CA0 00000000000ECF90
PWRK$LMSRV     SRVSVC_S  srvsvc_NetrFileEnum
                                       33935  000000000000196C 00000000000B27DC
PWRK$LMAPISHR  RPCCALL   rpc__call_put
                                       2677   0000000000000204 0000000000635084
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.10 OpenVMS System Hangs During Reboot

Problem:

Advanced Server references quadword I/O database mutex, IOC$GQ_MUTEX through long word routines SCH$LOCKREXEC and SCH$UNLOCKEXEC which corrupts the IOC$GQ_MUTEX, causing the OpenVMS system to hang.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.11 PWRK$LMSRV Crashes in Routine resume_0

Problem:

The Advanced server might crash in module Thread, routine resume_0. A traceback similar to the following would be seen in the PWRK$LMSRV Log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual
address=0000000000000030, PC=0000000000417000, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image          module    routine       line     rel PC          abs PC
PWRK$CSSHR_V7  THREAD    resume_0
                                        20095 0000000000008070 0000000000417000
PWRK$CSSHR_V7  THREAD    threadresumelast
                                        15961 0000000000003C34 0000000000412BC4
PWRK$CSSHR_V7  WORKQ     WorkQ_queue_work_safe
                                        11798 0000000000000B30 0000000000419D80
PWRK$CSSHR_V7  WORKQ     WorkQ_queue_work
                                        11695 0000000000000944 0000000000419B94
PWRK$LMAPISHR  QUEUE     queue_put
                                        14017 00000000000000EC 000000000063266C
PWRK$CSSHR_V7  LIBIPC    mbreaddoneast
                                        52520 0000000000008420 000000000039D290
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.2.12 ADMINISTER SHOW SESSIONS and ADMINISTER SHOW CONNECTION Commands Do Not Display Information for all User Sessions

Problem:

If the number of user sessions exceeds 622, then ADMINISTER SHOW SESSION command will display session information only for 622 users.

If multiple users are connected to the Advanced Server from a Windows 2003 system through CITRIX terminal services client and if ADMINISTER SHOW CONNECTION command is executed on Advanced server, it displays the information only for the last user connected through CITRIX terminal service client and not for other users.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS

12.2.13 Advanced Server Always Establishes Secure Channel Against PDC

Problem:

If Advanced Server is configured as the Member Server in a domain, it always establishes secure channel with the PDC. In a domain where PDC lies across the WAN, if the communication channel is slow, the communication between the Advanced server and the Primary Domain Controller gets disconnected or timed out.

Solution:

This Problem is resolved in Advanced Server V7.3B. Note that if Advanced Server is configured as a Member Server to Windows 2000 or Windows 2003 domain, it can establish secure channel with any domain controller, if the registry parameter "MemberInAD" is set to 1.

The registry parameter can be set by executing the following commands:

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

```
$ REGUTL SET PARAMETER VMSSERVER MEMBERINAD 1 /CREATE
```

Once this registry parameter is created, /create qualifier need not be used to modify the parameter again. Also, Advanced Server needs to be restarted everytime the value of this registry parameter changes for the new value to take effect.

12.2.14 OpenVMS System Crashes in Routine OTS$MOVE_C+004D0

Problem:

The OpenVMS System might crash in routine OTS$MOVE_C+004D0, with the following Bugcheck information:

```
Bugcheck Type: INVEXCEPTN, Exception while above ASTDEL
Node: BB01 (Cluster)
CPU Type: hp AlphaServer ES80 7/1150
VMS Version: V8.2
Current Process: NULL
Current Image:
Failing PC: FFFFFFFF.80009B50 OTS$MOVE_C+004D0
Failing PS: 10000000.00000804
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3 File/Printer Share Problems

This section describes file access and printing problems corrected in Advanced Server V7.3B for OpenVMS.

12.3.1 Server-Based Licenses are Lost Whenever a Node in the Cluster Crashes

Problem:

In a cluster environment, all the nodes get the Server-Based licenses from a common license pool. If one of the node in the cluster crashes and one or more clients have Server-Based licenses assigned through that node, sometimes those licenses are lost until the Advanced Server is restarted on one of the node in the cluster.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.2 Advanced Server Shared Files Appear Empty When the Data is Requested from a Linux Client

Problem:

After mapping an ASV share from the Linux client, if an user tries to view the files, they appear empty.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.3 File Creation on a Linux Client Fails, and touch Command Hangs

Problem:

After mapping an ASV share from the Linux client, if an user tries to create a file using touch command, the command hangs until the Linux client re-establishes the session.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.4 Problem Accessing Shared Files from Windows 2003 SP1 Clients

Problem:

When Windows 2003 SP1 clients try to access files on Advanced Server share, they face the following problems:

- When the clients try to connect to the Advanced Server through \\server-name, the following error message is displayed:

  ```
  \\server-name is not accessible. You might not have permission to use this
  network resource. Contact the administrator of this server to find out if
  You have access permissions"
  ```

- Clients can connect to the server through the mapped network drives, but the access to documents is delayed.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.5 Users are Unable to Connect to Shares on Windows 2000 Member Servers or Workstations in a Domain

Problem:

In a domain with Advanced Server as PDC, the users will not be able to connect to shares on Windows 2000 member servers or workstations using the credentials of user(s) belonging to another domain where Advanced Sever PDC has a trust established.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.6 Viewing XML Files on Windows Using Internet Explorer Dislays an Error Message

Problem:

When an user tries to view an XML files generated on OpenVMS using Internet Explorer (IE) on Windows an error message similar to the following is displayed at the bottom of the page:

```
"The XML page cannot be displayed Cannot view XML input using XSL style sheet.
Please correct the error and then click the Refresh button, or try again later."
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.3.7 Unable to Copy or Print a File on Advanced Server Share if the File Size is Greater than the Datacache Size

Problem:

If clients try to copy a file to an Advanced Server share, there is a 3 minute delay if the file size is less than the Advanced Server data cache size. If the file size exceeds the data cache size, the clients time out after 3 minutes. This problem occurs even when client tries to a print a file using an Advanced Server shared printer.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.4 Transport Problems

This section describes problems related to the use of transport protocols with the Advanced Server, corrected in Advanced Server V7.3B for OpenVMS.

12.4.1 Messages are not Logged When WINS Server is Unavailable

Problem:

If the server is not able to register its name with the specified WINS server, messages indicating the unavailability of the WINS server are not logged.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS. Now the following messages will be displayed in the pwrk$knbdaemon_<node name>.log file :

- If WINS is unavailable the following message will be displayed:

  ```
  "*Warning*: WINS Server is unavailable
  (IP Addr: <WINS server ip address>)"
  ```

- When WINS is available, the following message will be dispalyed:

  ```
  "Server established contact to WINS Server
  (IP Addr: <WINS server ip address>)" (IP Addr: <WINS server ip address>)"
  ```

  _____ **Note** _____

  <node name> is the SCSNODE name of the system.

  _____

12.5 Browser Problems

This section describes problems with the Browser service corrected in Advanced Server V7.3B for OpenVMS.

12.5.1 Advanced Server Cluster Alias and Computer Names Not Displayed in Browse List

Problem:

If Advanced Server is acting as a master browser in a subnet other the domain master browser, it does not exchange its browse list with the domain master browser. Hence, the computer names maintained by Advanced Server master browser will not be displayed in other subnets.

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.5.2 Browser Will Be in the PENDING STATE on One of the Nodes in the Cluster

Problem:

In an OpenVMS cluster, when the Advanced Server is started on second node after starting it on the first node, the status of the Browser will be in the PENDING state. An error message similar to the following would be seen in the Event log:

```
"W 03/22/05 12:26:41 PM BROWSER   None          8021   N/A    MUTTER
The browser was unable to retrieve a list of servers from the browser master
\\MURMUR on the network nspnb/session. The data is the error code.
Data:0000: 2e 05 00 00 00 00 00 00    ........"
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.5.3 Advanced Server Crashes in Module Backup, Routine getsrvlist

Problem:

The Advanced server might crash during startup in the Module BACKUP, Routine getsrvlist. A traceback similar to the following would be seen in the PWRK$LMBROWSER Log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=
0000000000000000, PC=FFFFFFFF80DA88E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image           module  routine       line    rel PC              abs PC

DECC$SHR_EV56                                  ?   ?
PWRK$LMBROWSER BACKUP  getsrvlist    2707    0000000000000508    00000000000344E8
PWRK$LMBROWSER BACKUP  getsrvdom     82998   0000000000000D48    0000000000034D28
PWRK$LMBROWSER BACKUP  start_backup  83191   0000000000001240    0000000000035220
PWRK$LMBROWSER MASTER  find_master   80361   0000000000001A3C    0000000000033D1C
PWRK$LMAPISHR  CALLOUT callout_task   64995   00000000000003E8    00000000002E5658
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

12.5.4 Advanced Server Crashes in Module Backup, Routine getdomlist

Problem:
The Advanced server might crash during startup in the Module BACKUP, Routine getdomlist. A traceback similar to the following would be seen in the PWRK$LMBROWSER Log file:

```
%SYSTEM-F-ACCVIO, access violation, reason mask=00, virtual address=
0000000000000000, PC=FFFFFFFF80DA88E8, PS=0000001B
%TRACE-F-TRACEBACK, symbolic stack dump follows
image           module  routine       line    rel PC              abs PC
DECC$SHR_EV56                                  ?                  ?
PWRK$LMBROWSER  BACKUP  getdomlist    82841 0000000000000858 0000000000034838
PWRK$LMBROWSER  BACKUP  getsrvdom     83018 0000000000000DD8 0000000000034DB8
PWRK$LMBROWSER  BACKUP  start_backup  83194 0000000000001240 0000000000035220
PWRK$LMBROWSER  MASTER  find_master   80361 0000000000001A3C 0000000000033D1C
PWRK$LMAPISHR   CALLOUT callout_task  64995 00000000000003E8 00000000002E5658
```

Solution:

This problem is resolved in Advanced Server V7.3B for OpenVMS.

13

Restrictions in Advanced Server V7.3B for OpenVMS

This chapter describes restrictions and problems found in the Advanced Server for OpenVMS software. The restrictions and problems are described in the sections indicated in the following table:

Restriction/Problem Type	Section Number
Installation and Configuration Restrictions	13.1
Upgrade and Downgrade Restrictions	13.2
OpenVMS Registry Restrictions	13.3
File Server Restrictions	13.4
User Interface Restrictions	13.5
Windows 2000, Windows 2003 and Windows XP Related Restrictions	13.6
Printing/Print Management Restrictions	13.7
Event Logging Restrictions	13.8
Browser Restrictions	13.9
Domain Management Restrictions	13.10
Remote Management Restrictions	13.11
Transport Restrictions	13.12
OpenVMS Cluster Restrictions	13.13
Advanced Server with DEC Rdb (Oracle) Restrictions	13.14
Miscellaneous Restrictions	13.15

13.1 Installation and Configuration Restrictions

This section describes restrictions in the installation and configuration of the Advanced Server for OpenVMS software.

13.1.1 Advanced Server Cannot Coexist with PATHWORKS V5.0C for OpenVMS (LAN Manager) Server

Problem:

The Advanced Server for OpenVMS cannot participate in a domain with a server running PATHWORKS (LAN Manager) V5.0C. The V5.0C server incorrectly generates a name conflict when the Advanced Server for OpenVMS claims a group name that is used by both servers.

Solution:

To correct this problem, upgrade the PATHWORKS V5.0C server to PATHWORKS V5.0C ECO1, or a later version of PATHWORKS (LAN Manager).

13.1.2 Advanced Server May Fail at Startup If SYLOGIN.COM Executes with Errors

The Advanced Server process startup depends on successful execution of OpenVMS logins and logouts.

If your sites make use of SYLOGIN.COM to achieve cluster-member specific logon setup, and SYLOGIN.COM encounters errors, the Advanced Server startup hangs.

When this problem occurs, process startup either fails to generate log file messages or fails to complete.

13.1.3 Advanced Server Fails to Start If Any Processes Are Running the ADMININSTER Command-Line Interface

Problem:

If you attempt to start the Advanced Server while a process is running the ADMINISTER command-line interface, the startup may fail and a message similar to the following is displayed:

```
%PWRK-F-INSGBLSECTS, system has only 53 free global sections
-PWRK-I-REQGBLSECTS, PATHWORKS requires a minimum of 75

 The system does not have enough free global sections to use
 PATHWORKS.
 Please see the Installation Guide on how to increase the number of
 global sections by modifying the SYSGEN parameter GBLSECTIONS.
```

Solution:

Have any process that is running the ADMINISTER command-line interface exit from the program. To determine which processes are running the ADMINISTER command-line interface, use the following commands:

```
$ SHOW DEVICE/FILES SYS$SYSTEM: /OUT=TMP.TMP
$ SEARCH TMP.TMP PWRK$MANAGER.EXE
```

13.1.4 Ignore Recommendations to Terminate Deinstall (PRODUCT REMOVE)

Problem:

During the deinstallation procedure (PRODUCT REMOVE), errors might be encountered, followed by a message recommending that the procedure be terminated.

Solution:

Disregard this message and continue the procedure.

13.1.5 Authentication Fails After Attempt to Synchronize with a PDC Using a Windows NT Server with Service Pack SP5

Problem:

Windows NT Servers with Service Pack SP5 or greater have changed the way they perform the Synchronize with Primary Domain Controller function initiated from the Windows NT Server Manager. In a WAN environment, the synchronization attempt can result in problems such as described in the following sequence of events:

1. To initiate the synchronization, the user selects a specific BDC member instead of the cluster alias from the list in the Server Manager window.

2. After the user selects Synchronize With Primary Domain Controller from the Computer menu, Windows NT with Service Pack SP5 sends a "set secret" RPC to reset the $MACHINE.ACC secret. Windows NT with Service Pack SP3, for example, does not do this; it will query, but not set, the secret.

3. As a result, Windows NT with SP 5 resets the machine account in its own database; the account in this case is NOT the alias account.

4. Thus, the Advanced Server local machine account secret password no longer matches the alias machine account password on the PDC, which results in failures when attempting to authenticate with the PDC. These attempts fail with the following event:

       NET3210: Failed to authenticate with <PDC>

Solution:

To avoid this problem, when selecting the server from the list in the Server Manager Window, select the cluster alias of a specific BDC member name. Then choose Synchronize With Primary Controller from the Computer menu. If you already selected a specific BDC (instead of the cluster alias for that BDC) from the Server Manager Window, and the local and PDC machine accounts no longer match, this solution will resynchronize the accounts.

13.1.6 Configuration Might Fail If Disk Quotas Do Not Allow Enough Space in SYS$SCRATCH

Problem:

If disk quotas are enabled on the device that SYS$SCRATCH points to (usually the same device as SYS$LOGIN), the configuration might fail with the following error message.

PWRK-F-CONFIGERR, severe error during configuration.

Error getting this server's role from the existing databases.
Make sure the file server or another utility is not running
from a Member Server You must execute @SYS$UPDATE:PWRK$CONFIG again.
The Advanced Server configuration is incomplete and cannot continue.

Solution:

Because of the disk quota, PWRK$CONFIG.COM was unable to create files in SYS$SCRATCH. Remove the disk quota or increase the disk quota size to allow for enough space on the device for these files to be created.

13.1.7 PWRK$CONFIG.COM Might Report the Server as Supporting 0 PC Clients and No Transports

Problem:

When you configure your server, the PWRK$CONFIG.COM procedure might indicate that your server supports 0 PC clients and no transports, as in the following example:

```
 PCSG17 is currently configured to
     + support 0 PC clients
     + use the following transport(s): NONE
```

This occurs when configuration is not currently possible for your server, usually because the CHANNELCNT system parameter is too small to support any clients. In this case, the procedure should instead state that no valid configuration is currently possible, and it should correctly list the currently selected transports.

Solution:

Changing the server configuration parameters, when prompted, will allow you to select a valid configuration, including the desired transports.

13.2 Upgrade and Downgrade Restrictions

This section describes restrictions and problems involving attempts to upgrade or downgrade the Advanced Server from an earlier version.

13.2.1 Server Type Version Number Might Not Be Updated During Downgrade

Problem:

The server type of the Advanced Server V7.3B for OpenVMS (as indicated by the ADMINISTER SHOW COMPUTERS command, for example), is Advanced Server Version 4.0 for OpenVMS (the previous version was 3.51). If you upgrade an Advanced Server from an earlier version to Version 7.3 or higher, and later downgrade to the previous version again, the server type version number might not be correct. If this happens, the version number will still be displayed as 4.0 when it should be 3.51.

Solution:

You have to manually set the version number to make it correct. For instructions, contact HP customer support.

13.2.2 Upgrading Large Share Databases

Problem:

If you plan to upgrade your server and the share database is extremely large, when you run PWRK$CONFIG.COM the database upgrade may fail with an error message, as shown below:

```
Setting character set information in databases as needed ...

... Setting share database character set information.
Cannot open your sharefile.
Make sure it exists and you have read/write access for it.

%PWRK-F-SHARECHECK, error upgrading ShareDB
```

Solution:

Define the logical using the following command:

```
$ DEFINE/SYSTEM/EXEC PWRK$TEMP_CONFIG_DATACACHE_SIZE n-kbytes
```

For the value of *n-kbytes*, first try 4096 (4MB). If that does not work, try 6144 (6MB), and continue incrementing accordingly until you find a workable value with a minimum consumption of physical memory and process quota.

The setting established by the PWRK$TEMP_CONFIG_DATACACHE_SIZE logical is used during the configuration process only; it does not override the default data cache size set for server operation.

13.3 OpenVMS Registry Restrictions

This section describes restrictions relating to the Advanced Server and the OpenVMS Registry.

13.3.1 Changes to Incorrect Parameter Data Types in the Registry Do Not Take Effect

Problem:

Using the OpenVMS REG$CP utility or the Window NT RegEdt32 utility, it is possible to define a value in the registry with an incorrect data type. An invalid data type can prevent readers of the value's data from properly accessing the data in the registry.

Solution:

Use PWRK$REGUTL to create file server parameters in the OpenVMS Registry. PWRK$REGUTL can detect and report incorrect data types and prevent them from being saved in the registry. This assures they are created with the appropriate data type.

13.3.2 Changes Made to OpenVMS Registry Event Log Settings Do Not Take Effect

Problem:

Several values stored in the OpenVMS Registry are used for storing and displaying event log information. These values are stored in the following key and its subkeys:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\EventLog
```

When you attempt to change these settings, the change will not take effect. For example, if you attempt to change the location of the file to which events are logged, the events are still logged to the original file location.

13.3.3 The "^" Character Does Not Get Encoded in Parameter Values

Problem:

When the "^" character is specified as part of a parameter value, the value is stored in the OpenVMS Registry with only those characters that precede the "^" character. For example, if you specify computer name M_.76~^._P when configuring a server, the name gets stored in the OpenVMS Registry as M_.76~. For related restrictions, see Section 13.10.4.3, Problems Using Certain Characters

for a Member Server Computer Name or Cluster Alias Name, and Section 13.4.14, Server Language Restrictions.

Solution:

Do not use the "^" character in parameter values.

13.4 File Server Restrictions

This section describes restrictions in the file server.

13.4.1 Restriction When estimate_filesize is Set to 1 in PWRK.INI File

Problem:

An XML file generated on OpenVMS and residing in an Advanced Server share, cannot be viewed correctly from Windows clients. This problem occurs if ESTIMATE_FILESIZE = 1 is defined under ODS-2 section in PWRK$COMMONROOT:PWRK.INI file. This problem was also seen for other HTML file formats.

Solution:

Remove ESTIMATE_FILESIZE = 1 under ODS-2 section from PWRK$COMMONROOT:PWRK.INI file.

13.4.2 Limitation Copying Indexed Files

Problem:

An RMS indexed file cannot be copied to the Windows clients using Advanced Server. Typically, the file copy will fail due to a network timeout if the file size is greater than 1GB (actual file size will vary). This problem occurs when Advanced Server tries to determine the exact Windows file size by reading the entire file. The client's copy request times out before the file size can be determined.

Solution:

Use stream, stream_lf, or variable length file formats with a sequential file organization.

Alternatively, you can add ESTIMATE_FILESIZE = 1 to the [ODS2] section of the PWRK$COMMON:PWRK.INI file and restart Advanced Server. If Advanced server is enabled to estimate file sizes, the file copy will be successful. However, the copied file will include extra bytes appended at the end of the file after the exact file size.

Before using ESTIMATE_FILESIZE = 1, make sure that the application which reads the indexed file can remove or ignore the extra bytes appended at the end of the file.

13.4.3 The User Cannot Access File Names With Dot and Without Extension

Problem:

Files that contains a dot "." in their names are not accessible from the PC when the extension is removed from DCL on OpenVMS.

A file created from a PC with a name like "a.b.txt" (2 dots) would result as "a^.b.txt;1" on Advanced Server share. When this file is renamed from DCL on OpenVMS, to remove the "TXT" extension, it results in "a^.b.;1". After the file was renamed, it may not be possible for a user to access that file from the PC.

When you try to open the file with notepad, the error seen on PC would appear like this.

```
   "(<)drive:>\<file <>",
 Do you want to create a new file ?"
```

If you click YES, Notepad may get you a second file called "a.b;1" on OpenVMS, which masks the original.

If you try to open the file with Wordpad, you may see the following error:

```
   "<drive:>\<file>" Cannot find this file.
   "Please verify that the correct path and file are given."
```

Solution:

1. Avoid renaming files, which were created from a PC on an Advanced Server share, from DCL on OpenVMS. You could rename such files from PC.

2. If you wish to rename files, remove extension from DCL on OpenVMS. Please make sure the renamed file does NOT contain more than one dot "." in the file name.

13.4.4 Advanced Server May Issue Incorrect BlobCache Warning Messages

Problem:

Sometimes the Advanced Server will incorrectly report that the sum of the databases has exceeded the recommended maximum percentage of data cache size, indicating that the cache size should be increased, when the cache size may not need to be increased.

Solution:

Both the error and warning messages may be safely ignored even if the stated percentage approaches 100%. The data cache may behave inefficiently as the percentages grow larger, especially if the percentage indicated in the error messages is well over 50%, but the server will continue to perform properly. Any observed drop in data cache performance can indicate that its size should be increased if possible.

13.4.5 Advanced Server Supports a Maximum Path Length of 512 Characters

The Advanced Server for OpenVMS supports a maximum OpenVMS physical path length of 512 characters. Though unlikely, this limitation may limit the length of a file name that can be created by a file server client. ODS-5 disk volumes can support file names of up to 243 characters in length.

The OpenVMS physical path length includes all the characters necessary to represent the fully specified OpenVMS device, directory path, and file name. For example, if "MyShare" is an Advanced Server share defined with the OpenVMS directory specification "Users$:[Users.Mine]," and the Users$ device resolves to "1DKA100:," then the fully specified OpenVMS physical path used to access file "MyFile.Txt" in the top level directory of share "MyShare" is the following path (32 characters in length):

1DKA100:[Users.Mine]MyFile.Txt

13.4.6 Advanced Server Does Not Support File Access from Macintosh Clients

Files created on the Advanced Server system by Macintosh clients (using the PATHWORKS for Macintosh server) cannot be open and read by Advanced Server clients.

13.4.7 Premature Disk Full Conditions

Problem:

The file server may receive a disk full message when thousands of free blocks remain on the device, because the file server's open file cache holds newly created or extended files open for about five seconds after the client closes them. Because files are allocated in extent-size chunks, that space is unavailable for other operations until the files are actually closed.

Solution:

To avoid these messages, make sure that at least 1 MB of free space is available on the device or the container file at all times.

If this does not work, add the following to the PWRK$COMMON:PWRK.INI file to lower the default file extent quantity. Create this file if necessary. Note, however, that this will significantly affect the performance of file uploading.

```
[ODS2]
    create_quantity = 1
    extend_quantity = 1
```

13.4.8 DECram Performance Problem

Problem:

DECram performance is inadequate when the disk is mounted using the /NOCACHE qualifier.

Solution:

Do not use the /NOCACHE qualifier when mounting a RAM disk that the Advanced Server will access. If you omit the /NOCACHE qualifier from the MOUNT command, the XQP+ cache is enabled for the RAM disk, allowing the internal caches to operate effectively.

13.4.9 Access Denied to Files Restored from Backup of Another System

Problem:

When a directory is backed up from one system and restored on another, stale group ACEs may still be attached to the files that are restored. These ACEs may cause the file server to deny access to users even though they have access to the parent directory.

Solution:

To correct the problem, delete the ACLs on the files after they are restored, using the following DCL command:

```
$ SET ACL/DELETE filename
```

13.4.10 "XCCB Not in Use" Errors in LMMCP Log File

Problem:

When an attempt is made to exceed the maximum number of sessions that the server is configured for, the operation fails (as expected) and the following error message appears in the PWRK$LMMCP_*nodename*.LOG file:

```
...specified XCCB not in use!
```

Solution:

You can ignore this error message.

13.4.11 You Cannot Map to an OpenVMS Search List

Problem:

You cannot map a share to a search list. In other words, you cannot map to devices or directories using such a search list name as the path device or directory name.

Solution:

Do not use a search list as the path device name. You must map to a specific device.

13.4.12 Do Not Use "DEV" as a Share Name

The name "DEV" is reserved. Do not specify "DEV" as the name of a share.

13.4.13 Limit to Number of Directory Levels

Problem:

The number of levels of directories (nested directories) that can be created in a directory tree are limited. Attempts to create a subdirectory too deep in the directory tree will fail. For example, tests have resulted in failures on ODS-5 volumes when attempting to create subdirectories approximately 60 levels deep.

Solution:

The problem occurs because for each nested directory created, superflous ACEs are inherited from the parent directory's ACL. As each new directory is created deeper in the directory structure, the ACL increases in size until it reaches a limit. Two workarounds are:

1. Use a Windows NT client to view the security permissions on the directory in which the failure occurred, and then select OK. No actual change to security is necessary — just use Windows NT to view security permissions for the directory, preserving the exact security that already exists. Windows NT automatically removes duplicate ACEs.

2. Change the STORE_SECURITY_ACES parameter in the OpenVMS Registry from its default value to disable propagation of security information to files and directories created in directories. Refer to the *HP Advanced Server for OpenVMS Server Administrator's Guide* for more information.

13.4.14 Server Language Restrictions

This section describes restrictions related to the various languages and ISO-8859 extended character sets that can be configured on the Advanced Server. For related restrictions, see Section 13.10.4.3, Problems Using Certain Characters for a Member Server Computer Name or Cluster Alias Name, and Section 13.3.3, The ^ Character Does Not Get Encoded in Parameter Values.

Note

You can configure any one of over 40 languages. For an up-to-date list indicating which of the 40 languages are officially supported by the Advanced Server, refer to the Software Product Description (SPD).

13.4.14.1 Entering Extended Character Set Characters in Single-Byte ISO-8859 Form Can Result With Wrong Data

Problem:

If the Advanced Server and OpenVMS are set to different languages, and you enter extended character set characters in their raw form (single-byte ISO-8959 value), OpenVMS will uppercase the extended character set characters incorrectly, and the wrong data will be provided to the Advanced Server.

Solution:

When you enter the single-byte ISO-8859 characters, enclose them in quotation marks.

13.4.14.2 Relative and Indexed Files with Names Containing Extended Character Set Characters Are Inaccessible

Problem:

Relative or indexed files stored on the server, whose names include extended character set characters (other than those supported by the default character set, ISO-8859-1), are inaccessible by clients of the server.

Solution:

Rename these files manually from OpenVMS so that the names do not include extended character set characters.

13.4.15 File Size Restriction

The maximum size of a file that can be handled by the Advanced Server for OpenVMS is 4 GBs. As documented in Section 7.3.1, prior to Version 7.3A of the Advanced Server for OpenVMS, the maximum size restriction was 2 GBs.

13.4.16 Alias File Names Not Supported on NFS Shares

Problem:

On a shared NFS volume, the server will be unable to create alias file names for files whose names are not compatible with MS-DOS or that contain extended character set characters with code point values of 128 through 255 (hexadecimal 80 through FF).

Solution:

Alias file name support applies only to ODS-2 and ODS-5 volumes. The files can be accessed only by referring to the original names.

13.4.17 Case Sensitivity

OpenVMS Alpha Version 7.3-1 and later supports the option of case-sensitive lookups of file names (where tools and applications can distinguish among file name specifications containing the same alphabetic characters that differ in case only). Case-blind file name lookup is the default behavior for OpenVMS and the Advanced Server. As reported in the *OpenVMS Alpha Version 7.3-1 Release Notes*, case-sensitive file name lookup is a very significant change in behavior and cannot be expected to work seamlessly with existing applications. HP recommends that you do not enable this feature on systems that run the Advanced Server. Sharing directories that contain files whose names are identical except for case is unsupported and will result in unexpected behavior.

Likewise, command line processing of case-sensitive commands might result in unexpected behavior.

For more information on case sensitivity in file operations, refer to the OpenVMS release notes and the *OpenVMS Version 7.x New Features and Documentation Overview Manual*.

13.4.18 Restriction on Roaming User Profiles

Problem:

Usage of roaming user profiles that will be stored on a Advanced Server for OpenVMS share on an ODS-2 disk is limited by the restrictions imposed by the ODS-2 disk structure. Names of folders (such as desktop folder or subfolders created in the My Documents folder) to be stored at the profile path destination must not exceed 32 characters in length; otherwise, the server's attempt to store the folder name as a directory on the share will fail. Folder names that include spaces or nonalphanumeric characters (characters not included in the standard character sets) impose further limits on the length of the name: each such character takes up four characters on the volume.

Solution:

If the structure of the roaming user profiles requires support of folder names exceeding 32 characters in length, HP recommends that you take advantage of the ODS-5 disk volume structure and directory features. For a related restriction, see Section 13.5.6.

13.5 User Interface Restrictions

This section describes restrictions in the management interfaces.

13.5.1 Expired Password Cannot be Changed During Admin Login

Problem:

When you try to login using the ADMINISTER command and the credentials of a Windows 2003 domain user, expired password cannot be changed during login. This problem occurs if the Domain Controllers are running Windows 2003 with SP1. If you try to change the password, the ADMINISTER command will report the following error:

```
"%PWRK-E-PSWCHERR, error changing password for user "NEWUSER2" on domain
"<W2K3DOMAINNAME>"
-LM-E-ERROR_ACCESS_DE, insufficient privileges for attempted operation"
```

Solution:

The solution is to change the password through Windows "Change Password" applet.

Another workaround is, on Windows 2003 domain controllers, execute the following command at the DOS prompt and then restart the server:

```
net localgroup "pre-windows 2000 compatible access" "anonymous logon" /add
```

On Windows 2000 domain controllers, execute the following command at the DOS prompt and then restart the server:

```
 net localgroup "pre-windows 2000 compatible access" everyone /add
```

13.5.2 Inconsistent Results from ADMIN/SHOW FILE Command

The ADMINISTER/SHOW FILE command will not give accurate results for directory trees, when the directory tree resides on an NT server. The inaccurate results always take the form of an extra character appended to an otherwise correct file/directory name. If the file is a directory and the /subdirectory and /permissions switches are specified, one or more instances of the following error will be observed:

```
%PWRK-E-ERRGETFILEACC, error getting access information for <directory name>
```

This problem will be fixed in a future release.

13.5.3 Configuration Manager (ADMIN/CONFIG) Requires That the Registry Server Be Running

Problem:

Before invoking the Configuration Manager with the ADMINISTER/CONFIGURATION command, make sure the OpenVMS Registry Server is running. If the Registry is not running, you will not be allowed to start the Configuration Manager. A message will notify you of this.

Solution:

HP recommends that you have the Registry Server started automatically with system startup. If you need to start the Registry Server manually, enter the following command at the DCL prompt, as shown:

```
$ @SYS$STARTUP:REG$STARTUP
```

13.5.4 When a User Account Is Created Without a Password, an Encrypted Password is Supplied

Problem:

If you use the ADMINISTER command COPY USER to create a new user account, and you omit the /PASSWORD qualifier, the new user account is created with an encrypted password.

Solution:

Use the MODIFY USER command to set the password for the new user account.

13.5.5 Server Acting as a BDC Will Not Allow Changes to Share Permissions Until Synchronized with PDC

Problem:

If a new user or group is added to the domain, an attempt to set permissions on an object (for example, a file) for the newly added user or group may result in an error message, such as:

```
%PWRK-E-ERRMODSHAREPERM, error modifying permissions for share "QUIP"
-LM-E-NOTALLMAPPED, one or more user or group names were not found
```

Solution:

Synchronize the BDC with the PDC before adding permissions for the new user or group.

13.5.6 Directory File (Folder) Name Length Restrictions on ODS-2 Disk Volumes

Problem:

The length of a directory file (or folder) name is limited to 39 characters on ODS-2 disk volumes. The length is further restricted if the name includes dots, spaces, or other characters that cannot be used in ODS-2 file names. In general, each instance of these characters reduces the maximum length by four characters. Regular file names (nonfolder names) can have up to 77 characters in the client file name, unless the name includes dots, spaces, or other non-OpenVMS characters.

Solution:

Limit the length of directory and file names accordingly on ODS-2 disk volumes, or either move the share to an ODS-5 disk volume or convert the ODS-2 volume to ODS-5 to use the extended file naming capabilities of ODS-5 disk volumes. Upgrade the file server to Advanced Server for OpenVMS and use the extended file naming capabilities of ODS-5 disk volumes. For a related restriction, see Section 13.4.18, Restriction on Roaming User Profiles.

13.5.7 Alias Name Not in Browse List When Using DECnet Transport Only

Problem:

In an OpenVMS Cluster, the Advanced Server alias name is not seen by the browser if DECnet is the only transport configured. The ADMINISTER SHOW COMPUTER display shows the alias, but it marks it as unavailable. Although the alias is marked as unavailable, you can still connect to shares using the alias name.

Solution:

Use the Advanced Server Configuration Manager (ADMINISTER/CONFIGURE command) to configure the Advanced Server to use either TCP/IP or NetBEUI in addition to DECnet.

13.5.8 Mouse Selection Highlights Entire Screen

Problem:

Under certain circumstances, the entire screen is highlighted when you select a button using the mouse input device.

Solution:

When this occurs, press Ctrl/W key to clear the screen, then select the button again.

13.5.9 Advanced Server Unable to Resolve Job Logical Translation as Part of a File Specification

Problem:

If you use a job logical as part of a file specification for any ADMINISTER command, the operation will fail. The file server does not support using a job logical as part of a file specification. Using a job logical as part of a file specification to an ADMINISTER command results in an error, where the error message may not be explicit about the cause of the problem.

For example, the following command will fail with an "insufficient privileges" error message.

```
$ ADMIN SAVE EVENT SYS$LOGIN:EVT_BACKUP.EVT
```

The source of the problem, however, is not the privilege level of the user; rather, it is the use of the SYS$LOGIN job logical.

Solution:

Do not use job logicals in file specifications in the ADMINISTER command line.

13.5.10 Server Description (SrvComment) Restriction

The ADMINISTER SET COMPUTER/DESCRIPTION command accepts a maximum string length of 256 characters for the server description. However, some file servers, including the Advanced Server for OpenVMS file server, allow a limit of 48 characters for the string.

If you attempt to set the Advanced Server description to a string that is over 48 characters in length, your description string is not accepted, and is set to the default string instead.

13.5.11 Cannot Delete Stale Host Mappings

Problem:

If no server domain controller for a trusted domain is accessible by the Advanced Server, attempts to remove host mappings to the trusted domain's users with the ADMINISTER REMOVE HOSTMAP command fail, unless you specify the /HOSTUSER qualifier to remove all user account mappings to a specified OpenVMS user name. The following example shows what happens when specifying the REMOVE HOSTMAP command to remove a host mapping to user account THEO in the trusted domain KANSAS:

```
LANDOFOZ\\TINMAN> REMOVE HOSTMAP KANSAS\THEO
%PWRK-E-ERRGETUSRGRP, error getting information for user or group
"KANSAS\THEO"
-PWRK-E-USRGRPNOTFND, the user or group cannot be found
```

Solution:

To delete the host mapping, specify the /HOSTUSER qualifier to delete all mappings to the OpenVMS user account with the specified user name, as in the following example:

```
LANDOFOZ\\TINMAN> REMOVE HOSTMAP KANSAS\THEO/HOSTUSER
%PWRK-S-HOSTMAPSREM, mappings to host user "THEO" removed
```

13.5.12 SHOW SERVICES Command Fails When Directed to Windows NT, Windows 2000, or Windows XP

Problem:

When you issue the SHOW SERVICES command to display all the services on a Windows 2000, Windows XP, or Windows NT system (Service Pack 4 or later), the command fails, as in the following example:

```
LANDOFOZ\\TINMAN> SHOW SERVICES /SERVER=WNTD23
 %PWRK-E-ERRGETSVCS, error getting service information
 -LM-E-ERROR_MORE_DATA, additional data is available
```

The SHOW SERVICES command does work if you specify a specific service for which information should be displayed (such as SHOW SERVICES ALERTER). Note, however, when you specify a service name, it must be 15 characters or less, or else you receive an error as in the following example:

```
LANDOFOZ\\TINMAN> SHOW SERVICES "CARBON_COPY_SCHEDULER"\SERVER=WNTD23
%PWRK-E-INVSVCNAME, invalid service name "CARBON_COPY_SCHEDULER"
-PWRK-E-VALLENGTH, a service name must be 1 to 15 characters in length
```

In addition, the command fails if the service name includes spaces, as in the following example:

```
LANDOFOZ\\TINMAN> SHOW SERVICE "Carbon Copy 32" /SERVER=WNTD23
%PWRK-E-ERRGETSVC, error getting information for service
"Carbon Copy 32"
-LM-E-NERR_SERVICENOT, the service has not been started
```

Solution:

This problem is due to the specified Windows NT software. You can use the SHOW SERVICES command successfully with earlier versions of Windows NT (prior to Service Pack 4) and to any PATHWORKS or Advanced Server for OpenVMS servers as well as Advanced Server for UNIX (*Tru64* UNIX) servers. You can use the SHOW SERVICES command successfully on any Windows system if you specify a specific service in the command line. The service name specified should be 15 characters or less in length, and should not include spaces. If the service name does include spaces, you can omit the spaces when you specify the name in the command line, as in the following example showing how to display information for the service named "Carbon Copy 32" on a Windows NT Server:

```
LANDOFOZ\\TINMAN> SHOW SERVICES "CarbonCopy32" /SERVER=WNTD23
```

13.5.13 Specifying a User Password Shorter Than the Minimum Length Produces Unexpected Error Message

Problem:

When you specify a password for a user account, such as when adding a user account or changing the user password, if the password is shorter than the minimum length, you get a different error message than was returned in previous versions of the Advanced Server. The following is an example showing a message returned with the current version of the Advanced Server:

```
LANDOFOZ\\TINMAN> ADD USER SCARECROW/PASSWORD=PWD_4 -
_LANDOFOZ\\TINMAN> /FLAGS=NOPWDEXPIRED
%PWRK-E-ERRADDUSER, error adding user "SCARECROW"
-LM-E-NERR_BADPASSWOR, the password parameter is invalid
```

Previous versions return other messages.

Solution:

To display the default minimum password length, use the SHOW ACCOUNT POLICY command. Use the SET ACCOUNT POLICY/PASSWORD_POLICY command to modify the minimum length.

13.5.14 Local Group Names Limited to 20 Characters in Length

Problem:

With Windows NT, the maximum length of local group names is 256 characters. The ADMINISTER user interface allows a maximum of 20 characters. If a local group name is created from Windows NT with a length exceeding 20 characters, and you try to execute an ADMINISTER command with that name specified in the command line, you will see an error message such as the following:

```
%PWRK-E-INVUSRGRPNAME, invalid user or group name
"Local Group CAD-Admin"
-PWRK-E-VALLENGTH, a name must be 1 to 20 characters in length
```

Solution:

For managing local group names exceeding 20 characters in length, use the Windows NT management tools.

13.5.15 ADMINISTER Commands Cannot Act on Event Log Files of Remote Windows 2000 or Windows NT SP6 Servers

Problem:

You cannot use the ADMINISTER SHOW EVENTS, CLEAR EVENTS, and SAVE EVENTS commands to display, clear, or save the contents of an event log file located on a remote Windows 2000 or Windows NT server with Service Pack 6. In other words, these commands do not work when the default server is a Windows 2000 or Windows NT server (using the /SERVER qualifier with the command, or after using the SET ADMINISTRATION command, to set the remote server as the default). The commands also fail when using the /COMPUTER qualifier. You will see errors such as the following examples:

```
LANDOFOZ\\TINMAN> SET ADMINISTRATION/SERVER=WIZ2000
%PWRK-S-ADMSET, now administering domain "LANDOFOZ", server "WIZ2000"
LANDOFOZ\\WIZ2000> SHOW EVENTS
%PWRK-E-EVTERROPEN, error opening event log SYSTEM at server \\WIZ2000
-LM-E-RPC_X_BAD_STUB_, The stub received bad data
   .
   .
   .
LANDOFOZ\\TINMAN> SHOW EVENTS /COMPUTER=WIZ2000 /TYPE=APP
%PWRK-I-EVTNOREC, Application Event Log on server "WIZ2000" has no
records
   .
   .
   .
LANDOFOZ\\TINMAN> SAVE EVENTS /SERVER=WIZ2000 /TYPE=SECURITY
   .
   .
   .
%LM-E-ERROR_BAD_PATHN, bad pathname
```

The commands work successfully against a remote HP Advanced Server.

Solution:

Use the Windows NT or Windows 2000 server's local tools to show, clear, or save its events.

13.5.16 ADMINISTER SET PASSWORD Command Fails If the PDC is Windows 2000 or Windows XP

Problem:

If the primary domain controller (PDC) is a Windows 2000 or Windows XP system, do not use the ADMINISTER SET PASSWORD command to change the password for your domain user account. If you do, you will not be validated; you will not be able to log on to the domain again afterward. Neither can you set the password when logging on to the domain after the password has expired (you are prompted for the new password, but the password you enter will not be accepted).

Solution:

To change your domain user account password in a domain where the PDC is Windows 2000 or Windows XP, use the ADMINISTER MODIFY USER /PASSWORD command or the DCL SET PASSWORD command.

13.5.17 SHOW COMPUTER Command Might Fail with -LM-E-NERR_SERVICENOT Error

Problem:

When the master browser is not the PDC in the domain, the ADMINISTER SHOW COMPUTER command might fail with the following error messages:

```
%PWRK-E-ERRGETCOMP, error getting computer information from
"\\pdc-name"
-LM-E-NERR_SERVICENOT, the service has not been started
```

Solution:

You can use the SHOW COMPUTER/TYPE=DOMAIN_MEMBERS, which will display only those computers that are members of the domain (that is, in the server's SAM database), excluding those that are listed by the Computer Browser service as active in the domain.

To regain full functionality of the SHOW COMPUTER command, start the Browser service on the PDC.

13.6 Windows 2000, Windows 2003 and Windows XP Related Restrictions

The first section to follow describes restrictions that apply to Windows 2000, Windows 2003 and Windows XP, the next section describes restrictions related to support of Windows 2000 only, and the third section describes restrictions related to Windows XP only. Other related restrictions are documented in Section 13.5.15, ADMINISTER Commands Cannot Act on Event Log Files of Remote Windows 2000 or Windows NT SP6 Servers, and Section 13.5.16, ADMINISTER SET PASSWORD Command Fails If the PDC is Windows 2000 or Windows XP.

13.6.1 Restrictions Applying to Windows 2000, Windows 2003 and Windows XP

This section describes restrictions that apply to both Windows 2000 and Windows XP.

13.6.1.1 Problem When Ports 137, 138 and 139 are Blocked

Problem:

When Windows clients connect to Advanced Server, an error similar to the following will be seen:

```
"The mapped network drive could not be created because the following error has
occurred:
The specified network name is no longer available."
```

There is a delay of 45-60 seconds before the error occurs.

This error occurs if a firewall is enabled on Windows clients and the ports 137, 138 and 139 are blocked.

Solution:

If you are using server based licenses only, then the uncomment the following line in SYS$STARTUP:PWRK$LICENSE_R_STARTUP.COM file:

```
$! Define_sys  PWRK$Lr_Disable_Client_Ping  1      ! Disable Client
license checking
```

After uncommenting this line, save the file and restart Advanced Server.

If you are using client based licenses, then do not block the ports 137, 138 and 139 on windows clients. If you are using the windows firewall, you can check the box against "File and Printer sharing" in exceptions section under windows firewall to enable these ports.

13.6.1.2 Unable to Establish Trust With Windows 2003 Domain

Problem:

On a Windows 2003 PDC emulator, when you try to establish a trust between a domain where Advanced Server is configured as PDC and an Active Directory domain with a Windows Server 2003 PDC emulator, following error might be encountered:

```
"The Local Security Authority is unable to obtain an RPC connection to the
domain controller <DCname>. Please check that the name can be resolved and
that the server is available."
```

The same error is reported by the Windows Server 2003 system when establishing a trust to a domain with an NT V4 PDC.

Solution:

Execute the following command at the DOS prompt on Windows server and then add the trust:

```
net use \\AdvSrv\ipc$ /user:"" ""
```

"AdvSrv" can be the computer name, fully qualified hostname, or IP address of the Advanced Server.

13.6.1.3 Unable to Establish Trust Using ADMINISTER ADD TRUST/TRUSTED <w2k3domainname> Command

Problem:

Using ADMINISTER command `ADMINISTER ADD TRUST/TRUSTED <w2k3domainname>`, when you try to establish trust between Advanced Server domain and a Windows 2003 domain, you will encounter the following error:

```
"%PWRK-E-ERRADDTRUST, error adding trust between domains "<W2K3DOMAIN
NAME>" and "<ASDOMAINNAME>"
-LM-E-ERROR_ACCESS_DE, insufficient privileges for attempted operation"
```

Solution:

First establish incoming trust on Windows 2003 PDC emulator and remember the password you supply while establishing the incoming trust. After this, on Advanced Server execute the command `ADMINISTER ADD TRUST/TRUSTED <w2k3domainname>`. When it prompts for password, supply the password you had provided while establishing incoming trust on Windows 2003 PDC emulator.

Another workaround is, on Windows 2003 PDC emulator, execute the following command at the DOS prompt and then restart the server:

```
net localgroup "pre-windows 2000 compatible access" "anonymous logon" /add
```

13.6.1.4 Windows 2000 and Windows XP Clients Unable to Rejoin Domain

Problem:

A Windows 2000 or Windows XP client cannot rejoin the domain of the Advanced Server for OpenVMS unless you first delete the computer account for that client. You will see an "access denied" message.

Solution:

Either delete the computer account prior to having the client rejoin the domain, or manually create the computer account on the server.

13.6.2 Restrictions Applying to Windows 2000 Only

This section describes restrictions related specifically to support of Windows 2000.

13.6.2.1 Cannot Establish a Trust with a Windows 2000 Domain By Means of Remote Administration

Problem:

The Windows 2000 Server does not allow trusts to be added from a non-Windows 2000 computer. Therefore, you cannot add a trust to a Windows 2000 domain by means of remote administration of that domain (such as after using the ADMINISTER SET ADMINISTRATION command to specify the Windows 2000 domain, or after logging on to the Windows 2000 domain, or using the /DOMAIN qualifier in the ADD TRUST command).

Solution:

To add a trust to a Windows 2000 domain, do the operations required on the Windows 2000 domain directly from a Windows 2000 Server in that domain. For the operations required on the Advanced Server domain to establish the trust, you can still use the ADD TRUST command, directly or remotely.

For example, assume users of your Advanced Server domain LANDOFOZ want to access resources in Windows 2000 domain TOPEKA. To set up a trust relationship so that TOPEKA trusts LANDOFOZ domain users:

1. Log on to domain LANDOFOZ and enter the following command to add TOPEKA to the list of domains permitted to trust LANDOFOZ:

    ```
    LANDOFOZ\\TINMAN> ADD TRUST TOPEKA/PERMITTED
    ```

2. Then, use the Windows 2000 facilities to make LANDOFOZ a trusted domain for TOPEKA.

13.6.2.2 Restricted Anonymous Access on Windows 2000 Server Affects External Authentication

Problem:

When a Windows 2000 Server has the registry value for RestrictAnonymous set to 2, it will not validate authentication requests from domain controllers in another domain trusted by the Windows 2000 server's domain. In other words, when a user with an account in the Windows 2000 domain attempts to log in, using external authentication, to the OpenVMS system in a domain trusted by the Windows 2000 Server, the Advanced Server for OpenVMS or PATHWORKS for OpenVMS (Advanced Server) server running on that OpenVMS system requests the Windows 2000 Server to authenticate that user, but the Windows 2000 Server will fail to do so. Additional limitations will result, such as the SET PASSWORD command at the OpenVMS DCL prompt failing to work for an externally authenticated user when that command is sent to the Windows 2000 Server. However, the Advanced Server ADMINISTER SET PASSWORD command will work.

The RestrictAnonymous value in the registry appears as follows:

```
Key: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\LSA
Value Name: RestrictAnonymous
Data Type: REG_DWORD
Value: 2
```

Solution:

If acceptable for your security environment, enable anonymous access at the Windows 2000 Server (registry value of RestrictAnonymous set to 0). You can avoid the restriction described in this note by setting the registry value of RestrictAnonymous to 1. Note that for the new value (or any other new registry value) to take effect, the PDC needs to be rebooted.

For more information on the restriction when RestrictAnonymous is set to 2, see the Microsoft article at the following location:

```
http://support.microsoft.com/support/kb/articles/q246/2/61.asp
```

13.6.3 Restrictions Applying to Windows XP Only

This section describes restrictions related specifically to support of Windows XP.

13.6.3.1 Enabling a Windows XP Client to Join and Log On to a Domain

Problem:

In some situations a Windows XP client is unable to join the server's domain, or a Windows XP user cannot log on to the domain.

Solution:

To enable a Windows XP client to join the server's domain, or a Windows XP user to log on to the domain:

1. Disable the client's certificate autoenrollment policy

2. Set the client's REQUIRESIGNORSEAL registry value to 0

3. Reboot the client

13.6.3.2 Windows XP Client Stays in Computer List Even After Being Removed from Domain

Problem:

After a Windows XP client is removed from the domain of the Advanced Server for OpenVMS, the ADMINISTER SHOW COMPUTERS command still lists the client as available to the network. For example, if you issue the SHOW COMPUTERS command after removing the Windows XP client TOTOXP, the computer type display symbol still indicates the computer is available to the network; that is, the [WS] symbol is shown in uppercase as in the following example:

```
Computer        Type                            Description
--------------  --------------------------      ----------------------
[WS] TOTOXP     Windows NT 5.1 Workstation
[PD] TINTIN     OpenVMS (NT 4.0) Primary         Advanced Server for
                                                 OpenVMS

  Total of 2 computers
```

The [WS] symbol displayed should be lowercase, indicating the computer is not available to the network.

13.7 Printing/Print Management Restrictions

This section describes restrictions in printing or managing print queues.

13.7.1 Restriction for Print Share Names with Unicode Extended Characters

Problem:

OpenVMS queue names support any uppercase and lowercase letters, digits, the underscore (_), and dollar sign ($). When you create a print share on the Advanced Server, specifying Unicode characters other than the above-listed supported characters (specified in the format ^U*xxxx*, where *xxxx* is the 16-bit code for the character), or specifying other characters that OpenVMS does not support for queue names, the Advanced Server creates an OpenVMS queue using the standard ODS-2 format for these characters: _ _*XX*, where *XX* is the 8-bit code in the server character set.

Solution:

OpenVMS restricts the length of queue names to 31 characters. Because the Advanced Server must use the standard ODS-2 four-character substitution in the queue name for each unsupported character in the print share name, restrict the length of Advanced Server print share names accordingly. For example, seven characters is the maximum length for a print share name consisting entirely of unsupported characters.

13.7.2 Cannot Rename Print Share or Print Queue

Problem:

You cannot rename a print share or print queue that is located on the Advanced Server. If you use Windows NT to try to rename a shared printer that is defined on the Advanced Server, the printer name will revert to the original name. No error messages are displayed. Likewise, the Advanced Server ADMINISTER command-line interface as well as OpenVMS do not allow renaming of print shares or print queues.

Solution:

To rename a shared printer or a print queue, you need to delete it and create it again with the new name.

13.7.3 Cannot Move Print Job Position In Queue from Client

Problem:

If the user of a client computer attempts to use the Print Manager to move a print job to a different position in the print queue, the operation fails.

Solution:

Use the ADMINISTER command SET PRINT JOB to move the print job within the print queue.

13.7.4 ADMINISTER REMOVE PRINT QUEUE Fails to Delete a Routing Print Queue

Problem:

If you attempt to delete an Advanced Server print queue using the ADMINISTER command REMOVE PRINT QUEUE, the command fails with the following error message:

```
%PWRK-E-QUEGENERR, error removing print queue "queue-name"
at server "\server-name"
```

```
%PWRK-I-QUENOTPW, This queue may not have been created by Advanced
Server
```

The second message is misleading — the print queue may have been created using the Advanced Server. The routing queue is not deleted if it has been defined to print to a print queue that is set up to print to a virtual port (such as an LTA device).

Solution:

Use the OpenVMS DCL command DELETE/QUEUE to delete the print queue.

13.7.5 Client Cannot Purge Print Queues

Problem:

Client platforms, such as Windows NT and Windows 95, include a function to purge the print queue of print jobs in their print manager. This function fails to purge the print jobs in the queue on an Advanced Server file server. If a client user logged on with sufficient privileges to purge the print queue (full or manage documents privilege) attempts to purge the print queue, an error message is returned indicating insufficient privileges to perform the operation.

Solution:

The client user can remove the jobs from the queue by selecting with the mouse all of the jobs in the queue and then using the delete key.

13.7.6 Cannot See Print Job Name from Client

Problem:

Client computers do not display print job names.

Print jobs submitted from client computers are not displayed from the Print Manager with the print job name.

Solution:

This is a restriction of the Advanced Server. By enabling and using Windows NT-style printer management, this restriction is removed.

13.7.7 Windows NT Print Manager Fails to Display Advanced Server Printers

Problem:

When you attempt to display the printers on the Advanced Server from the Windows NT server administration Print Manager, using the Server Viewer, you will not see the printers offered by the Advanced Server.

Solution:

Display the list of printers using the Advanced Server ADMINISTER command SHOW PRINTERS, or enable Windows NT-style printer management.

13.7.8 Windows NT Printer Management Restrictions

The following restrictions apply to the Windows NT management of Advanced Server shared printers:

- With Windows NT printer management enabled, HP recommends managing printers defined on the Advanced Server only from Windows NT. In specific, do not use the following ADMINISTER commands:

  - ADD SHARE/PRINT

  - REMOVE PRINT QUEUE

  - SET PRINT QUEUE

  You can still use the following ADMINISTER commands, and all other ADMINISTER commands not related directly to printer management:

      ADD PRINT QUEUE
      CONTINUE PRINT QUEUE
      PAUSE PRINT QUEUE
      SHOW PRINT QUEUES

- Depending on the processor upon which your Advanced Server runs, the number of printers managed might affect performance of Windows NT printer management actions. HP recommends enabling Windows NT printer management only on servers with fewer than 100 printers. HP has found that with 100 or more printers, actions that require enumerating the printers could take a long time. (Note that for some actions, printer enumeration is not obvious.) Windows NT fails to indicate (with a symbol such as an hourglass) the server is working or busy, causing the printer management window to appear hung.

- If you choose to ignore HP's recommended limit for the number of printers for Windows NT printer management, and your server has approximately 1000 or more printers defined, see Section 3.25, Windows NT Printer Management of Large Numbers of Printers.

- Once you enable Windows NT printing, HP recommends that you do not attempt to disable it (returning to the server's local management style for printers — the ADMINISTER command interface). If you do, the printers will be unusable. You will have to delete all printers and re-add them to make them functional again.

- The length of the name of a Windows NT manageable printer must not exceed 12 characters.

- Advanced Server shared printers cannot be renamed from Windows NT. For more information, see Section 13.7.2, Cannot Rename Print Share or Print Queue.

- To view changes to print jobs, you must select the Refresh item from the View menu for the print queue.

- From a Windows 2000 client, the "Always available" property is not usable for print jobs. Even if you disable this property (under the Advanced tab in the printer properties window), the print job properties will still show the job as always available.

- You cannot adjust the priority setting of Advanced Server printers. This property is normally accessed from the printer's Properties window, under the the Scheduling tab (Windows NT) or under the Advanced tab (Windows 2000 and Windows XP).

- You cannot set the Take Ownership security property (see Section 13.7.9, Ownership/Access Restrictions to Print Share with Group Everyone Set for No Access).

- Upgraded printers (that is, printers or print shares that were already defined on an Advanced Server when Windows NT print management was enabled) cannot be managed with all the management functionality available for printers that were added to the server by Windows NT print services. Note, for example, that you cannot use Windows NT to add an upgraded server shared printer to another workstation.

  To gain full Windows NT printer management functionality for these printers, delete their associated queues and shares, and add the printers using Windows NT print services.

- If you set up printer pooling, the name of the printer cannot be the same as the name of any of the OpenVMS print queues (ports) you select as part of the pool.

- From a Windows XP client, you cannot add users to audit. On attempting to do so, you will get the following error message:

```
Multiple connections to a server by
the same user using more than one username is not allowed.
```

- The printer comment string (in the printer Properties window) is limited to 48 characters.

- Restrictions for ownership/access to a print share with group Everyone set for No Access are documented in Section 13.7.9, Ownership/Access Restrictions to Print Share with Group Everyone Set for No Access.

13.7.9 Ownership/Access Restrictions to Print Share with Group Everyone Set for No Access

Problem:

If you add an Advanced Server shared printer to your local Windows NT workstation, and then use Windows NT to give the printer's built-in group Everyone the No Access permission, you should be able (as the Administrator or owner) to access the printer to change the permissions. However, when you click on the Permissions button in the printer properties window, access is denied. You get the following error message:

```
 Operation could not be completed. Access is denied.
```

This also happens when managing network printers in a pure Windows NT environment.

In addition, you cannot take ownership of the Advanced Server shared printer. If you click on the Ownership button, you receive a message that you do not have permission to view the current owner but you can overwrite the owner. When you choose to overwrite the owner, you receive the following message:

```
Windows NT error 0xc002002e occurred.
```

Because Advanced Server ADMINISTER commands are disabled when Windows NT printer management is enabled, you cannot change the permissions of an Advanced Server shared printer.

For a related restriction, see Section 13.11.2.

Solution:

Delete the shared printer from your local Windows NT workstation. Now, when you access the Permissions button, you get the following message:

```
You do not have access to this printer; only the security tab
will be displayed.
```

You can then change the access permissions of the printer from a Windows NT Server that serves the printer's domain, and then add the printer again to your local workstation.

So, to prevent this problem from occurring with network printers that you plan to manage from your local Windows NT workstation, make sure these printers are not added to that workstation.

13.8 Event Logging Restrictions

This section describes restrictions in the event logging and auditing functions of the Advanced Server.

13.8.1 Event Log Files Fail to Overwrite When Full

Problem:

The server does not support overwriting event messages when the event log files become full. However, the server generates an Alert message indicating the log file is full.

Solution:

You must manually clear the event log files using the ADMINISTER CLEAR EVENTS command.

13.8.2 Unable to Set the Event Logging Setting

Problem:

When you use Windows NT Administration tools to alter the event logging setting, and you choose the option "Do Not Overwrite Events (Clear Log Manually)," the server incorrectly reflects the setting as "overwrite events older than 365 days."

13.9 Browser Restrictions

This section describes restrictions related to the Browser service.

13.9.1 Browser State Is Not Distributed on an OpenVMS Cluster

Problem:

Performing an ADMINISTER STOP SERVICE BROWSER command on one node in an OpenVMS cluster should stop browsers on all nodes of a cluster. However, it only stops the browser service on the node where the command was issued.

Solution:

To stop the browser service on a cluster, issue the STOP SERVICE BROWSER command on each node of the cluster.

13.9.2 Browser Service Stays in START PENDING State

Problem:

If the server that acts as a master browser in your network segment is hidden, the browser service on other Advanced Server for OpenVMS systems (which would act as backup browsers) stays in START PENDING state. A Windows server can be hidden with the registry key "Hidden". Advanced Server for OpenVMS uses the registry key "SRVHIDDEN".

Solution:

Disable the registry key "SRVHIDDEN" or "Hidden" on the master browser. To do this, use: NET CONFIG SERVER /HIDDEN:NO on a Windows system and $ REGUTL SET PARAM *SRVHIDDEN NO on an Advanced Server for OpenVMS system.

13.10 Domain Management Restrictions

This section describes restrictions in managing domains and servers in domains.

13.10.1 A BDC Cannot Be Removed from the Domain If It Has Been Promoted To Be a PDC in Another Domain

Problem:

If you reconfigure a backup domain controller (BDC) from one domain to become a primary domain controller (PDC) of another domain, you cannot remove the computer name from the original domain.

Solution:

Delete the computer name in the original domain database during scheduled downtime of the new PDC.

13.10.2 Additions or Deletions of Trusts on One Cluster Node Are Unknown to the Other Cluster Nodes Until NetLogon Restart

Problem:

If a trust relationship is added or deleted on a cluster node, it will not be known to the other cluster nodes until after they restart NetLogon.

Solution:

After adding or removing a trust relationship to a cluster node, restart the NetLogon service clusterwide by issuing the following commands on any one cluster member running the Advanced Server software:

```
$ ADMINISTER STOP SERVICE NETLOGON
$ ADMINISTER START SERVICE NETLOGON
```

13.10.3 Attempts to Promote BDC Might Fail

Problem:

If you have a Windows NT 4.0 domain controller with Service Pack 4 or later in the domain, you will see the following messages during certain actions, such as synchronization of domain controllers or during promotion of an Advanced Server domain controller to a primary domain controller. These messages are seen on the Advanced Server when it attempts to start the NetLogon service on the Windows NT 4.0 system.

```
-LM-E-UIC_SYSTEM, a system error has occurred
-LM-E-ERROR_ACCESS_DE, insufficient privileges for attempted
 operation
```

When the Windows NT system attempts to start the NetLogon service, the following two event messages might be seen there:

```
Error 005: Access is denied.

Failed to authenticate with \\server-name, a Windows NT
domain controller for domain domain-name
```

The first message is recorded at the Windows NT system as event ID 7023. The second message includes the server and domain names, and is recorded as event ID 3210.

Solution:

Use the Windows NT 4.0 domain controler to initiate the activity (such as synchronization or promotion).

13.10.4 Member Server Role Restrictions

The following restrictions apply to configuring and managing the Advanced Server in the member server role.

13.10.4.1 Restriction Connecting to Member Server Share from External Domain

Problem:

You cannot connect to a member server share from any computer outside the domain, using the same user name and password for both domains.

Solution:

From Windows NT, use the "Connect as..." feature, supplying the user name and domain name.

13.10.4.2 User with "Add Workstations to Domain" Rights Cannot Add Member Server to Domain

Problem:

Any user with administrator privileges can add a BDC, member server, or workstation to a domain. Normally, a user with "Add workstations to domain" rights can add a member server or workstation to a domain (but not a BDC); however, in this release, a user with "Add workstations to domain" rights cannot add an Advanced Server member server to a domain. A message such as the following is displayed when such a user attempts to add an Advanced Server member server to a domain. The PWRK$CONFIG.COM configuration procedure aborts, leaving the user at the OpenVMS DCL prompt.

```
%PWRK-F-MAKEMACH, error creating computer account

PWRK-I-RESTORE, restoring original settings

$
```

Solution:

Make sure the user has administrator privileges and enters the appropriate user name and password when prompted by the configuration procedure. Alternatively, the Administrator can add the account on the primary domain controller.

13.10.4.3 Problems Using Certain Characters for a Member Server Computer Name or Cluster Alias Name

Problem:

When you configure a member server, problems might result if you specify any special ASCII characters in the computer name on a non-clustered server, or in the Advanced Server cluster alias name on a clustered server. The special ASCII characters are those characters other than the following:

A to Z, a to z, 1 to 9, $ (dollar sign), _ (underscore), - (dash)

The - (dash) is considered a special character if it is the first or last character of the name. Note that extended character set characters are not supported in computer names, alias names, domain names, and trusted domain names. Note also that the following characters should never be used in a computer

name, domain name, or cluster alias name, and they will not be allowed by the configuration procedure.

" / \ [ ] : | < > + = ; , ? *

After you configure the server using such names, if you attempt to change these names, the PWRK$CONFIG configuration procedure will fail. The following error will be displayed during the PWRK$CONFIG procedure, where *pdc-name* is the name of the domain's PDC:

```
Confirming domain name with <pdc-name>
Successfully retrieved domain name from <pdc-name> ...

%PWRK-F-MAKEMACH, error creating machine account
```

For related restrictions, see Section 13.3.3, The ^ Character Does Not Get Encoded in Parameter Values, and Section 13.4.14, Server Language Restrictions.

Solution:

You should avoid using these characters if possible. If you have used these characters and later need to change the name, contact HP customer support for detailed instructions to correct the situation.

13.10.4.4 You Must Restore Explicit Host Maps When Changing the Role of a Server to or from a Member Server

Problem:

When you change the role of your server from a BDC to a member server, or vice versa, any explicit host mappings are lost.

Solution:

To prevent the host mappings from being lost, follow these steps prior to making the role change:

1. Display the host mappings, using the ADMINISTER SHOW HOSTMAP command, and record the existing host mappings.

2. Change the server role.

3. Restore the explicit host mappings, using the ADMINISTER ADD HOSTMAP command.

13.10.4.5 You Cannot Add or Modify User and Group Permissions on a Member Server Object Unless Logged Into or Administering the Local Database

Problem:

To modify user and group permissions on member server objects, you must be logged into or administering the member server's local domain. You cannot modify member server objects while logged into the global domain (administering the domainwide security accounts database).

While logged into the member server's local domain, you cannot assign to a domainwide local group (that is, a local group such as System Operators that is part of the domainwide security accounts database) permissions for access to a member server object.

In addition, as already documented in the *Server Administrator's Guide*, to administer global groups and trusts, you must be logged into the global domain.

Solution:

Log in to the appropriate domain to administer the member server objects.

13.10.5 OpenVMS ACME Server Crashes with Access Violation When Advanced Server Is Shut Down

Problem:

The OpenVMS Authentication and Credentials Management Extensions (ACME) subsystem provides authentication and persona-based credential services, and consists of several components, including the ACME server, MSV1_0 ACME agent, and the VMS ACME agent. The Advanced Server for OpenVMS software includes the MSV1_0 ACME agent, which is designed to provide external authentication. The VMS ACME agent is used for acquiring OpenVMS credentials. The MSV1_0 ACME and VMS ACME agents are used by applications and layered products, such as COM for OpenVMS, that use the ACME subsystem to acquire OpenVMS credentials and credentials of network users authenticated by the Advanced Server. On OpenVMS V7.3-1 and earlier systems, these agents are not currently used for external authentication as provided by the Advanced Server for OpenVMS through the traditional OpenVMS LOGINOUT program. (Again, these agents are currently used by COM for OpenVMS.)

If your OpenVMS system is running the ACME server with the MSV1_0 ACME agent loaded, and you shut down the Advanced Server (@SYS$STARTUP:PWRK$SHUTDOWN) without first shutting down the ACME server or shutting down the MSV1_0 ACME agent, then the ACME server might create a process dump (SYS$MANAGER:ACME_SERVER.DMP) when you attempt to shut down the ACME server.

For example, if you shut down Advanced server, but do not shut down the ACME server or shut down the MSV1_0 ACME agent first, you will see information such as the following when you issue the DCL SET SERVER ACME command:

```
$ SHOW SERVER ACME
ACME Information on node QTV26  26-AUG-2002 16:30:21.16
Uptime 2 = 19:04:37

ACME Server id: 1  State: Processing New Requests
   Agents Loaded:      2   Active:       2
   Thread Maximum:     4   Count:        4
   Request Maximum:    8   Count:        0

ACME Agent id: 1  State: Active
   Name: "VMS"
   Image: "DISK1$:[VMS$COMMON.SYSLIB]VMS$VMS_ACMESHR.EXE;1"
   Identification: "VMS ACME built 18-JUL-2002"
   Information: "No requests completed since the last startup"
   Domain of Interpretation: Yes
   Execution Order:      1

ACME Agent id: 2  State: Active
   Name: "MSV1_0"
   Image: "DISK1$:[SYS0.SYSLIB]PWRK$MSV1_0_ACMESHR.EXE;1"
   Identification: "MSV1_0 ACME X-04"
   Information: "MSV1_0 inited, Advanced Server not responding,
retry count=13."
   Domain of Interpretation: Yes
   Execution Order:      2
```

Solution:

You can either ignore this problem, or you can shut down the ACME server or stop the MSV1_0 ACME agent before you shut down the Advanced Server.

To shut down the ACME server before you shut down the Advanced Server, issue the following command:

```
$ SET SERVER ACME/EXIT
```

To stop the ACME agent but leave the OpenVMS ACME agent enabled, issue the following commands:

```
$ SET SERVER ACME/DISABLE
$ SET SERVER ACME/ENABLE=(NAME=VMS)
```

To restart the ACME agent when you restart Advanced Server on a node, issue the following command:

```
$ @SYS$STARTUP:NTA$STARTUP_NT_ACME
```

Or, you can issue these two commands:

```
$ SET SERVER ACME/DISABLE
$ SET SERVER ACME/ENABLE=(NAME=VMS,MSV1_0)
```

13.10.6 Password Lengths Are Limited to 14 Characters

Problem:

Passwords exceeding 14 characters in length can be set on the Advanced Server from a Windows XP, Windows 2000, or modern Windows NT system, but they are not usable thereafter on Advanced Server V7.3A for OpenVMS (or later) servers, either with ADMINISTER commands or external authentication. In other words, although the passwords are stored on the server, they will not be usable and access will be denied.

Solution:

When setting passwords from a remote Windows system, limit their length to 14 characters.

13.10.7 Locked Out Account Does Not Get Replicated by Advanced Server or Windows 2000 Server PDCs

Problem:

In a domain in which the Advanced Server for OpenVMS or a Windows 2000 Server is the PDC, if a user account gets locked out, the status of the locked out account is not replicated to the BDCs. This applies to both Advanced Server and Windows NT BDCs. The locked out user can still access the BDCs.

13.11 Remote Management Restrictions

This section describes restrictions relating to remote management of the Advanced Server for OpenVMS product.

13.11.1 Error When Displaying Advanced Server Domains from a Windows NT Server Manager

Problem:

When using the Windows NT Server Manager to display directory replication information about an Advanced Server, the following error message might be displayed:

```
 The data is invalid
```

Solution:

This error message indicates that an Advanced Server does not support replication.

13.11.2 Windows NT Explorer Error on Attempt to Take Ownership of Shared File or Directory

Problem:

Once all permissions are removed from a shared directory, an administrator, using Windows NT Explorer, is not able to take ownership of the directory or of files in the directory. The following message is displayed:

```
 Windows NT error 0xc002002e occurred.
```

The problem occurs because the Windows NT client sends a request to the Advanced Server that is not supported. The Advanced Server returns an error code to the client. The Windows NT error reported above occurs because Windows NT misinterprets the server error code response.

For a related problem fixed with Advanced Server V7.3 for OpenVMS, see Section 4.3.9. For a related restriction, see Section 13.7.9.

Solution:

Use the Advanced Server ADMINISTER TAKE FILE OWNERSHIP command.

13.12 Transport Restrictions

This section describes restrictions involving transports supported by the server.

13.12.1 DEFZA FDDI Controller Is Not Supported with Advanced Server for OpenVMS

Problem:

The DEFZA FDDI controller is not supported with Advanced Server for OpenVMS.

Solution:

Use the newer DEFTA controller, which is supported and provides better performance.

13.12.2 NETBIOS Fails to Start, Dumps Invalid Media Address

Problem:

If an Advanced Server on a DECnet-Plus system does not have a Phase IV address set up for the circuit to be used by the NETBIOS process, the NETBIOS process fails to start. The NETBIOS log file will include the following error:

```
%NB-F-SIGFAIL, Startup - error initializing ethernet controller
-SYSTEM-F-IVADDR, invalid media address
```

Solution:

When the Advanced Server is running on a system that is running DECnet-Plus, a DECnet Phase IV address must be set, and it must be enabled on the routing circuit of the device that the NETBIOS process will use. For example, if the Advanced Server is running on a system with DECnet-Plus and is going to use the FDDI device FWA0:[2], then in the NCL script SYS$STARTUP:NET$ROUTING_STARTUP.NCL, include the following:

```
SET NODE 0 ROUTING PHASEIV ADDRESS = 13.1012
SET NODE 0 ROUTING PHASEIV PREFIX = 49::
SET NODE 0 ROUTING CIRCUIT FDDI-0 ENABLE PHASEIV ADDRESS = TRUE
SET NODE 0 ROUTING CIRCUIT CSMACD-0 ENABLE PHASEIV ADDRESS = FALSE
```

13.13 OpenVMS Cluster Restrictions

This section describes restrictions involving servers in an OpenVMS Cluster.

13.13.1 Two or More Advanced Servers in an OpenVMS Cluster Must All Be in the Same Subnet

Two or more Advanced Servers in an OpenVMS Cluster must all be in the same TCP/IP subnet. You cannot have multiple Advanced Servers in the same cluster participating in different TCP/IP subnets.

13.13.2 Server Parameter Hidden Causes Browser to Fail to Announce Itself

Problem:

OpenVMS Cluster configurations that were upgraded from PATHWORKS V5 for OpenVMS (LAN Manager) may exhibit the following behavior. With PATHWORKS V5 for OpenVMS (LAN Manager), it is possible to set server configuration parameters in a way that presents the PATHWORKS cluster alias to the clients, but not the names of the individual nodes in the cluster. The configuration settings can be included in the LANMAN.INI file as follows:

- In the [SERVER] section: **srvhidden=yes**

- In the [VMSSERVER] section: **pwrkaliashidden=no**

With the Advanced Server for OpenVMS, these parameters are stored in the OpenVMS Registry as follows:

- Value **Hidden** in registry key
  SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters

- Value **AliasHidden** in registry key
  SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters

---

[2] By default, the server uses the Ethernet device. To designate that the server uses a non-Ethernet device, define a system logical name NETBIOS$DEVICE to point to the device (in this case, to FWA0:).

The settings for these Advanced Server for OpenVMS parameters in the OpenVMS Registry behave differently. The Browser service included with the Advanced Server for OpenVMS interprets the **Hidden** value setting and fails to announce the availability of the browser on the network.

Solution:

HP recommends making sure that the **Hidden** value is not set to "yes" when you start the Advanced Server for OpenVMS.

13.13.3 Using the Windows NT Server Manager to Promote a Clustered BDC

Problem:

When using the Windows NT Server Manager to promote a backup domain controller (BDC), if you select a cluster member name instead of the cluster alias, the operation will fail with the following error message:

```
Error 2249 occurred, this replicant database is outdated,
synchronization is required.
```

The cluster's system event log will include several messages similar to the following message:

```
NET3210, Failed to authenticate with "CLUSTER ALIAS
NAME".
```

Solution:

Use the cluster alias rather than the cluster member name when promoting a BDC.

13.13.4 After Upgrading the Advanced Server, PWRK$CONFIG Must Be Run Before Changing the Cluster State

Problem:

If you are upgrading the Advanced Server from a previous Advanced Server for OpenVMS or PATHWORKS V6 for OpenVMS (Advanced Server) product, and at the same time, you change the cluster state of your server system (from a standalone to a cluster system, or vice versa), PWRK$CONFIG will fail.

Solution:

You can change the cluster state and reconfigure the previous version of the server (before upgrading), or upgrade to V7.3 or higher, and afterward, change the cluster state.

13.13.5 Attempts to Add Multiple User Accounts Might Fail

Problem:

This problem has been seen when the Advanced Server is in an OpenVMS Cluster with members running OpenVMS Version 7.3 systems. Attempts to add multiple user accounts to the domain might fail, such as when an automated process is invoked to add hundreds of users. Error messages such as the following might be seen:

```
%PWRK-E-ERRADDUSER, error adding user "user-name"
```

Solution:

For any OpenVMS Version 7.3 platform in the cluster, do either of the following:

- Turn off the XFC (extended file cache), as recommended in the Readme file for OpenVMS Version 7.3 patch update VMS73_XFC Version 2.0.

- Install at least the following mandatory updates:

    DEC AXPVMS VMS73_XFC Version 2.0
    DEC AXPVMS VMS73_SYS Version 3.0
    DEC AXPVMS VMS73_UPDATE Version 1.0

  For information on the patches to install, refer to the following web site location:
  http://ftp.support.compaq.com/patches/.new/openvms.shtml

13.14 Advanced Server with DEC Rdb (Oracle) Restrictions

This section describes restrictions involving interaction with DEC Rdb (Oracle).

13.14.1 Advanced Server Fails to Start Correctly on Systems Running DEC Rdb (Oracle)

Problem:

Advanced Server for OpenVMS fails to start correctly on systems that are also configured to run Oracle Rdb (Relational Database) software, because of the way that Rdb uses the systemwide login command procedure SYLOGIN.COM and the way that the Advanced Server creates processes.

Solution:

To correct this problem:

1. Remove the following line in the system login procedure SYLOGIN.COM:

   ```
   $ @DECRDB$SETVER.COM
   ```

2. Replace it with the following lines:

   ```
   $ SET NOON
   $ @DECRDB$SETVER.COM
   $ SET ON
   ```

13.15 Miscellaneous Restrictions

This section describes restrictions that do not fall under the categories described in other sections of this chapter.

13.15.1 PWVER ALL Output

Problem:

Starting with Advanced Server Version 7.3A-ECO4, PWVER ALL output would not be able to retrieve image identification and link time for the following I64 external authentication images:

```
PWRK$ACME_MODULE_IA64.EXE
PWRK$MSV1_0_ACMESHR_IA64.EXE
```

These images are introduced newly in the Advanced Server kit for Advanced Server Version 7.3A-ECO4.

```
JINXED\AMJAD>PWVER ALL
.
.
.
Status 7FFAC06C getting information about
SYS$COMMON:[SYSLIB]PWRK$ACME_MODULE_IA64.EXE;1
Status 7FFAC06C getting information about
SYS$COMMON:[SYSLIB]PWRK$MSV1_0_ACMESHR_IA64.EXE;1
.
.
```

This is due to the new header format, ELF (Extended Linking Format), for I64 images, which is different from existing Alpha/VAX header format.

Solution:

An Analyze/image on an I64 system for these images would indicate the image identification and the link time.

13.15.2 Wrong Time Set on Client After NET TIME Command Is Used to Synchronize with the Server

Problem:

When the NET TIME command is issued from a PC client to synchronize its clock with the Advanced Server (V7.3-ECO2 or later), as in the following example where the server is named TINMAN, the time set on the client might be incorrect. The time set on the client will be off by the GMT difference (in hours) reported by the server.

```
C:\> NET TIME \\TINMAN /SET
```

Solution:

Notify PC clients of this problem and to adjust accordingly.

13.15.3 Unable to Connect Using OpenVMS Computer Name if Different from Advanced Server Computer Name

In all versions of Advanced Server, the appropriate way to use the server's listenname in a command script is to create a symbol as shown below:

```
$ ! Get the server listenname;
$ ! Put the name into a symbol called "listenname"
$ REGUTL SHOW PARAM/SYMBOL=listenname/KNOWN/NOLOG -
  "node_''f$getsyi("nodename")'" listenname"
```

This is the only supported method to use the server's listenname in a command script. In previous versions of the Advanced Server, it was possible to use the server's listenname in a command script by supplying the string "NODENAME" as an argument to the F$GETSYI lexical function. That method only worked if the DECNET transport was enabled. That method was never supported and will not work with V7.3A or later.

This means that any use of the F$GETSYI lexical to specify the Advanced Server listenname may no longer work. Specifically, it will not work if the server's listenname has been changed to something different from the default. The default is the value of the SYSGEN parameter SCSNODENAME.