DIGITAL PATHWORKS for OpenVMS (Advanced Server)

Server Migration Guide

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This guide describes how to upgrade the DIGITAL PATHWORKS V5 for OpenVMS (LAN Manager) software to DIGITAL PATHWORKS V6 for OpenVMS (Advanced Server) software. It contains the preliminary information you need to plan an effective migration.

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Preface

About this Guide

Welcome to the DIGITAL PATHWORKS for OpenVMS (Advanced Server) *Server Migration Guide*. PATHWORKS and its associated OpenVMS system platform provide a powerful, reliable, and versatile operating environment that meets the demands of client-server computing. For the purpose of this guide, the PATHWORKS for OpenVMS (Advanced Server) is referred to as the PATHWORKS Advanced Server.

This guide describes how to migrate a server from PATHWORKS LAN Manager to PATHWORKS Advanced Server. It addresses the issues in upgrading existing PATHWORKS LAN Manager configurations and identifies areas that may require additional system management tasks.

You can reduce interruption in services to your users by carefully planning your migration and by implementing your migration in phases. In this way, you can introduce a new functionality without impacting existing functionality.

Audience

This guide is for OpenVMS network administrators who plan to migrate from PATHWORKS LAN Manager to PATHWORKS Advance Server. It assumes you have:

- A basic understanding of a PC LAN and WAN network

- A basic understanding of OpenVMS system management

- Access to PATHWORKS V6 for OpenVMS (Advanced Server) documentation

Organization of this Guide

This guide contains the following sections:

Section	Description
Chapter 1, Planning for Advanced Server Migration	Describes the PATHWORKS Advanced Server software and summarizes the differences between PATHWORKS LAN Manager and PATHWORKS Advanced Server.
Chapter 2, Overview of the Migration Process	Describes the steps in the server migration process.
Chapter 3, Changing Server Roles and Domain Names	Describes when and how to change the role of servers
Chapter 4, Installing the Upgrade Utility	Explains how to install the Upgrade utility.
Chapter 5, Upgrading Your Server Information	Explains how to generate upgrade reports and upgrade the server.
Chapter 6, Completing the Migration	Describes the tasks you perform after you upgrade the server information.
Chapter 7, Verifying the Migration	Explains how to verify the migration by checking interfaces, services and event logs.
Appendix A, Files Created by the Upgrade Utility	Describes the files created by the Upgrade utility.
Appendix B, Resolving Log File Error Messages	Describes Upgrade utility error messages and warnings.
Appendix C, Editing Upgrade Reports	Describes how to resolve errors in Upgrade reports.
Appendix D, Migration Worksheet	Contains a worksheet you can use to collect information for the upgrade.

Related Documents

The following documents are part of the PATHWORKS Advanced Server documentation set. Reference these documents for complete descriptions and procedural information about DIGITAL PATHWORKS Advanced Server utilities and software interfaces.

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

The following table lists related OpenVMS documents.

OpenVMS Document	Description
OpenVMS Alpha V7.1 Upgrade and Installation Manual	Describes how to install the OpenVMS Alpha V7.1 system software.
OpenVMS Alpha V7.2 Upgrade and Installation Manual	Describes how to install the OpenVMS Alpha V7.2 system software.
OpenVMS VAX V7.1 Upgrade and Installation Manual	Describes how to install the OpenVMS VAX V7.1 system software.
OpenVMS VAX V7.2 Upgrade and Installation Manual	Describes how to install the OpenVMS VAX V7.2 system software.
OpenVMS System Manager's Manual	A task-oriented guide to managing an OpenVMS system.
OpenVMS System Management Utilities Reference Manual	A reference guide 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)

Conventions

The following conventions are used in the Advanced Server documentation set:

Convention	Meaning
Ctrl/*x*	While you hold down the Ctrl key, press another key or a pointing device button.
Italic	Indicates a place holder for information or parameters that you must provide. For example, if the procedure asks you to type *file-name*, you must type the actual name of a file.
	Italics also indicate path names, new terms, and the titles of other documents.
monospace	Indicates the actual commands, words, or characters that you type in a dialog box or at a command prompt or system output.
Note:	Provides information of special importance.
Caution:	Provides information to avoid damaging the software or hardware.
Warning:	Provides information that is essential to people's safety.
/	A forward slash in command descriptions indicates that a command qualifier follows.

Convention	Meaning
. . .	A horizontal ellipsis following an entry in a command line indicates that the entry or a similar entry can be repeated any number of times. An ellipsis following a file name indicates that additional parameters, values, or information can be entered.
. . .	A vertical ellipsis in an example indicates that not all the data is shown.

1

Planning for Advanced Server Migration

1.1 Introduction

Before you begin the migration process, you need to understand the differences between PATHWORKS LAN Manager and PATHWORKS Advanced Server so you can plan for the changes PATHWORKS Advanced Server presents to your network environment. This section describes these differences and includes the following topics:

- **About the PATHWORKS Advanced Server** — describes the PATHWORKS Advanced Server interoperability with PATHWORKS LAN Manager servers.

- **Server Administration Differences** — describes the differences between the PATHWORKS LAN Manager and the PATHWORKS Advanced Server.

- **LAN Manager Features That Are Not Supported** — describes those features of the PATHWORKS LAN Manager that are not supported under the PATHWORKS Advanced Server.

- **Client Impact** — describes the impact of server migration to the PATHWORKS Advanced Server in the client environment.

- **LAN Manager Impact** — describes the impact of server migration to the PATHWORKS Advanced Server in the PATHWORKS LAN Manager environment.

- **Server License Requirements** — describes the licensing requirements for PATHWORKS Advanced Server.

1.2 About the PATHWORKS Advanced Server

A PATHWORKS LAN Manager server can be upgraded to a PATHWORKS Advanced Server or can continue running PATHWORKS LAN Manager and act as a backup domain controller (BDC), member server, or standalone server in a domain in which the primary domain controller (PDC) is a PATHWORKS Advanced Server or a Windows NT Server computer.

PATHWORKS Advanced Server maintains compatibility with LAN Manager client and server software. You can gradually integrate a PATHWORKS Advanced Server into an existing network and migrate to the new technology at your own pace.

1.2.1 Domain Composition

Both the PATHWORKS Advanced Server and the LAN Manager server organize clients and servers into domains. Every domain has one database that contains user accounts, group accounts, and security policy settings. Every server in the domain that is running the PATHWORKS Advanced Server maintains a copy of this database.

The minimum requirement for a domain is one server running either PATHWORKS Advanced Server (OpenVMS or DIGITAL UNIX) or Windows NT Server software. This computer serves as the PDC and stores the master copy of the domain's user and group database. A domain can contain only one PDC. A domain can include other servers running PATHWORKS Advanced Server (OpenVMS or DIGITAL UNIX), Windows NT Server software, or LAN Manager 2.*x* servers, acting as BDCs or member servers. Clients include Windows NT workstation computers, and other clients such as those running Windows for Workgroups and MS–DOS clients running PATHWORKS.

For more information about PATHWORKS Advanced Server domains, see the Advanced Server for OpenVMS *Concepts and Planning Guide*.

1.2.2 LAN Manager Servers

In a domain containing LAN Manager and PATHWORKS Advanced Servers, LAN Manager backup, member, and standalone servers function in the same way as they do in a LAN Manager-only domain. However, LAN Manager BDCs cannot validate Windows NT domain logons nor can they be promoted to PDCs in domains that include PATHWORKS Advanced Server servers.

1.2.3 NetWare Servers

If you are running the PATHWORKS for OpenVMS NetWare server on the same system, you must upgrade the NetWare server as well as the PATHWORKS Advanced Server. The NetWare server is upgraded automatically when you install the PATHWORKS Advanced Server. No separate upgrade procedure is required.

1.2.4 PATHWORKS License Servers

A PATHWORKS standalone license server runs the PATHWORKS license server but not the PATHWORKS LAN Manager or NetWare server. A standalone license server requires no special upgrade procedures to migrate from PATHWORKS LAN Manager to PATHWORKS Advanced Server. Follow the procedures described in the PATHWORKS for OpenVMS *Server Installation and Configuration Guide* for installing and configuring the standalone license server.

Note

Digital Equipment Corporation recommends that you install a standalone license server before upgrading LAN Manager and NetWare servers, for continuous licensing services.

1.3 Server Administration Differences

The following table describes the basic differences between PATHWORKS LAN Manager and PATHWORKS Advanced Server, and the impact these differences have on server administration as it pertains to:

- Server roles
- Domain trust relationships
- Users and groups
- Server administration
- OpenVMS clusters
- Security
- Share access
- Privileges

The sections following the table describe these differences in more detail.

Table 1–1 Server Administration Differences

PATHWORKS LAN Manager	PATHWORKS Advanced Server
Server Roles	
Servers can be defined as any of the following: • PDC • BDC • Member • Standalone	Servers can be defined as one of the following: • PDC • BDC

Migration Impact: You need to change roles for servers currently defined as member servers and standalone servers to PDC or BDC.

For more information, see Chapter 3, Changing Server Roles and Domain Names, in this guide.

Domain Trust Relationships	
Servers provide access to file and print services for users of the local domain only. Does not support trust relationships.	Servers provide access to file and print services for users of the local domain and can be defined with trust relationships to provide access to specified users in other domains.

Migration Impact: You have more flexibility in domain management and can continue to provide services during migration. Trust relationships can be established after the server is running PATHWORKS Advanced Server.

For more information, see the Advanced Server for OpenVMS *Concepts and Planning Guide*.

Table 1–1 (Cont.)   Server Administration Differences

PATHWORKS LAN Manager	PATHWORKS Advanced Server
Users and Groups	
You can organize users into global groups, providing access to domain services.	You can organize users into global groups for access to local domain services. Users from other domains may optionally be included in local groups to access services or resources in the local domain.

Migration Impact: You have more flexibility in domain management. You can establish local groups after the migration process is complete. For more information, see the Advanced Server for OpenVMS *Concepts and Planning Guide*.

Server Administration	
Server administration from:	Server administration from:
• ADMIN/PATH character cell interface	• ADMINISTER commands DCL interface
• LAN Manager Net commands command line interface	• Clients running LAN Manager (limited functionality)
• Clients running ManageWORKS software	• Clients and servers running Windows NT server administration tools
• Clients running LAN Manager	
• Clients running Windows NT server administration tools	• Clients and servers running Windows NT Server software
• Clients running Windows NT Server software	• Servers running Advanced Server for DIGITAL UNIX software
• LAN Manager servers	

Migration Impact: You must become familiar with the PATHWORKS Advanced Server command line interface.

For more information see the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide* and the Advanced Server for OpenVMS *Commands Reference Manual*.

Table 1–1 (Cont.) Server Administration Differences

PATHWORKS LAN Manager	PATHWORKS Advanced Server
Domain Logon Server	
A specific logon server may be specified in each user's account. The user's domain logon request is processed by this server each the user connects.	Client account information does not include a logon server. The server with the lightest load processes the user's domain logon request.

Migration Impact: Administrators can no longer explicitly specify which domain server validates the client domain logon request.

For more information about logon requests, refer to the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide*.

Security	
You can set the security model to any one of the following:	You can define the security model as one of the following:

• LAN Manager only	• Advanced Server only model
• LAN Manager and OpenVMS	• Advanced Server and OpenVMS model
• LAN Manager and Creator	

Migration Impact: You must determine whether the server will perform only Advanced Server security or both OpenVMS and Advanced Server security. PATHWORKS Advanced Server is the default security mode. If you choose both OpenVMS and Advanced Server security mode, the OpenVMS security in effect is determined by the OpenVMS account to which the PATHWORKS Advanced Server account maps.

For more information, refer to the Advanced Server for OpenVMS *Concepts and Planning Guide*.

Table 1–1 (Cont.)   Server Administration Differences

PATHWORKS LAN Manager	PATHWORKS Advanced Server
Share Access	
You can manage access to shares with share-specific passwords. The share access modes supported are: • User-level security • Share-level security	The share access modes supported are: • User-level security You can provide user access to shares through group membership. You can also set individual permissions for share access; however, it is much easier to administer group permissions.

Migration Impact: For V5 servers running with share-level security, after you upgrade, you must define groups for access to shares. You can also grant permissions for individual users to the shares (now running user-level security). The PATHWORKS Advanced Server software does not request share passwords.

For more information, refer to Section 1.3.5.2, Share Security in this guide, or the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide*.

Account Privileges	
Privileges are set individually. Each user account may have privileges attached.	Privileges are set by group membership. Predefined user groups have associated levels of access to management resources.
Administrator and operator privileges are designated by assigning Admin or Operator privilege in the user account.	Default Administrator and Operator groups are created when Advanced Server is installed. You grant administrator or operator privilege to a user by adding the user to the appropriate group.

Migration Impact: Users with current assigned privileges are upgraded to the respective privileged group.

Refer to the Advanced Server for OpenVMS *Concepts and Planning Guide* for more information about differences between PATHWORKS LAN Manager and PATHWORKS Advanced Server.

Refer to the Advanced Server for OpenVMS *Concepts and Planning Guide* for complete information about Advanced Server differences.

1.3.1 Server Roles

With both PATHWORKS Advanced Server and PATHWORKS LAN Manager, primary and backup domain controllers are similar in concept; however, they interoperate differently in the PATHWORKS Advanced Server environment. For example:

- If the PATHWORKS Advanced Server is in the same domain as a PATHWORKS LAN Manager server, the Advanced Server must be the PDC.

- Similarly, if the Windows NT Server is in the same domain as a PATHWORKS LAN Manager server, the Windows NT Server must be the PDC.

- If a PATHWORKS Advanced Server is in the same domain as a Windows NT Server, either server can act as PDC and maintain the master copy of user account information.

PATHWORKS Advanced Server may be configured as a primary or backup domain controller. Standalone and member server roles are no longer supported.

- PDC — This is a server that maintains the master copy of user account information and distributes it to BDCs and member servers in the same domain. A primary domain controller also validates domain logon requests made by clients.

  Only one PDC is allowed in a domain.

- BDC — This is a server that receives user account information from the PDC. A BDC can also validate logon requests made by clients. If a PDC fails, a BDC can be promoted to a PDC.

1.3.2 Trust Relationships

The PATHWORKS Advanced Server introduces the implementation of trusts into the domain, similar to Windows NT Server software. You can set up trust relationships to allow users from other domains to access resources in the local domain, and local domain users may access resources in other domains. To do this, you must establish the trust relationship in both domains using domain trust passwords.

Refer to the Advanced Server for OpenVMS *Concepts and Planning Guide* for more information about trust relationships.

1.3.3 Users and Groups

Both PATHWORKS Advanced Server and LAN Manager servers support user groups, which are sets of users who share common permissions for one or more resources. Placing users into groups makes it easier and faster to grant multiple users access to a resource, and it simplifies network administration.

The PATHWORKS Advanced Server supports two types of groups: *global* and *local*. The following table describes their differences.

Table 1–2 Local and Global Group Differences

Global Groups	Local Groups
Can be used to grant permission to objects on the local domain and other domains.	Can be used to grant permission to objects in the local domain only.
Can contain only user accounts from its own domain.	Can contain user accounts and global groups both from the local domain and from trusted domains.
Provides a way to create sets of users from only inside the local domain, available for use both to local and other domains.	Enable you to create convenient sets of users from both inside and outside the domain.

For more information about local and global groups, see the Advanced Server for OpenVMS *Concepts and Planning Guide*.

1.3.4 Server Administration

PATHWORKS LAN Manager provides a character-cell interface called ADMIN/PATH and the industry standard Net Admin command line interface. PATHWORKS Advanced Server provides a comprehensive DCL-conforming command line interface called ADMINISTER.

The PATHWORKS Advanced Server software package also includes Windows NT server administration tools.

1.3.4.1 New Command Line Interface

The PATHWORKS Advanced Server provides a new command line interface for managing PATHWORKS Advanced Server. The new interface conforms to standard DCL command syntax, and replaces the LAN Manager Net command line interface. For backward compatibility purposes, the new command line interface supports command translation for a subset of the Net commands.

To use the new command line interface, log in as the system administrator, then enter the following command at the OpenVMS prompt:

```
$ ADMINISTER
```

```
//domain/server>
```

The *//domain/server>* prompt shows the current domain name and server name. For online information, enter the HELP command.

Refer to the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide* and the Advanced Server for OpenVMS *Commands Reference Manual* for more information about the ADMINISTER command interface.

1.3.4.2 Windows NT Server Administration Tools

You can remotely manage the PATHWORKS Advanced Server using the Windows NT server administration tools provided with the Windows NT Server. These administration tools are included in the PATHWORKS Advanced Server software kit for you to install on Windows 95, Windows NT, or Windows for Workgroups workstations. You can use these tools to manage the PATHWORKS Advanced Server from any computer within the domain.

The Windows NT server administration tools are generic network administration tools, including:

• Server Manager

• User Manager for Domains

For more detailed information, see the Windows NT Server product documentation.

1.3.5 Security

The PATHWORKS Advanced Server employs a user-level security model. User-level security provides precise control over access to shared resources, including disk devices, directories, and printers, basing its control on a password assigned to each user account. PATHWORKS Advanced Server security implementation is described as follows:

• Account Privileges — With PATHWORKS LAN Manager, privileges (Administrative or Print Operator, for example) are set individually for each user within the user's account. PATHWORKS Advanced Server privileges are set by group membership. Predefined user groups (Print Operator, for example) have associated levels of access to manage resources. The Upgrade procedure will automatically make users with PATHWORKS LAN Manager privileges members of the appropriate predefined PATHWORKS Advanced Server groups.

- Implicit Right of a User with Administrative Privilege — With PATHWORKS LAN Manager, a user with Administrative privilege has access to all files in the system by default. With PATHWORKS Advanced Server, a user in an administrator's group does not have access to files by default. Access to files with PATHWORKS Advanced Server is based on the permissions put on the files. Users with Administrative privilege can gain access to a file by taking ownership of the file and modifying the permissions. Therefore, users with Administrative privilege may not have access to files they had with LAN Manager unless permissions are set to allow file access.

- Groups — To simplify administration of user accounts, you can set up a group (or multiple groups) of users and assign access permissions by group. When you make a change to the permissions to access a resource for a group — for example, change group access permissions for a shared printer — you change the permissions for all users belonging to the group. You do not have to apply modifications to each of the group's members individually.

- Logon validation — PATHWORKS Advanced Server uses logon security to restrict access to users with valid accounts in the domain.

- Permission Based on Root Device access control lists (ACLs) — With PATHWORKS LAN Manager, you can grant access to objects on a device by including a security ACL on the root device directory. This access control information is used when the access set on the object and the object's parent directory did not grant or deny access to the user attempting to access the file or directory. With PATHWORKS Advanced Server, the root device's directory is not used to determine access to file or directory. Therefore, files that were once accessible by LAN Manager users may no longer be accessible by the same users with PATHWORKS Advanced Server.

- Permission Based on Object's Parent ACLs — With PATHWORKS LAN Manager, you can put a security ACL on an object's parent directory. This security access control entry (ACE) is checked if the ACL on the object did not contain any ACEs for the user trying to access the file. With PATHWORKS Advanced Server, the object's parent directory is checked:

  - when the object does not have an access control list.

  - to ensure no explicit deny access entry is specified. Therefore, users may lose access to files that they had access to when running PATHWORKS LAN Manager.

- Deny-access ACEs — Access to files with PATHWORKS Advanced Server is based on the file's security access ACL. All deny-access ACEs take precedence over grant-access ACEs in the ACL. If there is an ACE in the ACL that denies a user access, and another ACE that grants the user access, the user will be denied access to the file. A deny-access ACE does not take precedence over a grant-access ACE with PATHWORKS LAN Manager. Therefore, users may lose access to files that they had when running LAN Manager.

- Full Access and Child Delete Permission on a Directory — With PATHWORKS LAN Manager, if a user has full access to a directory, and has no access to a file in the directory, the user cannot access the file. With PATHWORKS Advanced Server, a user with full access to the directory also is granted a new access right called Child-delete. This access right allows the user to delete any file in the directory and disregards the access setting on the file. This difference in the PATHWORKS Advanced Server security model means users may have delete access to objects that they did not have when running PATHWORKS LAN Manager.

- Change Attribute (A) and Create (C) Permission Bits — The Change Attribute (A) permission is not supported with PATHWORKS Advanced Server security. Any change attribute operation will be successful regardless of the file or directory permissions.

  The Create (C) file permission is not supported with PATHWORKS Advanced Server. This permission is mapped to the PATHWORKS Advanced Server Write (W) permission. This mapping may allow users access to files that were not accessible in PATHWORKS LAN Manager.

For more information on PATHWORKS Advanced Server security, refer to the Advanced Server for OpenVMS *Concepts and Planning Guide*.

1.3.5.1 Resource Permissions

Like PATHWORKS LAN Manager permissions, the PATHWORKS Advanced Server permissions can work in concert with standard OpenVMS file system protections. In addition, PATHWORKS Advanced Server allows you to apply a virtually unlimited number of *user:permission* or *group:permission* pairs to any file, directory, or resource.

Refer to the Advanced Server for OpenVMS *Concepts and Planning Guide* for detailed information on permissions.

1.3.5.2 Share Security

Like Windows NT Servers, the PATHWORKS Advanced Server does not support share-level security and operates in user-level security mode only. Share passwords are not required with the PATHWORKS Advanced Server. User accounts are granted access to resources based on their user account information and group membership.

You can set individual permissions for share access, however it is much easier to administer group permissions.

The recommended steps for granting user access to PATHWORKS Advanced Server shares are:

1. Modify the share to allow group access.

2. Assign users to the appropriate group.

For more information about PATHWORKS Advanced Server security, see the Advanced Server for OpenVMS *Concepts and Planning Guide*.

1.4 LAN Manager Features That Are Not Supported

This section summarizes the PATHWORKS LAN Manager features that are not supported with PATHWORKS Advanced Server:

*   Member and standalone server domain roles — PATHWORKS Advanced Server does not support the following domain roles:

    –   Member server

    –   Standalone server

    A PATHWORKS Advanced Server must be either a PDC or a BDC.

*   FAT volumes — FAT volumes are not supported by the PATHWORKS Advanced Server. To continue to provide FAT volume access to clients, maintain the PATHWORKS LAN Manager server on a separate system. Files held within shares on a FAT volume must be migrated to PATHWORKS Advanced Server shares prior to upgrading to PATHWORKS Advanced Server.

*   Backward compatibility — The PATHWORKS Advanced Server software does not support Backward Compatibility mode. This mode was used to ease the migration from PATHWORKS V4.*x* to PATHWORKS LAN Manager. Make sure all clients making use of this connection format are upgraded.

- Net commands — The PATHWORKS Advanced Server does not support Net commands. ADMINISTER commands replace Net commands. A Net command interpreter accepts and translates most Net commands to the equivalent ADMINISTER command.

- Remote Boot Service — The PATHWORKS Advanced Server does not support the Remote Boot Service. If clients depend on remote booting, you must maintain the PATHWORKS LAN Manager server on a separate system. Transfer this function to another server that supports Remote Boot Service prior to the upgrade.

- Share-Level Security — PATHWORKS Advanced Server does not support share-level security. It manages access to all resources through user-level security. Therefore, share passwords are not required under Advanced Server. User accounts are granted access to resources based on their user account information and group membership.

- LAN Manager & Creator Security Mode — PATHWORKS Advanced Server does not support the LAN Manager & Creator security mode. The server may be configured for PATHWORKS Advanced Server only security or for PATHWORKS Advanced Server & OpenVMS security.

1.5 Client Impact

The PATHWORKS Advanced Server is compatible with LAN Manager client software. Although LAN Manager servers need to be upgraded to benefit from PATHWORKS Advanced Server functionality, there is no need to change the networking software on each desktop. Users can benefit immediately from the new resources offered by the PATHWORKS Advanced Server without additional training because there is no change in the way users access network resources.

PATHWORKS Advanced Server supports connections from the following types of clients:

- Windows NT
- Windows 95
- Windows for Workgroups
- PATHWORKS for DOS and Windows
- PATHWORKS for Windows 95
- PATHWORKS 32

- PATHWORKS for Windows NT

_____ **Note** _____

After upgrading, clients will have to reconnect to the server.

1.6 LAN Manager Impact

To migrate from PATHWORKS LAN Manager to PATHWORKS Advanced
Server without disrupting service, install only the Upgrade utility first.
You cannot continue to run the PATHWORKS LAN Manager software once
the PATHWORKS Advanced Server server has been installed. Install the
PATHWORKS Advanced Server server only after completing the upgrade of
server information.

1.7 Server License Requirements

The PATHWORKS Advanced Server requires that clients accessing file and
print services be appropriately licensed. To conform to this requirement, one of
the following must be true:

- The client must have an appropriate client-based license previous to
  connecting to a PATHWORKS Advanced Server.

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

In both cases, the license required to access PATHWORKS Advanced Server
services is the PATHWORKS Client-Access license: PWLMXXXCA06.00.

Refer to Chapter 6, Completing the Migration, for a description of the
procedure.

1.7.1 Options for Upgrading Client-Based Licenses

When you plan the migration from PATHWORKS LAN Manager to
PATHWORKS Advanced Server, assess the environment and decide the best
procedure to ensure clients who need to access the PATHWORKS Advanced
Server are sufficiently licensed. Upgrade options for client-based licenses
include:

- Individually configuring clients to request a PATHWORKS Advanced
  Server client-access license.

- Removing all PATHWORKS LAN Manager licenses and loading new PATHWORKS Advanced Server licenses.

- Configuring the PATHWORKS license server to upgrade all PATHWORKS LAN Manager licenses presented to the PATHWORKS license server to PATHWORKS Advanced Server licenses automatically.

These options are described in more detail in Configuring Clients, Removing PATHWORKS LAN Manager Licenses, and Configuring Automatic Upgrade in this guide.

1.7.2 Configuring Clients

Individually configuring specific clients to request a PATHWORKS Advanced Server license requires visiting the clients and modifying their configuration for the licenses the client requests. This procedure works best in the following situations:

- There are very few clients that will access the PATHWORKS Advanced Server.

- Migration of clients to using the PATHWORKS Advanced Server will be completed over a long period of time.

The actual procedure for configuring clients varies depending on the client networking software. Refer to the Advanced Server for OpenVMS *Guide to Managing Advanced Server Licenses* for more detailed instructions.

1.7.3 Removing PATHWORKS LAN Manager Licenses

You can remove the PATHWORKS LAN Manager licenses from the license server system when you load the new PATHWORKS Advanced Server license PAKs. You remove licenses using the License Management Facility (LMF). After that, clients requesting server access will receive a PATHWORKS Advanced Server license.

When you remove a license, you revoke any previously assigned licenses. Therefore, when a client requests a license assignment or verification, the client is assigned a PATHWORKS Advanced Server license.

1.7.4 Configuring Automatic Upgrade

Configuring the PATHWORKS license server to upgrade licenses will affect all clients presenting or requesting a PATHWORKS LAN Manager license. If the PATHWORKS license server is configured to upgrade licenses, a PATHWORKS Advanced Server license is granted when either of the following occurs:

- A client requests assignment of a PATHWORKS LAN Manager license.

- A client requests verification of a previously assigned PATHWORKS LAN Manager license.

The PATHWORKS license server automatically assigns the client a PATHWORKS Advanced Server license (even though the client expects assignment or verification of a PATHWORKS LAN Manager license), and returns an equivalent PATHWORKS Advanced Server license to the client, if available.

2

Overview of the Migration Process

2.1 Introduction

Migrating to PATHWORKS Advanced Server includes planning network changes, upgrading server information, and verifying and completing the migration. This section provides a complete overview of the steps in the migration process.

2.2 Steps in the Migration Process

The following table summarizes the recommended steps in the migration process.

Table 2–1   Steps in the Migration Process

Step	Procedure	Section
1.	**Complete the migration worksheet.**	Appendix D, Migration Worksheet
	Before you run the Upgrade utility, read this guide and then collect the information required to complete the migration process. The migration worksheet helps you keep track of the elements of the server that will change with the upgrade. The migration worksheet is only available in the printed copy of this guide.	

(continued on next page)

Table 2–1 (Cont.)   Steps in the Migration Process

Step	Procedure	Section
2.	**Select the server to upgrade first.** When you upgrade a domain with only PATHWORKS LAN Manager servers, you must upgrade the PDC first to preserve domain security. Therefore you must upgrade servers in the following order: • PDC • BDC, member or standalone server **Note:** If your license server runs on a standalone system, upgrade the license server first (before any other server). Refer to the Advanced Server for OpenVMS *Guide to Managing Advanced Server Licenses* for more information.	Chapter 5, Upgrading Your Server Information
3.	**Determine the role of the server.** The PATHWORKS Advanced Server does not support the following traditional LAN Manager roles: • Standalone servers • Member servers You may need to change the role of these servers prior to upgrading them to PATHWORKS Advanced Server.	Chapter 3, Changing Server Roles and Domain Names
4.	**Change the server's domain.** With PATHWORKS Advanced Server, trusts provide you with greater choices for information sharing and resource management. You can change the server's domain to consolidate duplicate databases and incorporate new servers.	Chapter 3, Changing Server Roles and Domain Names

Table 2–1 (Cont.)   Steps in the Migration Process

Step	Procedure	Section
5.	**Install the Upgrade utility.** DIGITAL recommends that you install the Upgrade utility only, and then install the Advanced Server software later. Installing just the Upgrade utility allows you to upgrade your PATHWORKS LAN Manager server database to a PATHWORKS Advanced Server database, while you continue to run PATHWORKS LAN Manager, preventing interruptions in service.	Chapter 4, Installing the Upgrade Utility
6.	**Upgrade the PDC.** The order in which you upgrade servers is important. When you upgrade a domain with only PATHWORKS LAN Manager servers, you must upgrade the PDC first to preserve domain security	Chapter 5, Upgrading Your Server Information
7.	**Upgrade BDCs.** When upgrading Backup Domain Controllers (BDCs), the PDC in the domain must be already running PATHWORKS Advanced Server or Windows NT Server software.	Chapter 5, Upgrading Your Server Information
8.	**Install the Advanced Server.** After you have upgraded server information, you can install the PATHWORKS Advanced Server software.	Chapter 6, Completing the Migration
9.	**Configure and start the PATHWORKS Advanced Server.** After installing the PATHWORKS Advanced Server software, you can configure and start it.	Chapter 6, Completing the Migration

Table 2–1 (Cont.)   Steps in the Migration Process

Step	Procedure	Section
10.	**Load and allocate licenses.** To access the PATHWORKS Advanced Server, every client must obtain and load a PATHWORKS Advanced Server license.	Chapter 6, Setting Up Licensing section
11.	**Verify the migration.** After completing the migration, you need to check management interfaces and services to ensure access.	Chapter 7, Verifying the Migration

3

Changing Server Roles and Domain Names

3.1 Introduction

Before you can run the Upgrade utility, you must determine whether the server role or the domain name will be changing. If the server role or domain name will be changed, there are additional steps you must take before and after running the Upgrade utility. This section explains the steps necessary for changing the server role or domain name, and includes the following topics:

- **Upgrading Standalone and Member Servers** — describes how to upgrade server roles that the PATHWORKS Advanced Server does not support.

- **Determining Your Upgrade Path** — describes how to determine which upgrade path to follow.

- **Upgrading with No Role or Domain Change** — describes the steps to upgrading the server when the server role and domain name will not be changed.

- **Upgrading into a Different Domain** — describes the steps to upgrading when the server will join a different, existing domain.

- **Changing the Server Role** — describes the steps to upgrading when the server's role will be changed.

- **Upgrading the Server as a PDC in a New Domain** — describes the steps to upgrading a PDC that will be in a new domain that does not currently exist.

3.2 Upgrading Standalone and Member Servers

You can configure the PATHWORKS Advanced Server as a PDC or BDC. The PATHWORKS Advanced Server does not support the traditional roles of standalone and member servers. The Upgrade utility will automatically upgrade standalone and member servers as backup domain controllers. When upgrading standalone servers, you have the option of preserving the existing User/Group database and merging it into another domain.

3.3 Determining Your Upgrade Path

The upgrade path includes the steps you take before, during, and after upgrading. The following sections describe all the possible upgrade paths for the following PATHWORKS LAN Manager server roles:

- Primary domain controller (PDC)

- Backup domain controller (BDC)

- Member server

- Standalone server

You can upgrade any of these types of servers to the following PATHWORKS Advanced Server domain configurations:

- PDC in the same domain (that is, the domain in which the server is currently participating)

- BDC in the same domain.

- PDC in a different domain (that is, an existing domain with its own PDC)

- BDC in a different domain

- PDC in a new domain (that is, a domain that does not currently exist)

Table 3–1   Upgrade Paths

To upgrade this type of PATHWORKS LAN Manager server. . .	To this type of PATHWORKS Advanced Server . . .	Refer to this section. . .
PDC	PDC in the same domain	Upgrading with No Role or Domain Change

<div align="right">(continued on next page)</div>

Table 3–1 (Cont.)   Upgrade Paths

To upgrade this type of PATHWORKS LAN Manager server. . .	To this type of PATHWORKS Advanced Server . . .	Refer to this section. . .
	BDC in the same domain	Changing the Server Role
	PDC in a different domain	Changing the Server Role
	BDC in a different domain	Upgrading into a Different Domain
	PDC in a new domain	Upgrading the Server as a PDC in a New Domain
BDC	PDC in the same domain	Changing the Server Role
	BDC in the same domain	Upgrading with No Role or Domain Change
	PDC in a different domain	Changing the Server Role
	BDC in a different domain	Upgrading into a Different Domain
	PDC in a new domain	Upgrading the Server as a PDC in a New Domain
Member Server	PDC in the same domain	Changing the Server Role
	BDC in the same domain	Upgrading with No Role or Domain Change
	PDC in a different domain	Changing the Server Role
	BDC in a different domain	Upgrading into a Different Domain
	PDC in a new domain	Upgrading the Server as a PDC in a New Domain
Standalone Server	PDC in the same domain	Changing the Server Role
	BDC in the same domain	Upgrading with No Role or Domain Change
	PDC in a different domain	Changing the Server Role
	BDC in a different domain	Upgrading into a Different Domain
	PDC in a new domain	Upgrading the Server as a PDC in a New Domain

3.3.1 Upgrading with No Role or Domain Change

This section describes the upgrade path when the User/Group database is to be merged with an existing domain database.

Note

The PDC on the domain into which the server will be merged must be running PATHWORKS Advanced Server or Windows NT Server.

You need not perform additional steps before running the Upgrade utility. The Upgrade utility will convert the PATHWORKS LAN Manager server into a PATHWORKS Advanced Server BDC in the domain you specify. If you want this server to take the role of a PDC in the domain, you must manually make the role change after installing and starting the PATHWORKS Advanced Server.

To upgrade the server, run the Upgrade utility, as described in Chapter 5, Upgrading Your Server Information, in this guide.

- If the PATHWORKS LAN Manager server is a PDC, follow the directions in Section 5.5, Upgrading a Primary Domain Controller, in this guide. After the upgrade, this server will continue to take the role of the PDC.

- If the PATHWORKS LAN Manager server is a BDC, member server, or standalone server, follow the directions in Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server, in this guide. After the upgrade, this server will take the role of a BDC.

3.3.2 Upgrading into a Different Domain

This section describes the upgrade path when the User/Group database is to be merged into a different domain's database.

Note

The PDC on the domain into which the server will be merged must be running either PATHWORKS Advanced Server or Windows NT Server.

You need take no additional steps before running the Upgrade utility. The Upgrade utility converts the PATHWORKS LAN Manager server into a PATHWORKS Advanced Server BDC in the domain you specify. If you want the server to take the role of a PDC, you must manually make the role change after installing and starting the PATHWORKS Advanced Server.

To upgrade:

1. Run the Upgrade utility as described in Chapter 5, Upgrading Your Server Information, and follow the directions in Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server.

2. Select Upgrading as a BDC. During the User/Group upgrade, you are given the opportunity to merge the existing User/Group database into the new domain.

3.3.3 Changing the Server Role

This section describes the upgrade path when you want the upgraded server to play a different role in either the same domain or a different domain. For example, you may want to change the server's role because the PATHWORKS LAN Manager server will be a more powerful PDC than the currently running PDC.

You would want to change the server's domain if you want to merge the User/Group database from a PATHWORKS LAN Manager domain into a PATHWORKS Advanced Server or Windows NT domain.

After you run the Upgrade utility, and after you install and start the server, you must manually change the role of the server.

*   To upgrade a BDC:

    1. Run the Upgrade utility as described in Chapter 5, Upgrading Your Server Information, in this guide. When prompted for the type of upgrade to perform, respond with Y, to upgrade as a BDC.

    2. Complete the upgrade, as described in Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server, in this guide.

*   To upgrade a PDC:

    1. Run the Upgrade utility, as described in Chapter 5, Upgrading Your Server Information, in this guide. When prompted for the type of upgrade to perform, accept the default (N), to upgrade as a PDC.

    2. Complete the upgrade, as described in Section 5.5, Upgrading a Primary Domain Controller, in this guide.

For example:

You have two domains in your network, PWRK and WINNT. The PDC of the PWRK domain is a PATHWORKS LAN Manager server: PWPDC. The PDC of the WINNT domain is a Windows NT Server: NTPDC. You want to merge these two domains, and preserve the domain name WINNT.

You would also like to make the PDC from the PWRK domain the new PDC in the WINNT domain, because PWPDC is an OpenVMS cluster of DIGITAL Alpha systems, a configuration that provides high availability to PDC functions.

To achieve this environment, you perform the following steps:

1. Install the Upgrade utility. Select Install Upgrade utility only, as described in Chapter 4, Installing the Upgrade Utility, in this guide.

2. Run the Upgrade utility, as described in Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server, in this guide. The Upgrade utility allows you to change the BDC's domain. Select the option to change the domain name, which allows you to merge all users and groups into the new domain.

3. Install, configure, and start the PATHWORKS Advanced Server.

4. Use the PATHWORKS ADMINISTER command to change the roles of the servers. For example:

```
$ ADMINISTER SET COMPUTER /ROLE=PRIMARY_DOMAIN_CONTROLLER
```

The role of the PDC will automatically change to a BDC.

3.3.4 Upgrading the Server as a PDC in a New Domain

This section describes the upgrade path if you want the PATHWORKS Advanced Server to be a PDC in a new domain that does not have a PDC. For example, follow this procedure if you have a standalone server in an existing domain that already has a PDC, and you want the standalone server to be a PDC in a new domain.

Depending on the current role of the PATHWORKS LAN Manager server, you may do some or all of the steps listed below:

1. For a BDC or member server, while running the PATHWORKS LAN Manager server, change the role of the LAN Manager server to a standalone server, using the following command:

```
$ NET ACCOUNTS/ROLE:STANDALONE
```

2. Change the server's domain name using the following PATHWORKS LAN Manager command procedure:

```
$ @SYS$UPDATE:PWRK$SETINI.COM
```

3. Restart the PATHWORKS LAN Manager server.

4. For a BDC, member server, or standalone server, promote the
   PATHWORKS LAN Manager server to a PDC in the new domain that
   you just created. For example:

   ```
   $ NET ACCOUNTS/ROLE:PRIMARY
   ```

5. Install and run the Upgrade utility, as described in Section 5.5, Upgrading
   a Primary Domain Controller, in this guide.

4

Installing the Upgrade Utility

4.1 Introduction

The software kit for the PATHWORKS Advanced Server provides a single installation procedure that allows you to install any of the following:

- PATHWORKS Advanced Server software (including the Upgrade utility and the license server)

- NetWare server software (including the license server)

- PATHWORKS Advanced Server Upgrade utility only

- PATHWORKS license server only

If you are upgrading a server to PATHWORKS Advanced Server, Digital Equipment Corporation recommends that you follow the procedure described in the following sections:

- **Before You Install the Upgrade Utility** — describes what you must do before you upgrade the server.

- **Options for Installing the Upgrade Utility** — describes how to install the Upgrade utility.

4.2 Before You Install the Upgrade Utility

To safeguard against the loss of valuable data, Digital Equipment Corporation recommends that you back up all disks on your system before you install any layered product. To do a system backup, use the OpenVMS BACKUP command. For information about the BACKUP command, see the *OpenVMS System Management Utilities Reference Manual* and the *OpenVMS System Manager's Manual.*

4.3 Options for Installing the Upgrade Utility

When you migrate a server from PATHWORKS LAN Manager to PATHWORKS Advanced Server, follow the steps listed below. This allows you to upgrade your PATHWORKS LAN Manager server database while continuing to run the PATHWORKS LAN Manager server. This provides the smoothest migration process with uninterrupted network service.

1. The installation may be performed while the PATHWORKS LAN Manager server is running. Also, a system reboot is not necessary after installation when installing only the Upgrade utility. To begin the installation, enter:

   ```
   $ @SYS$UPDATE:VMSINSTAL [Product-Name]
   ```

   _____ **Note** _____

   For the initial release of PATHWORKS Advanced Server, the *Product-Name* is PWRK060. See the cover letter shipped with your media kit to determine the product name for subsequent releases.

   _____

2. When you execute the installation procedure, the procedure offers you the option of installing the Upgrade utility only. Select this option.

3. Upgrade the server information, using the procedures described in Chapter 5, Upgrading Your Server Information, in this guide.

4. Install the PATHWORKS Advanced Server software, then configure and start it, as described in the PATHWORKS for OpenVMS *Server Installation and Configuration Guide*.

The remaining procedures described in this guide assume that you are following the steps described above.

You have the option to install the server software initially. In this case, the Upgrade utility is automatically installed also. After installing the software, start the upgrade process described in Chapter 5, Upgrading Your Server Information, in this guide. After upgrading, configure and start the server.

5

Upgrading Your Server Information

5.1 Introduction

This section describes how to upgrade a PATHWORKS LAN Manager server using the Upgrade utility. There are several different ways to complete the upgrade. Chapter 3, Changing Server Roles and Domain Names, describes the most common scenarios. In some cases, you need to modify the existing PATHWORKS LAN Manager environment before you can run the Upgrade utility, to preserve the existing database or to avoid a conflict in server roles.

After you have completed the steps described in Chapter 3, Changing Server Roles and Domain Names, you can use the Upgrade utility as described in the following sections:

- **The Order for Upgrading Server Information** — describes the order in which you must upgrade servers.

- **How the Upgrade Utility Works** — describes the Upgrade utility and how it works.

- **Navigating the Upgrade Utility** — describes how to navigate with the Upgrade utility.

- **Upgrading a Primary Domain Controller** — describes how to upgrade the PDC.

- **Upgrading a Backup Domain Controller, Member Server, or Standalone Server** — describes how to upgrade a BDC, member server, or standalone server.

- **Troubleshooting** — describes how to troubleshoot problems that may occur during the upgrade.

5.2 The Order for Upgrading Server Information

The order in which you upgrade servers is important for several reasons:

- When you upgrade a domain with only PATHWORKS LAN Manager servers, you must upgrade the PDC first.

- When upgrading a BDC, member server, or standalone server, the PDC in the domain must already be running PATHWORKS Advanced Server or Windows NT Server software.

Therefore, you must upgrade servers in the following order:

1. PDC

2. BDC, member server, or standalone server

Note

If your server runs on the license server only, upgrade the license server before any other server. Refer to the PATHWORKS for OpenVMS *Server Installation and Configuration Guide* for more information on installing the standalone license server.

5.2.1 Upgrading OpenVMS Clusters

All nodes in an OpenVMS cluster have the same role: PDC or BDC. OpenVMS clusters are upgraded in the same manner as other servers. If all the nodes in the cluster are running PATHOWRKS LAN Manager, they will be upgraded together. If the cluster is a BDC, then upgrade the PDC first.

You can run the Upgrade utility on any member of the cluster regardless of whether the PATHWORKS LAN Manager server is running on that node. However, the node must have access to the PATHWORKS on-disk structure and the shared resources. You only need to run the Upgrade utility once. You need not run it on all nodes in the cluster that are running PATHWORKS LAN Manager.

5.3 How the Upgrade Utility Works

The PATHWORKS Advanced Server kit provides an Upgrade utility that lets you establish a domain for the server and upgrade server information. The first time you run the Upgrade utility, the system lets you create PATHWORKS Advanced Server security account manager (SAM) database files and identify the domain for the server you are upgrading. See Appendix A, Files Created by the Upgrade Utility, in this guide.

The Upgrade utility then lets you generate upgrade reports that show the PATHWORKS LAN Manager server objects that will be upgraded to PATHWORKS Advanced Server objects. You can then review the reports and identify and resolve conflicts to ensure a smooth and complete upgrade. Once the upgrade reports accurately reflect your desired environment, the Upgrade utility allows you to upgrade objects one at a time or all at once.

The Upgrade utility creates reports for the following objects:

- Users and Groups — The User Upgrade report is used as input to the Group report. Therefore, you must create and edit the user report prior to the group report. When you upgrade users and groups, the Upgrade utility takes each user and group from the PATHWORKS LAN Manager user and groups database, ACCOUNTS.LMX, and moves them into the PATHWORKS Advanced Server SAM database. The reports are not deleted after the upgrade is completed. You can create reports, exit the Upgrade utility, and run Upgrade again to continue.

  _____ **Note** _____

  The upgrade process preserves passwords set with PATHWORKS LAN Manager.

  _____

  When two domains are being merged, if two users have the same username, you must give one of the users a new username.

- Shares — The Shares upgrade upgrades PATHWORKS LAN Manager shares to PATHWORKS Advanced Server shares. When you upgrade shares, the Upgrade utility takes each share from the PATHWORKS LAN Manager share database and moves it into the PATHWORKS Advanced Server share database.

- Miscellaneous (security parameters) — The miscellaneous option upgrades security ACLs on devices such as printers and CD-ROM drives, and the security policy information (password length, age, and so forth.) You do not need to create a report for Miscellaneous.

- Security (on disk) — When you upgrade security, the Upgrade utility reads the PATHWORKS LAN Manager Access Control Lists (ACLs), creates a security descriptor, and writes it to the Advanced Server ACL. There are two ways to upgrade security, as described in Section 5.3.1, About Upgrading Security, in this guide.

5.3.1 About Upgrading Security

Before upgrading security on files, you must upgrade all users and groups. Otherwise, the security access control entries (ACEs) that belong to these users and groups will not be upgraded.

There are two ways to upgrade security:

- Use the Upgrade utility as described in Section 5.5, Upgrading a Primary Domain Controller and Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server, in this guide. From the Select V5 Objects to Upgrade screen, select Security.

- Allow the PATHWORKS Advanced Server to dynamically upgrade file security the first time a user accesses or references the file after starting the PATHWORKS Advanced Server.

Digital Equipment Corporation recommends that you use the Upgrade utility to upgrade security on files because this procedure provides greater control and definition. This allows you to upgrade while the PATHWORKS LAN Manager server is running. However, if a file is open during the upgrade process, the file may not be upgraded. You can enable dynamic security upgrade, to upgrade remaining files dynamically after you complete the upgrade procedure. Files are upgraded when users make connections to them. Note that dynamic security upgrade slows the performance of the server so it is not recommended as a permanent setting. Dynamic security upgrade is disabled by default. To enable dynamic security, use the PATHWORKS Configuration Manager. Refer to the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide* for more information about how to use the Configuration Manager.

The following sections describe the differences between PATHWORKS LAN Manager and Advanced Server permissions. The PATHWORKS Advanced Server security upgrade is designed to preserve access to the PATHWORKS LAN Manager environment. While LAN Manager access can be mapped directly to the PATHWORKS Advanced Server security model, there are some differences. These differences are described in the following sections.

5.3.1.1 Administrator Privilege

The PATHWORKS Advanced Server security upgrade process is designed to preserve the behavior of users with Administrative privilege or their right to have full access to all files accessible in the PATHWORKS LAN Manager environment. The Upgrade utility will grant full access to the ADMIN user and the local Administrators group for any file that has a PATHWORKS LAN Manager security ACE. By doing so, the access to these files is preserved.

_____ **Note** _____

A user with Administrator privilege may be denied access to some files after the server had been upgraded if a file has an ACE that explicitly denies access to the user. With PATHWORKS LAN Manager, this deny-access ACE is not enforced when the file is accessed by a user with Administrative privilege.

_____

5.3.1.2 Permissions Set on Root Device ACLs

The PATHWORKS Advanced Server security upgrade process does not upgrade access control information set on the root device directory. If your environment relies on access control information set on the root device, you must apply the ACEs to the appropriate directory and file prior to upgrading security.

5.3.1.3 Permissions Set on Object's Parent ACLs

The PATHWORKS Advanced Server security upgrade process upgrades all security ACLs on an object. However the access control information set on the parent directory is not propagated to the object with the upgrade. Users may lose access to files they had access to when running PATHWORKS LAN Manager.

With PATHWORKS Advanced Server, the object's parent directory is checked:

* when the object does not have an access control list

* to ensure no explicit deny access entry is specified

5.3.1.4 Deny-Access ACEs

The PATHWORKS Advanced Server security upgrade process does not upgrade a group deny-all ACE. With PATHWORKS LAN Manager, if a user was denied access through a deny-all ACE, the user may gain access to a file if another ACE in the ACL grants access. With PATHWORKS Advanced Server, access is denied when any deny ACE is found.

If you used a deny-all ACE to control access to resources in PATHWORKS LAN Manager, you must reapply these ACEs to individual objects.

5.3.1.5 Full Access and Child Delete Permissions

With PATHWORKS LAN Manager, if a user has full access to a directory, and has no access to a file in the directory, the user cannot delete this file. With PATHWORKS Advanced Server, a user with full access to the directory also is granted a new access right called Child-delete. This new access right allows the user to delete any file in the directory and disregards the access setting on the file.

5.3.1.6 Change Attribute (A) and Create (C) Permission Bits

The PATHWORKS Advanced Server security upgrade process does not upgrade the PATHWORKS LAN Manager "Change Attribute" (A) permission. Any Change Attribute operation will be successful regardless of the file or directory permissions.

The PATHWORKS Advanced Server security upgrade process upgrades the PATHWORKS LAN Manager Create (C) permission to the PATHWORKS Advanced Server Write permission. If you use Create permission to control access to a directory, be sure to check these resources after the upgrade, to ensure that the new permission does not cause a security problem.

5.3.1.7 Printer permission "C" and "P"

The PATHWORKS Advanced Server security upgrade will upgrade printer permissions as shown in the following table.

LAN Manager	PATHWORKS Advanced Server Equivalent	Description/Differences
C=Y (Yes)	Print	User can access and send jobs to the printer queue.
C=N (No)	None	User cannot access or send jobs to the printer queue.
None	Manage Documents	User can control settings for print queues and pause, resume, restart, and delete print jobs; applies only to PATHWORKS Advanced Server
P (Yes+Change Permissions)	Full	Users can access and send jobs to the printer queue; manage print jobs; control settings for, set access permissions for, and change properties of the printer queue.

5.4 Navigating the Upgrade Utility

The following table describes how to navigate with the Upgrade utility. You can use either the keyboard or the mouse.

Table 5–1   Navigating the Upgrade Utility

To do this....	Select...
Select an option	Do one of the following: • Select the option with the mouse. • Use the Tab or arrow keys to highlight the option, and press the space bar to select it. • Press an accelerator key.
Move between options	Use the Tab or arrow keys.
Enter information in a field	Do one of the following: • Select the field and type the information. • Move to the field using the Tab or arrow keys and type the information.
Advance to the next screen	Select the Continue Button and press Enter or Return.
Return to the previous screen	Select the Back Button and press Enter or Return.
Exit from the Upgrade utility	Select the Exit Button and press Enter or Return.
Get information about the utility	Select the Help Button and press Enter or Return.

5.5 Upgrading a Primary Domain Controller

This table lists the steps for upgrading a Primary Domain Controller (PDC).

The sections following this table describe each step in detail.

Table 5–2   Steps for Upgrading a Primary Domain Controller

Step	Section
1.	Step 1: Enter Domain Information (Optional).
2.	Step 2: Enter PDC Information.
3.	Step 3: Log On to the PDC and Create SAM Database Files.
4.	Step 4: Select Objects to Upgrade.
5.	Step 5: Create and Edit Upgrade Reports for Selected Objects, including:
	— Users and groups
	— Shares
	— Security
6.	Step 6: Start and Track the Upgrade.

5.5.1 Start the Upgrade Utility

Install the Upgrade utility, as described in Chapter 4, Installing the Upgrade Utility, in this guide.

Then, start the Upgrade utility as follows:

1. From the OpenVMS account, change the default directory to SYS$UPDATE:

   ```
   $ SET DEFAULT SYS$UPDATE
   ```

2. At the system prompt, enter:

   ```
   $ @PWRK$V6UPGRADE
   ```

   The system then displays transport messages and prompts you for the role of the server you are upgrading. For example:

   ```
   Will this server be upgraded as a BDC? [no]
   ```

3. Enter No or press Return if you are upgrading the PDC. The destination may be either a PDC or a BDC.

   If you are upgrading a BDC, member server, or standalone server, refer to Section 5.6, Upgrading a Backup Domain Controller, Member Server, or Standalone Server, in this guide.

   The system displays the Program Initialization Dialog Box as shown in the following figure.

Figure 5–1   Program Initialization Dialog Box
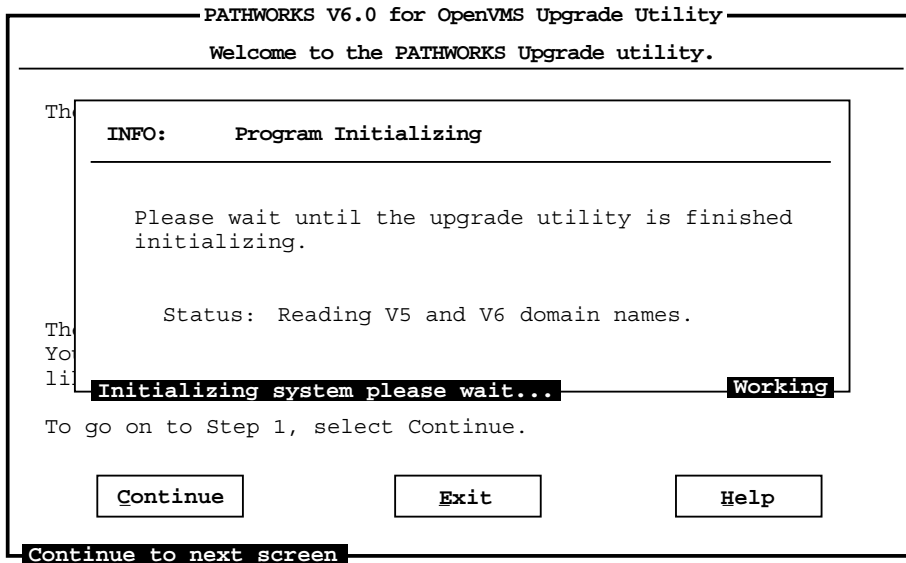
```
┌─────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────┐
│           Welcome to the PATHWORKS Upgrade utility.         │
│ ──────────────────────────────────────────────────────────  │
│  Th┌──────────────────────────────────────────────────┐     │
│     │  INFO:     Program Initializing                  │     │
│     │ ──────────────────────────────────────────────── │     │
│     │                                                  │     │
│     │    Please wait until the upgrade utility is finished │  │
│     │    initializing.                                 │     │
│     │                                                  │     │
│  Th │      Status:  Reading V5 and V6 domain names.    │     │
│  Yo │                                                  │     │
│  li └─Initializing system please wait...──── Working ──┘     │
│  To go on to Step 1, select Continue.                       │
│                                                             │
│    ┌───────────┐      ┌───────────┐     ┌───────────┐       │
│    │ Continue  │      │   Exit    │     │   Help    │       │
│    └───────────┘      └───────────┘     └───────────┘       │
└─Continue to next screen────────────────────────────────────┘
```

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When the program finishes initializing, the Upgrade utility displays the Main screen as shown in the following figure.

Figure 5–2 Main Screen

```
┌─────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ───────────────┐
│                Welcome to the PATHWORKS Upgrade utility.                  │
│ ───────────────────────────────────────────────────────────────────────  │
│                                                                           │
│   The PATHWORKS Upgrade utility comprises 6 steps:                        │
│                                                                           │
│     Step 1:  If changed domains enter new domain name.                    │
│     Step 2:  Enter PDC priviledged account information.                   │
│     Step 3:  Log on to the PDC and create SAM database files.             │
│     Step 4:  Select V5 objects to upgrade reports.                        │
│     Step 5:  Generate and review upgrade reports.                         │
│     Step 6:  Start and track the upgrade.                                 │
│                                                                           │
│   The Upgrade utility will step you through each screen.                  │
│   You can go back and review your work as often as you                    │
│   like until you begin the upgrade in Step 6.                             │
│                                                                           │
│   To go on to Step 1, select Continue.                                    │
│                                                                           │
│     ┌─────────────┐        ┌─────────────┐       ┌─────────────┐          │
│     │  Continue   │        │    Exit     │       │    Help     │          │
│     └─────────────┘        └─────────────┘       └─────────────┘          │
│   ┌───────────────────────────┐                                           │
│   │ Continue to next screen   │                                           │
└───┴───────────────────────────┴───────────────────────────────────────────┘
```

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4. Select the Continue button to go to the Domain Information screen.

5.5.2 Step 1: Enter Domain Information (Optional)

If you are not changing domains, select the Continue button to advance to the Primary Domain Controller Information screen.

The Domain Information screen allows you to change the domains.

───────────────────────── **Note** ─────────────────────────

If you are upgrading to a domain with an existing PDC, then your server will be upgraded as a BDC, as described in Chapter 3, Changing Server Roles and Domain Names, in this guide.

───

To change the domain information, follow these steps:

1. From the Main screen, select the Continue button. The Upgrade utility displays the Domain Information screen as shown in the following figure.

Figure 5–3   Domain Information Screen

```
┌──────────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility──────────────────┐
│                                                                              │
│        ───STEP 1: If changing domains, enter new domain name───              │
│                                                                              │
│   This screen is enabled if SAM database files don't exist.                  │
│   Listed below are the server's V5 and V6 domains. To change                 │
│   the domain name, enter the new name and then select the                    │
│   Domain button. Select the Continue button to continue.                     │
│                                                                              │
│   PATHWORKS V5 Domain name:    ALPHA_____       ┌──────────┐      │
│   PATHWWORKS V6 Domain name:   TESTDOM_____       │ Domain   │      │
│                                                            └──────────┘      │
│   ─────────────────────────────────────────────────────────────────────     │
│                                                                              │
│   Server Role:                                                               │
│        The V5 server role is: PDC      V5 Domain: ALPHA                       │
│        The V6 server role is: BDC      V6 Domain: TESTDOM                     │
│   ─────────────────────────────────────────────────────────────────────     │
│                                                                              │
│      ┌──────────┐          ┌──────────┐          ┌──────────┐                │
│      │ Continue │          │  Back    │          │  Help    │                │
│      └──────────┘          └──────────┘          └──────────┘                │
└──────────────────────────────────────────────────────────────────────────────┘
 To continue select the 'Continue' button.
```

VM-0103A-AI

2. Enter the domain name for the PATHWORKS LAN Manager Server after PATHWORKS V5 Domain Name.

3. Enter the domain name for the PATHWORKS Advanced Server after PATHWORKS V6 Domain Name.

4. Select Continue to advance to the Primary Domain Controller Information screen. Or, if you are changing domains, select the Domain button.

5. The system prompts you to confirm the domain name.

6. Select OK to confirm the name change and the system returns you to the Domain Information screen.

7. Select the Continue button to advance to the next screen.

5.5.3 Step 2: Enter PDC Information

If you are upgrading a BDC, the Primary Domain Controller Information screen allows you to enter PDC information, as shown in the following figure. If you are upgrading a PDC, this screen is disabled.

Figure 5–4 Primary Domain Controller Information Screen

```
┌──────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility───────────┐
│          STEP 2: Enter primary domain controller information      │
│          ─────────────────────────────────────────────────       │
│     This screen is only enabled if you are upgrading a backup     │
│     domain controller. If you are upgrading a primary select      │
│     the continue button. If you are upgrading a BDC, then enter   │
│     the following information and select the Continue button.     │
│                                                                   │
│                                                                   │
│  The PATHWORKS V6 Domain Name: TESTDOM_____     │
│                                                                   │
│  Primary Domain Controller's node name: _____     │
│                                                                   │
│  Username for Priviledged account: ADMINISTRATOR_____     │
│                                                                   │
│  Password for Priviledged account: _____     │
│                                                                   │
│  Re-enter password to verify: _____     │
│                                                                   │
│  ───────────────────────────────────────────                     │
│                                                                   │
│     ┌──────────┐        ┌──────────┐        ┌──────────┐          │
│     │ Continue │        │   Back   │        │   Help   │          │
│     └──────────┘        └──────────┘        └──────────┘          │
│  ▐Continue to next screen▌                                        │
└───────────────────────────────────────────────────────────────────┘
```

VM-0104A-AI

Select the Continue button to proceed to Section 5.5.4, Step 3: Log On to the PDC and Create SAM Database Files.

5.5.4 Step 3: Log On to the PDC and Create SAM Database Files

The Log On to PDC and Create SAM Database Files screen allows you to create SAM database files. To create the SAM database files, follow these steps:

1. From the Primary Domain Controller information screen, select the Continue button. The system displays the Log on to PDC and Create SAM Database Files screen shown in the following figure.

Figure 5–5 Log On to the PDC and Create Database Files Screen

```
┌─────────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ───────────────────┐
│                                                                                   │
│    ┌──────────────────────────────────────────────────────────────────┐          │
│    │ STEP 3: Log on to the PDC and create SAM database files │          │
│                                                                                   │
│                     -- LOG on to the PDC --                                       │
│                                                                                   │
│    If you are upgrading a BDC, you must log on to the PDC                          │
│    before the upgrade utility can continue. To log on                             │
│    to the PDC select the Logon button.                                            │
│                                                    ┌─────────────┐                 │
│                                                    │   Logon     │                 │
│    Log on status: Logged off                       └─────────────┘                 │
│    ───────────────────────────────────────────────────────────────                │
│                                                                                   │
│                     -- Create database files --                                   │
│    This option is enabled if SAM database files don't exist.                      │
│    When no database files exist, you must create new files                        │
│    before continuing. To create new database files based on                       │
│    the V6 domain, select the Create button.                                       │
│                                                    ┌─────────────┐                 │
│                                                    │   Create    │                 │
│    Database status: Initialized                    └─────────────┘                 │
│                                                                                   │
│    ┌──────────────┐        ┌─────────────┐         ┌─────────────┐                 │
│    │   Continue   │        │    Back     │         │    Help     │                 │
│    └──────────────┘        └─────────────┘         └─────────────┘                 │
│   ┌────────────────────────────┐                                                  │
│   │ Continue to next screen    │                                                  │
│   └────────────────────────────┘                                                  │
└───────────────────────────────────────────────────────────────────────────────────┘
```

VM-0105A-AI

2. Select the Create button to create the SAM database files. The system
    displays the Program Initialization dialog box and creates and initializes
    the database files. (You only need to do this once.)

Now you are ready to upgrade users, groups, and other server upgrade objects.
Begin by creating upgrade reports on each object and resolving conflicts in the
upgrade reports.

5.5.5 Step 4: Select Objects to Upgrade

To select objects to upgrade, follow these steps:

1. From the Log On to PDC and Create SAM Database Files screen, select
    the Continue button. The Upgrade utility displays the Select V5 Objects to
    Upgrade screen as shown in the following figure.

Figure 5–6 Select V5 Objects to Upgrade Screen

```
┌────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility────────────┐
│                                                                  │
│          STEP 4: Select V5 objects to upgrade to V6              │
│        ─────────────────────────────────────────────────        │
│   Select objects to upgrade. The objects listed below must       │
│   be upgraded in the order that they appear. Please make         │
│   your selections and the select the Continue button.            │
│                                                                  │
│        [X] Users and Groups                                      │
│                                                                  │
│        [X] Shares                                                │
│                                                                  │
│        [X] Miscellaneous                                         │
│                                                                  │
│        [X] Security                                              │
│                                                                  │
│   ──────────────────────────────────────────────────────        │
│                                                                  │
│     ┌─────────────┐        ┌─────────┐        ┌─────────┐        │
│     │  Continue   │        │  Back   │        │  Help   │        │
│     └─────────────┘        └─────────┘        └─────────┘        │
└──Continue to next screen─────────────────────────────────────────┘
```

VM-0106A-AI

2. Select the check boxes next to the objects that you want to upgrade. You
   can upgrade them one at a time or all at once.

3. Select the Continue button to advance to the next screen.

_____ **Note** _____

The Miscellaneous option refers to security parameters, such as
password length or age, and security on devices, such as printers
and CD-ROM drives. These settings are upgraded when you start the
upgrade if you selected the Miscellaneous option. You do not need to
create an upgrade report for the miscellaneous option.

_____

5.5.6 Step 5: Create and Edit Upgrade Reports for Selected Objects

This section describes how to create and edit upgrade reports for selected
objects including:

• Users and groups

• Shares

• Security

5.5.6.1 Create and Edit the User Report

To create and edit the User Upgrade report, follow these steps:

1. Select Users and Groups on the Select V5 Objects to Upgrade to V6 screen.

2. Select the Continue button. The Upgrade utility displays the Generate Upgrade Reports screen as shown in the following figure.

Figure 5–7 Generate Upgrade Reports Screen

```
┌────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────────┐
│                                                                        │
│                     STEP 5: Generate upgrade reports                   │
│   ─────────────────────────────────────────────────────────────────   │
│   Create the following reports in the order that they are displayed.   │
│   Please note that the report is used as input to the group report.    │
│   These reports are used to drive the upgrade process that's started   │
│   in Step 6.                                                           │
│                                                                        │
│   User report:     PWRK$LMUPGRADE:PWRK$UPG_USER.RPT      ┌──────┐┌──────┐
│                                                          │Create││ Edit │
│   Group report:    PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT     │Create││ Edit │
│                                                          │      ││      │
│   Share report:    PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT     │Create││ Edit │
│                                                          │      ││      │
│   Security report: PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP   │Create││ Edit │
│                                                          └──────┘└──────┘
│                                                                        │
│      ┌──────────┐          ┌──────────┐          ┌──────────┐          │
│      │ Continue │          │   Back   │          │   Help   │          │
│      └──────────┘          └──────────┘          └──────────┘          │
│   ████████████████████                                                 │
│   █ View/edit user report █                                            │
└────────────────────────────────────────────────────────────────────────┘
```

VM-0107A-AI

3. Select the Create button next to User report. The Upgrade utility creates the User report.

4. Select the Edit button next to User report.

   The system prompts you to select an editor to edit the report as shown in the following figure.

Figure 5–8 Select a Text Editor Dialog Box

```
┌─── PATHWORKS V6.0 for OpenVMS Upgrade Utility ───┐
│                                                   │
│         STEP 6: Start and track the upgrade       │
│      ──────────────────────────────────────       │
│   Fr┌──────────── Editor ────────────┐ upgrade    │
│   pr │                               │ will be    │
│   up │      Select a text editor     │ correct,   │
│   go │    ─────────────────────────  │ the        │
│   up │                               │            │
│   ┌─O│      ( ) LSE                  │ ┌────────┐  │
│   │Us│      ( ) TPU                  │ │ Start  │  │
│   │Gr│      (*) EDT                  │ └────────┘  │
│   │Sh│                              │ ▇▇▇▇▇▇▇▇▇   │
│   │Mi│ ┌──────┐ ┌────────┐ ┌──────┐ │ █Logfile█   │
│   │Se│ │  OK  │ │ Cancel │ │ Help │ │ ▇▇▇▇▇▇▇▇▇   │
│   │  │ └──────┘ └────────┘ └──────┘ │            │
│   │  └───────────────────────────────┘            │
│   ┌────────┐       ┌────────┐      ┌────────┐      │
│   │  Exit  │       │  Back  │      │  Help  │      │
│   └────────┘       └────────┘      └────────┘      │
└───────────────────────────────────────────────────┘
```

VM-0108A-AI

The Select a Text Editor dialog box shows a list of the text editors available on the system.

5. Select the editor you wish to use.

6. Select the OK button. The User report is displayed as shown in the following figure.

Figure 5–9 User Report Screen

```
\+++++++++++ User Report +++++++++++
\This report lists the 5.x users that will be upgraded to
\6.0 users. All of these users came from the V5 UAS file.
\This report is used as input to the Group Report, and as
\input to the USER upgrade.

\If there are users in this report that you don't want upgraded
\then just add a comment character (\) in front of the user
\name(s) or simply delete them from the report.

AA1                         \
ADMINISTRATOR               \
Guest                       \
LOQTUS                      \
OBRIEN                      \
SEAN                        \
SERVER1                     \
U1                          \
U10                         \
U11                         \
U2                          \
```

VM-0109A-AI

The User report lists the PATHWORKS LAN Manager users that will be upgraded to PATHWORKS Advanced Server users. If there are users in the report that you do not want upgraded, type a backslash (\) in front of the user name or delete the name. Refer to Appendix B, Resolving Log File Error Messages, in this guide for more information about how to edit User reports.

_____ **Note** _____

The User report is used as input to the Group report; therefore, you must edit the User report before you create the Group report.

_____

After you finish editing the User report, exit the editor and the system returns you to Step 5: Generate Upgrade Reports screen. Now you can create and edit the Group report.

5.5.6.2 Create and Edit the Group Report

To create and edit the Group report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next to Group report.

2. Select the Edit button next to Group report as shown in the following figure.

Figure 5–10 Generate Group Report Screen

```
┌─────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ───────────────┐
│                                                                          │
│                    STEP 5: Generate upgrade reports                      │
│   ────────────────────────────────────────────────────────             │
│   Create the following reports in the order that they are displayed.     │
│   Please note that the report is used as input to the group report.      │
│   These reports are used to drive the upgrade process that's started     │
│   in Step 6.                                                             │
│                                                                          │
│   User report:       PWRK$LMUPGRADE:PWRK$UPG_USER.RPT    │Create│ │ Edit │ │
│                                                                          │
│   Group report:      PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT   │Create│ │ Edit │ │
│                                                                          │
│   Share report:      PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT   │Create│ │ Edit │ │
│                                                                          │
│   Security report:  PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP  │Create│ │ Edit │ │
│                                                                          │
│                                                                          │
│       │ Continue │            │ Back │              │ Help │            │
│   ┌──────────────────────┐                                              │
│   │ View/edit share report│                                             │
└───┴──────────────────────┴──────────────────────────────────────────────┘
```

VM-0110A-AI

The system displays the Select a Text Editor screen as shown in Figure 5–8. The editor you chose previously is the default editor.

3. Select the OK button. The Group report is displayed, with a list of the PATHWORKS LAN Manager groups to be upgraded as shown in the following figure.

Figure 5–11   Group Report Screen

```
\+++++++++++ Group Report +++++++++++

\This report lists the V5 groups that will be upgraded to V6 groups.

\Below each group is a list of their members. This report is used as
\input into the actual Group upgrade.

\If there are groups in this report that you don't want upgraded then
\just add a comment character (\) in front of the group name(s) or
\simply delete them from the report. A group entry begins with a
\group name and ends with a "}"

ADMINS
USERS={
 AD1
 AD11
 AD2
 AD21
 AD22
 AD3
 AD31
 AD32
 AD41
 AD42
 AD51
 AD51A
 AD52
 AD52A
 AD61
 AD62
 AD71
 AD72
```

VM-0111A-AI

The Group report shows the PATHWORKS LAN Manager groups that will
be upgraded to PATHWORKS Advanced Server groups. Below each group
is a list of its members. If there are groups in the report that you do not
want upgraded, add a backslash (\) in front of the group name and all group
members, or delete the names from the report. To delete a member from a
group, add a backslash (\) in front of the member name, or delete the member
name. Refer to Appendix B, Resolving Log File Error Messages, in this guide
for more information about how to edit the Group reports.

After you finish editing the report, exit the editor and the system returns you
to the Generate Upgrade Reports screen. Now you can create and edit the
Shares upgrade report.

5.5.6.3 Create and Edit the Share Report

To create and edit the Share report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next to Share report.

2. Select the Edit button next to Share report, as shown in the following figure.

Figure 5–12 Generate Share Report Screen

```
┌──────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────────┐
│                                                                            │
│                    STEP 5: Generate upgrade reports                        │
│              ──────────────────────────────────────────                    │
│   Create the following reports in the order that they are displayed.       │
│   Please note that the report is used as input to the group report.        │
│   These reports are used to drive the upgrade process that's started       │
│   in Step 6.                                                               │
│                                                                            │
│   User report:       PWRK$LMUPGRADE:PWRK$UPG_USER.RPT      ┌──────┐┌──────┐ │
│                                                            │Create││ Edit │ │
│                                                            └──────┘└──────┘ │
│   Group report:      PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT     ┌──────┐┌──────┐ │
│                                                            │Create││ Edit │ │
│                                                            └──────┘└──────┘ │
│   Share report:      PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT     ┌──────┐┌──────┐ │
│                                                            │Create││ Edit │ │
│                                                            └──────┘└──────┘ │
│   Security report:   PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP   ┌──────┐┌──────┐ │
│                                                            │Create││ Edit │ │
│                                                            └──────┘└──────┘ │
│                                                                            │
│        ┌──────────┐          ┌──────────┐          ┌──────────┐            │
│        │ Continue │          │   Back   │          │   Help   │            │
│        └──────────┘          └──────────┘          └──────────┘            │
│  View/edit group report                                                    │
└────────────────────────────────────────────────────────────────────────────┘
```

VM-0112A-AI

The system displays the Select a Text Editor screen as shown in Figure 5–8. The editor you chose previously is the default editor selected.

3. Select the OK button. The Shares report is displayed with a list of the PATHWORKS LAN Manager shares to be upgraded, shown in the following figure.

Figure 5–13 Share Report Screen

```
\+++++++++++ Share Report +++++++++++
\This report lists the V6 Share Report. This report lists all personal shares
\contained in the V5 Sharefile. The share upgrade will convert all listed
\share in report to V6 shares.

\If there are shares in this report that you don't want upgraded then just
\add a comment character (\) in front of the share name or simply delete
\them from the report.

LKG21_04                        \LKG21_04
\OBRIEN                         \LOQTUS$DKA300:[OBRIEN]
TEST1                          \LOQTUS$DKA300:[TEST1]
VISUAL                         \LOQTUS$DKA300:[OBRIEN]
```

VM-0113A-AI

The Share report lists the PATHWORKS LAN Manager shares in the LAN Manager share file. The upgrade converts all PATHWORKS LAN Manager shares to PATHWORKS Advanced Server shares. If there are shares in the report that you do not want to upgrade, add a backslash (\) in front of the share name, or delete the name from the report. Refer to Appendix B, Resolving Log File Error Messages, in this guide, for more information about how to edit the Share report.

After you finish editing the Share report, exit the editor. The system returns you to the Generate Upgrade Reports screen. Now you can create and edit the Security report.

5.5.6.4 Create and Edit the Security Report

To create and edit the Security report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next to the Security report.

2.   Select the Edit button next to the Security report, as shown in the following
     figure.

Figure 5–14 Generate Security Report Screen

```
┌────────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────────┐
│                                                                            │
│                    STEP 5: Generate upgrade reports                        │
│        ─────────────────────────────────────────────────────────          │
│   Create the following reports in the order that they are displayed.       │
│   Please note that the report is used as input to the group report.        │
│   These reports are used to drive the upgrade process that's started       │
│   in Step 6.                                                               │
│                                                                            │
│   User report:      PWRK$LMUPGRADE:PWRK$UPG_USER.RPT      ┌Create┐ ┌ Edit ┐ │
│                                                                            │
│   Group report:     PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT     ┌Create┐ ┌ Edit ┐ │
│                                                                            │
│   Share report:     PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT     ┌Create┐ ┌ Edit ┐ │
│                                                                            │
│   Security report:  PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP  ┌Create┐ ┌ Edit ┐ │
│                                                                            │
│                                                                            │
│        ┌  Continue  ┐          ┌   Back   ┐          ┌  Help  ┐            │
│                                                                            │
│  ▐ View/edit group report ▌                                                │
└────────────────────────────────────────────────────────────────────────────┘
```
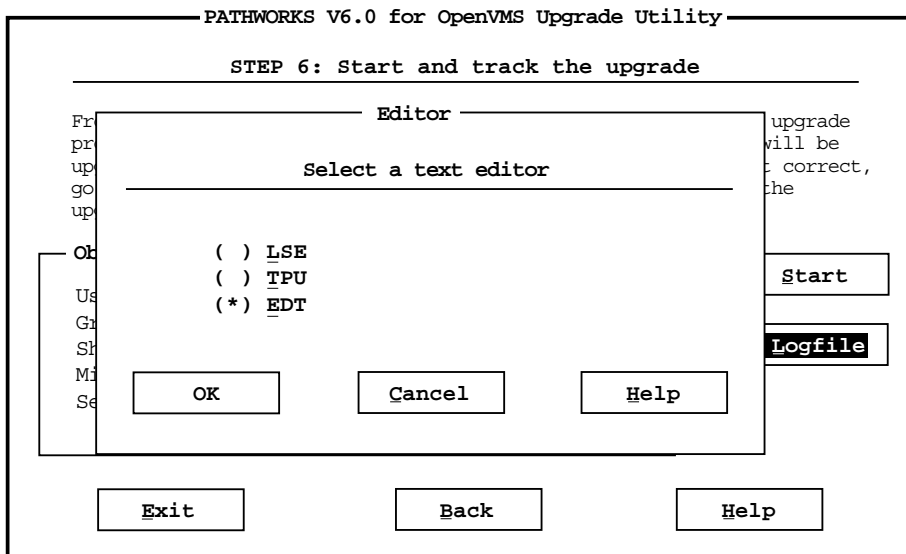
VM-0114A-AI

The system displays the Select a Text Editor screen as shown in
Figure 5–8. The editor you chose previously is the default editor selected.

3.   Select the OK button. The Security report is displayed with a list of the
     PATHWORKS LAN Manager share paths for each share that needs its
     security upgraded to PATHWORKS Advanced Server as shown in the
     following figure.

Figure 5–15 Security Report Screen

```
\+++++++++++ Security Report +++++++++++

\This is the V6 Security Report. This report lists the root directory
\of each share contained in the V5 Sharefile. The security upgrade
\will parse all files from each directory in the security report,
\converting V5 security to V6 security.

\If there are users in this report that you don't want upgraded
\then just add a comment character (\) in front of the directory
\name or simply delete them from the report.

PWRK$LMROOT:[LANMAN]
LOQTUS$DKA200:[PWRK$ROOT]
PWRK$LMROOT:[LANMAN.REPL.IMPORT.SCRIPTS]
\_LOQTUS$DKA300:[OBRIEN]
PWRK$LMROOT:[LANMAN.SHARES.WIN]
PWRK$LMROOT:[LANMAN.RPL]
PWRK$LMROOT:[LANMAN.RPL.RPLFILES]
_LOQTUS$DKA300:[TEST1]
PWRK$LMROOT:[LANMAN.ACCOUNTS.USERDIRS]
_LOQTUS$DKA200:[OBRIEN]
```

VM-0115A-AI

The Security report lists the root directory of each share contained in the
share report. The security upgrade checks all shares from each directory in the
Security report, converting LAN Manager security to Advanced Server security.
If there are directories in the report that you do not want to upgrade, then
add a backslash (\) in front of the directory name, or delete the name from the
report.

5.5.6.4.1 Security Upgrade Restrictions   Note the following security upgrade
restrictions:

- If a file is open during the security upgrade, the security access information
  on the file will be upgraded. You have the option of editing the Security
  report and upgrading these files later, after the files are closed. Or, you
  can enable the dynamic security upgrade when running the PATHWORKS
  Advanced Server. For information about how to enable dynamic security,
  refer to Section 5.3.1, About Upgrading Security, in this guide.

- If you have a group deny security ACE, the directory will not upgrade.

After you finish editing the security report, exit the editor. The system returns you to the Generate Upgrade Reports screen. Refer to Appendix B, Resolving Log File Error Messages, in this guide, for information about how to edit the Security report.

5.5.6.4.2 Upgrading Miscellaneous Components (Security Policy Parameters)
Security policy parameters are system-wide settings, such as password length or password expiration. These settings are upgraded when you start the upgrade if you selected the Miscellaneous option in the Select V5 Objects to Upgrade screen. If you did not select the Miscellaneous option, follow these steps:

1. From the Generate Upgrade Reports screen, select Back to return to the Select Objects to Upgrade screen.

2. From the Select Objects to Upgrade screen, select the Miscellaneous option. There is no upgrade report for the Miscellaneous option.

3. When all of the Upgrade reports are accurate, and you are ready to start the Upgrade, make sure the Miscellaneous option is selected on the Start and Track the Upgrade screen.

The security parameters will be upgraded automatically when you start the upgrade.

5.5.7 Step 6: Start and Track the Upgrade
When the upgrade reports are accurate, you can start and track the upgrade from the Start and Track the Upgrade screen as shown in the following figure.

Figure 5–16 Start and Track the Upgrade Screen

```
┌────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────────┐
│                                                                        │
│             STEP 6: Start and track the upgrade                        │
│       ─────────────────────────────────────────────────               │
│    From this screen you will start and track the progress of the upgrade│
│    process. All objects listed below that are marked 'selected' will be │
│    upgraded once you start the upgrade. If the selections are not correct,│
│    go back to the appropriate screen and make changes. To start the    │
│    upgrade process, select the Start button.                           │
│                                                                        │
│   ┌ Objects to Upgrade: ──────── Status ──────┐   ┌──────────────┐     │
│   │                                           │   │    Start     │     │
│   │  Users              Selected              │   └──────────────┘     │
│   │  Groups             Selected              │                        │
│   │  Shares             Selected              │   ┌──────────────┐     │
│   │  Miscellaneous      Selected              │   │   Logfile    │     │
│   │  Security           Selected              │   └──────────────┘     │
│   │                                           │                        │
│   └───────────────────────────────────────────┘                        │
│                                                                        │
│   ┌──────────────┐     ┌──────────────┐     ┌──────────────┐           │
│   │    Exit      │     │    Back      │     │    Help      │           │
│   └──────────────┘     └──────────────┘     └──────────────┘           │
│  ███████████████████████████████                                       │
│  █ Start the upgrade process  █                                        │
└────────────────────────────────────────────────────────────────────────┘
```

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All the objects you selected in the Select V5 Objects to Upgrade screen for
the upgrade should be listed 'Selected' on the Start and Track the Upgrade
screen.

Follow these steps to upgrade any objects not marked "Selected" in the Start
and Track the Upgrade Screen:

1. Select the Back button to return to the Select Objects to Upgrade screen.

2. From the Select Objects to Upgrade screen, select the missing object.

3. Create and edit the upgrade report if necessary.

──────────────────────────── **Warning** ────────────────────────────

Before you upgrade security on any files, you must upgrade all users
and groups. If you have users and groups that have not been upgraded,
when you upgrade security, the security ACEs that belong to these
users and groups will not be upgraded. The Upgrade utility displays a
warning as shown in the following figure.

──

Figure 5–17 Security Warning Screen
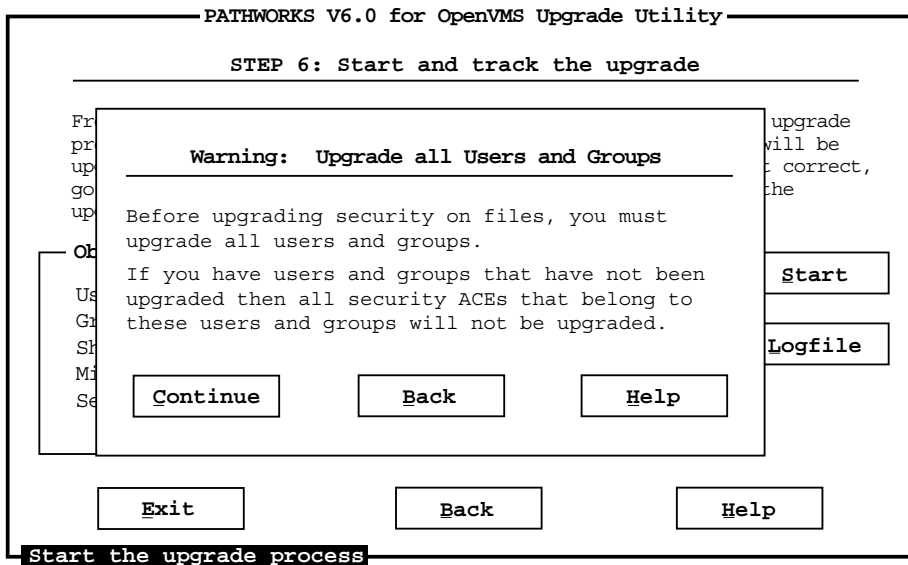
```
┌──────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────┐
│                                                                    │
│             STEP 6: Start and track the upgrade                    │
│         ─────────────────────────────────────────────             │
│                                                                    │
│   Fr┌───────────────────────────────────────────────┐ upgrade     │
│   pr│     Warning:   Upgrade all Users and Groups    │ill be       │
│   up│     ─────────────────────────────────────      │ correct,    │
│   go│                                                 │the          │
│   up│   Before upgrading security on files, you must  │             │
│     │   upgrade all users and groups.                 │             │
│   ┌O│                                                 │             │
│   │ │   If you have users and groups that have not been│   Start   │
│   │Us│   upgraded then all security ACEs that belong to │           │
│   │Gr│   these users and groups will not be upgraded.   │           │
│   │Sh│                                                 │Logfile     │
│   │Mi│   ┌──────────┐   ┌──────────┐   ┌──────────┐   │             │
│   │Se│   │ Continue │   │   Back   │   │   Help   │   │             │
│   │  │   └──────────┘   └──────────┘   └──────────┘   │             │
│   └──└───────────────────────────────────────────────┘             │
│                                                                    │
│      ┌──────────┐       ┌──────────┐       ┌──────────┐            │
│      │   Exit   │       │   Back   │       │   Help   │            │
│      └──────────┘       └──────────┘       └──────────┘            │
│   ▐▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▌                                 │
│   ▐ Start the upgrade process   ▌                                 │
└────────────────────────────────────────────────────────────────────┘
```

                                                    VM-0117A-AI

When you have accurate reports that accurately reflect your desired V6
environment, you can start the upgrade as follows:

1. On the Start and Track the Upgrade screen, select the Start button to
    activate the upgrade. The Start Options dialog box displays, as shown in
    the following figure.

Figure 5–18 Start Options Dialog Box
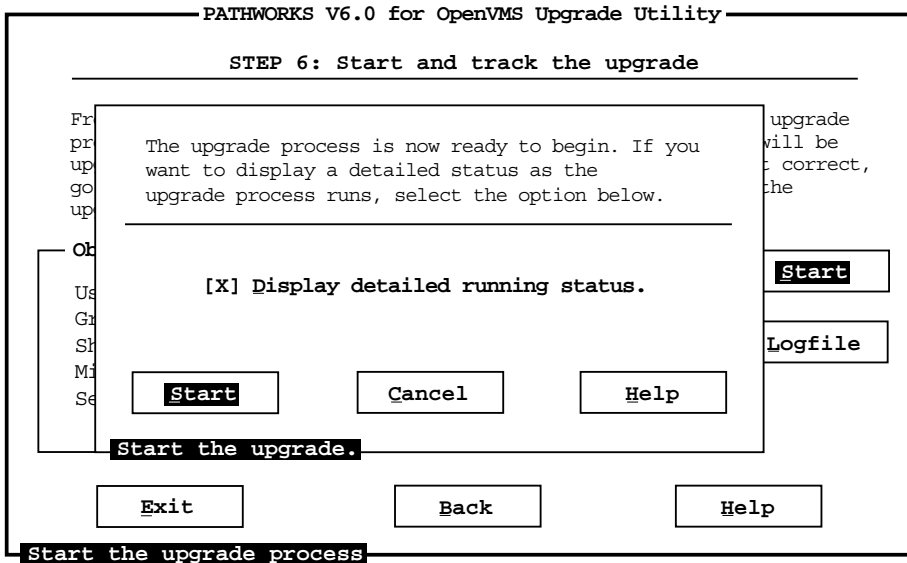
```
┌──────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────┐
│                                                                    │
│            STEP 6: Start and track the upgrade                     │
│         ────────────────────────────────────────────              │
│   Fr┌─────────────────────────────────────────────┐ upgrade       │
│   pr│  The upgrade process is now ready to begin. If you│will be   │
│   up│  want to display a detailed status as the     │ correct,    │
│   go│  upgrade process runs, select the option below.│the          │
│   up│                                               │             │
│     │─────────────────────────────────────────────│              │
│   O │                                               │   ┌────────┐ │
│   U │      [X] Display detailed running status.     │   │ Start  │ │
│   Gi│                                               │   └────────┘ │
│   Sh│                                               │   ┌────────┐ │
│   Mi│  ┌────────┐   ┌────────┐   ┌────────┐        │   │Logfile │ │
│   Si│  │ Start  │   │ Cancel │   │ Help   │        │   └────────┘ │
│     │  └────────┘   └────────┘   └────────┘        │             │
│     │ Start the upgrade.                            │             │
│     └─────────────────────────────────────────────┘              │
│   ┌────────┐           ┌────────┐           ┌────────┐            │
│   │ Exit   │           │ Back   │           │ Help   │            │
│   └────────┘           └────────┘           └────────┘            │
│  Start the upgrade process                                        │
└────────────────────────────────────────────────────────────────────┘
```

VM-0118A-AI

The Start Options Dialog Box allows you to choose the start options shown in the following table.

Table 5–3 Start Options

To...	Select the...
Display a running status of the upgrade	Display detailed running status option.
Start the upgrade	Start button.
Cancel the upgrade and return to the previous screen, where you can edit the upgrade report	Cancel button or enter Ctrl/Z.

──────────────── **Note** ────────────────

The Logfile button allows you display error messages logged during the upgrade, as described in the following section. Refer to Section 5.7, Troubleshooting, in this guide, for more information.

5.5.7.1 When the Upgrade Completes

When the upgrade is complete, the system displays a message that the upgrade completed successfully, and displays the status of the upgrade for each object. Upgrade status messages displayed are shown in the following table:

Table 5–4 Upgrade Status Messages

Upgrade Status	Meaning
Passed	Upgrade completed without warnings
Warnings	Upgrade encountered warnings or errors

If there are no warnings and the upgrade was successful, you can exit the Upgrade utility. Warnings may be informational, but you should review them before you exit the Upgrade utility.

If the upgrade partially or completely fails, see Section 5.7, Troubleshooting, in this guide.

5.6 Upgrading a Backup Domain Controller, Member Server, or Standalone Server

This section lists and describes the steps you use to upgrade a Backup Domain Controller (BDC), member server, or standalone server.

The sections following this table describe each step in detail

Table 5–5 Steps to Upgrading a Backup Domain Controller, Member Server, or Standalone Server

Step	Section
1.	Step 1: Enter Domain Information (Optional).
2.	Step 2: Enter PDC Information.
3.	Step 3: Log on to the PDC and Create SAM Database Files.
4.	Step 4: Select Objects to Upgrade.

Table 5–5 (Cont.)   Steps to Upgrading a Backup Domain Controller, Member Server, or Standalone Server

Step	Section
5.	Step 5: Create and Edit Upgrade Reports for Selected Objects , including:
	— Users and groups
	— Shares
	— Security
6.	Step 6: Start and Track the Upgrade.

5.6.1 Upgrading in a Wide Network Environment

When upgrading a PATHWORKS LAN Manager server as a backup domain controller in a domain where the primary domain controller is in a different TCP/IP subnet, you must ensure that the primary domain controller's address is in the LMHOST file on the PATHWORKS LAN Manager server. If this is the first time you activate the use of LMHOST, you must restart the file server.

If your domain configuration spans a wide area network, you must configure your servers running TCP/IP.

_____ **Note** _____

If you already installed the PATHWORKS Advanced Server server and it is running an upgrade as part of this installation, in addition to using the LMHOST file, you can choose to use WINS to locate the primary domain controller. Refer to the section on the PATHWORKS Configuration Manager in the PATHWORKS for OpenVMS (Advanced Server) _Server Administrator's Guide_ for further details on how to configure the WINS server on the network.

_____

5.6.2 Start the Upgrade Utility

Start the Upgrade utility, as follows:

1. From the OpenVMS account, change the default directory to SYS$UPDATE:

   ```
   $ SET DEFAULT SYS$UPDATE
   ```

2. At the system prompt, enter:

   ```
   $ @PWRK$V6UPGRADE
   ```

The system then displays transport messages and prompts you for the role of the server you are upgrading. For example:

```
Will this server be upgraded as a BDC? [no]
```

3. Enter Yes if you are upgrading a BDC, member server, or standalone server.

The system displays the Program Initialization Dialog Box and displays the Main screen as shown in the following figure.

Figure 5–19 Main Screen

```
┌────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────────┐
│                 Welcome to the PATHWORKS Upgrade utility.              │
│  ────────────────────────────────────────────────────────────────     │
│                                                                        │
│   The PATHWORKS Upgrade utility comprises 6 steps:                     │
│                                                                        │
│     Step 1:  If changed domains enter new domain name.                 │
│     Step 2:  Enter PDC priviledged account information.                │
│     Step 3:  Log on to the PDC and create SAM database files.          │
│     Step 4:  Select V5 objects to upgrade reports.                     │
│     Step 5:  Generate and review upgrade reports.                      │
│     Step 6:  Start and track the upgrade.                              │
│                                                                        │
│   The Upgrade utility will step you through each screen.               │
│   You can go back and review your work as often as you                 │
│   like until you begin the upgrade in Step 6.                          │
│                                                                        │
│   To go on to Step 1, select Continue.                                 │
│                                                                        │
│     ┌──────────┐           ┌──────────┐           ┌──────────┐         │
│     │ Continue │           │   Exit   │           │   Help   │         │
│     └──────────┘           └──────────┘           └──────────┘         │
│  Continue to next screen                                               │
└────────────────────────────────────────────────────────────────────────┘
```

VM-0102A-AI

4. Select the Continue button to go to the Domain Information screen.

5.6.3 Step 1: Enter Domain Information (Optional)

If you are not changing domains, select the Continue button to advance to the Primary Domain Controller Information screen.

The Domain Information Screen allows you to change domains.

To change domain information, follow these steps:

1. From the Main screen, select the Continue button. The Upgrade utility displays the Domain Information screen, as shown in the following figure.

Figure 5–20 Domain Information Screen

```
┌──────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility────────────┐
│                                                                    │
│         STEP 1: If changing domains, enter new domain name         │
│       ───────────────────────────────────────────────────         │
│                                                                    │
│    This screen is enabled if SAM database files don't exist.       │
│    Listed below are the server's V5 and V6 domains. To change      │
│    the domain name, enter the new name and then select the         │
│    Domain button. Select the Continue button to continue.          │
│                                                                    │
│    PATHWORKS V5 Domain name:   ALPHA_____                │
│                                                        ┌─────────┐  │
│    PATHWWORKS V6 Domain name:  TESTDOM_____   │ Domain  │  │
│                                                        └─────────┘  │
│   ──────────────────────────────────────────────────────────────   │
│   Server Role:                                                      │
│        The V5 server role is: PDC      V5 Domain: ALPHA             │
│        The V6 server role is: BDC      V6 Domain: TESTDOM           │
│   ──────────────────────────────────────────────────────────────   │
│     ┌──────────┐          ┌──────────┐          ┌──────────┐        │
│     │ Continue │          │  Back    │          │  Help    │        │
│     └──────────┘          └──────────┘          └──────────┘        │
│  To continue select the 'Continue' button.                         │
└────────────────────────────────────────────────────────────────────┘
```

VM-0103A-AI

2. Enter the domain name for the PATHWORKS LAN Manager server after the PATHWORKS Advanced Server Domain Name.

3. Enter the Domain name for the PATHWORKS Advanced Server.

4. If you are changing domains, select the Domain button or select Continue to advance to the next screen. The system prompts you to confirm the domain name change.

5. Select OK to confirm the name change.

6. Select the Continue button to advance to the next screen.

5.6.4 Step 2: Enter PDC Information

When you upgrade a BDC, the Upgrade utility requires that you make a connection to the PDC. This step lets you enter PDC information as follows:

1. From the Domain Information screen, select the Continue button. The Upgrade utility displays the Primary Domain Controller Information screen, as shown in the following figure.

Figure 5–21 Primary Domain Controller Information Screen

```
┌──────────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility──────────────────┐
│                                                                              │
│          STEP 2: Enter primary domain controller information                 │
│          ──────────────────────────────────────────────────                 │
│     This screen is only enabled if you are upgrading a backup                │
│     domain controller. If you are upgrading a primary select                 │
│     the continue button. If you are upgrading a BDC, then enter              │
│     the following information and select the Continue button.                │
│                                                                              │
│   The PATHWORKS V6 Domain Name: TESTDOM_____          │
│                                                                              │
│   Primary Domain Controller's node name: CULTURE_____          │
│                                                                              │
│   Username for Priviledged account: ADMINISTRATOR_____           │
│                                                                              │
│   Password for Priviledged account: ***********_____            │
│                                                                              │
│   Re-enter password to verify: ***********_____            │
│                                                                              │
│   ─────────────────────────────────────────────────────────────             │
│        ┌───────────┐         ┌───────────┐         ┌───────────┐            │
│        │ Continue  │         │   Back    │         │   Help    │            │
│        └───────────┘         └───────────┘         └───────────┘            │
│  ███Re-enter password to verify:███                                         │
└──────────────────────────────────────────────────────────────────────────────┘
```

VM-0119A-AI

2. Enter the PDC node name. If your PDC is an OpenVMS cluster, use the cluster alias.

3. Enter the Password for the privileged account.

4. Re-enter the Password to verify it.

5. Select the Continue button to advance to the next screen.

5.6.5 Step 3: Log on to the PDC and Create SAM Database Files

After you enter PDC information, follow these steps to log on to the PDC, as follows:

1. From the Primary Domain Controller Information screen, select the Continue button. The system displays the Log on to PDC and Create SAM Database files screen as shown in the following figure.

Figure 5–22 Log On to PDC and Create Database Files Screen

```
┌──────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility──────────────┐
│                                                                      │
│    STEP 3: Log on to the PDC and create SAM database files           │
│   ─────────────────────────────────────────────────────────         │
│                    -- LOG on to the PDC --                           │
│                                                                      │
│    If you are upgrading a BDC, you must log on to the PDC            │
│    before the upgrade utility can continue. To log on               │
│    to the PDC select the Logon button.                              │
│                                                    ┌─────────┐       │
│                                                    │  Logon  │       │
│    Log on status: Logged off                       └─────────┘       │
│   ─────────────────────────────────────────────────────────         │
│                    -- Create database files --                       │
│    This option is enabled if SAM database files don't exist.        │
│    When no database files exist, you must create new files          │
│    before continuing. To create new database files based on         │
│    the V6 domain, select the Create button.                         │
│                                                    ┌─────────┐       │
│    Database status: Initialized                    │ Create  │       │
│                                                    └─────────┘       │
│   ┌──────────┐          ┌─────────┐          ┌─────────┐            │
│   │ Continue │          │  Back   │          │  Help   │            │
│   └──────────┘          └─────────┘          └─────────┘            │
└─Continue to next screen──────────────────────────────────────────────┘
```

VM-0105A-AI

2. Select the Logon button to log on to the PDC.

3. Select the Create button to create the SAM database files. The system displays the Program Initialization dialog box and creates and initializes the database files.

Now you are ready to upgrade users, groups, and other server upgrade objects.

5.6.6 Step 4: Select Objects to Upgrade

To select objects to upgrade, follow these steps:

1. From the Log On to PDC and Create SAM Database Files screen, select the Continue button. The Upgrade utility displays the Select V5 Objects to Upgrade to V6 screen as shown in the following figure.

Figure 5–23 Select V5 Objects to Upgrade Screen

```
┌──────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility──────────────┐
│                                                                      │
│            STEP 4: Select V5 objects to upgrade to V6                │
│          ──────────────────────────────────────────────             │
│     Select objects to upgrade. The objects listed below must         │
│     be upgraded in the order that they appear. Please make           │
│     your selections and the select the Continue button.              │
│                                                                      │
│          [X] Users and Groups                                        │
│                                                                      │
│          [X] Shares                                                  │
│                                                                      │
│          [X] Miscellaneous                                           │
│                                                                      │
│          [X] Security                                                │
│                                                                      │
│          ────────────────────────────────────────────               │
│                                                                      │
│       ┌──────────┐          ┌──────────┐        ┌──────────┐         │
│       │ Continue │          │   Back   │        │   Help   │         │
│       └──────────┘          └──────────┘        └──────────┘         │
│ ▐Continue to next screen▌                                            │
└──────────────────────────────────────────────────────────────────────┘
```

VM-0106A-AI

2. Select the check boxes next to the objects that you want to upgrade. You can upgrade them one at a time or all at once.

3. Select the Continue button to advance to the next screen.

─────────────────────────── **Note** ───────────────────────────

The Miscellaneous option refers to security parameters, such as password length or age, and security on devices, such as printers and CD-ROM drives. These settings are upgraded when you start the upgrade if you selected the Miscellaneous option. You do not need to create an upgrade report for the miscellaneous option.

───

5.6.7 Step 5: Create and Edit Upgrade Reports for Selected Objects

This section describes how to create and edit upgrade reports for selected objects including:

- Users and groups

- Shares

- Security

5.6.7.1 Create and Edit the User Report

To create and edit the User report, follow these steps:

1. Select Users and Groups on the Select V5 Objects to Upgrade screen.

2. Select the Continue button. The Upgrade utility displays the Generate Upgrade Report screen as shown in the following figure.

Figure 5–24 Generate Upgrade Reports Screen

```
┌────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ──────────┐
│                                                                │
│               STEP 5: Generate upgrade reports                 │
│    ─────────────────────────────────────────────────────      │
│    Create the following reports in the order that they are displayed. │
│    Please note that the report is used as input to the group report. │
│    These reports are used to drive the upgrade process that's started │
│    in Step 6.                                                  │
│                                                                │
│    User report:      PWRK$LMUPGRADE:PWRK$UPG_USER.RPT   [Create] [Edit] │
│                                                                │
│    Group report:     PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT  [Create] [Edit] │
│                                                                │
│    Share report:     PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT  [Create] [Edit] │
│                                                                │
│    Security report:  PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP[Create] [Edit] │
│                                                                │
│                                                                │
│         [ Continue ]          [ Back ]          [ Help ]       │
│    ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄                                        │
│    █View/edit user report█                                     │
└────────────────────────────────────────────────────────────────┘
```

VM-0107A-AI
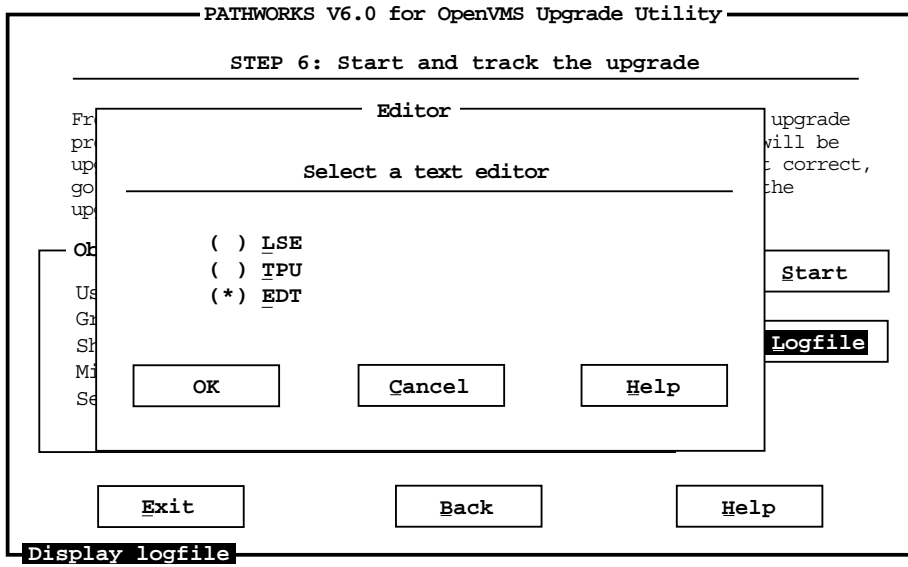
3. Select the Create button next to User report. The Upgrade utility creates the User report.

4. Select the Edit button next to User report.

The system prompts you to select an editor to edit the report as shown in the following figure.

Figure 5–25   Select a Text Editor Dialog Box

```
┌──────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────┐
│                                                                    │
│              STEP 6: Start and track the upgrade                   │
│        ──────────────────────────────────────────────             │
│   Fr┌───────────────── Editor ─────────────────┐ upgrade           │
│   pr│                                           │vill be            │
│   up│          Select a text editor            │t correct,         │
│   go│        ─────────────────────────         │the                │
│   up│                                          │                    │
│   O │        ( )  LSE                           │                    │
│     │        ( )  TPU                           │   ┌─────────┐     │
│   Us│        (*)  EDT                           │   │ Start   │     │
│   Gr│                                           │   └─────────┘     │
│   Sh│   ┌────────┐  ┌────────┐   ┌────────┐     │ ▐Logfile▌        │
│   Mi│   │   OK   │  │ Cancel │   │  Help  │     │                    │
│   Se│   └────────┘  └────────┘   └────────┘     │                    │
│     │                                           │                    │
│     └───────────────────────────────────────────┘                   │
│                                                                    │
│   ┌────────────┐      ┌────────────┐       ┌────────────┐          │
│   │   Exit     │      │   Back     │       │   Help     │          │
│   └────────────┘      └────────────┘       └────────────┘          │
│ ▐Display logfile▌                                                 │
└────────────────────────────────────────────────────────────────────┘
```

VM-0120A-AI

The Select a Text Editor dialog box shows a list of the text editors available on the system.

5. Select the editor you wish to use.

6. Select the OK button. The User report is displayed as shown in the following figure.

Figure 5–26 User Report Screen

```
\+++++++++++ User Report +++++++++++
\This report lists the 5.x users that will be upgraded to
\6.0 users. All of these users came from the V5 UAS file.
\This report is used as input to the Group Report, and as
\input to the USER upgrade.

\If there are users in this report that you don't want upgraded
\then just add a comment character (\) in front of the user
\name(s) or simply delete them from the report.

AA1                        \
ADMINISTRATOR              \
Guest                      \
LOQTUS                     \
OBRIEN                     \
SEAN                       \
SERVER1                    \
U1                         \
U10                        \
U11                        \
U2                         \
```

VM-0109A-AI

The User report lists the PATHWORKS LAN Manager users that will be
upgraded to PATHWORKS Advanced Server users. If there are users in the
report that you do not want upgraded, type a backslash (\) in front of the
user name or delete the name. Refer to Appendix B, Resolving Log File Error
Messages, in this guide, for more information about how to edit User reports.

––––––––––––––––––––––– **Note** –––––––––––––––––––––––

The User report is used as input to the Group report; therefore, you
must edit the User report before you create the Group report.

––

If you are upgrading a BDC into an existing domain that already has a PDC,
or if you are upgrading a standalone server to a BDC, all users in the User
report and groups in the Group report will be merged into the PDCs user/group
database. If there are users or groups you do not want to merge into the PDC,
comment them out of the Upgrade report.

After you finish editing the User report, exit the editor and the system returns
you to the Generating Upgrade Reports screen. Now you can create and edit
the Group report.

5.6.7.2 Create and Edit the Group Report

To create and edit the Group report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next to Group report.

2. Select the Edit button next to Group report as shown in the following figure.

Figure 5–27 Generate Group Report Screen

```
┌─────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ───────────┐
│                                                                   │
│              STEP 5: Generate upgrade reports                     │
│  ─────────────────────────────────────────────────────────────   │
│  Create the following reports in the order that they are displayed.│
│  Please note that the report is used as input to the group report.│
│  These reports are used to drive the upgrade process that's started│
│  in Step 6.                                                        │
│                                                                   │
│  User report:     PWRK$LMUPGRADE:PWRK$UPG_USER.RPT    ┌──────┐ ┌──────┐│
│                   ─────────────────────────────────── │Create│ │ Edit ││
│  Group report:    PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT   ┌──────┐ ┌──────┐│
│                   ─────────────────────────────────── │Create│ │ Edit ││
│  Share report:    PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT   ┌──────┐ ┌──────┐│
│                   ─────────────────────────────────── │Create│ │ Edit ││
│  Security report: PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP ┌──────┐ ┌──────┐│
│                                                       │Create│ │ Edit ││
│                                                                   │
│      ┌──────────┐          ┌──────────┐          ┌──────────┐    │
│      │ Continue │          │   Back   │          │   Help   │    │
│      └──────────┘          └──────────┘          └──────────┘    │
│  ▐ View/edit share report ▌                                      │
└───────────────────────────────────────────────────────────────────┘
```

VM-0110A-AI

The system displays the Select a Text Editor screen as shown in Figure 5–25. The editor you chose previously is the default editor.

3. Select the OK button. The Group report is displayed, with a list of the PATHWORKS LAN Manager groups to be upgraded as shown in the following figure.

Figure 5–28 Group Report Screen

```
\+++++++++++ Group Report +++++++++++
\This report lists the V5 groups that will be upgraded to V6 groups.

\Below each group is a list of their members. This report is used as
\input into the actual Group upgrade.

\If there are groups in this report that you don't want upgraded then
\just add a comment character (\) in front of the group name(s) or
\simply delete them from the report. A group entry begins with a
\group name and ends with a "}"

ADMINS
USERS={
 AD1
 AD11
 AD2
 AD21
 AD22
 AD3
 AD31
 AD32
 AD41
 AD42
 AD51
 AD51A
 AD52
 AD52A
 AD61
 AD62
 AD71
 AD72
```

VM-0111A-AI

The Group report shows the PATHWORKS LAN Manager groups that will
be upgraded to PATHWORKS Advanced Server groups. Below each group is
a list of its members. If there are groups in the report that you do not want
to upgrade, add a backslash (\) in front of the group name and all group
members, or delete the names from the report. To delete a member from a
group, add a backslash (\) in front of the member name or the member name.
Refer to Appendix B, Resolving Log File Error Messages, in this guide, for
more information about how to edit the Group report.

After you finish editing the report, exit the editor and the system returns you
to the Generate Upgrade Reports screen. Now you can create and edit the
Share report.

5.6.7.3 Create and Edit the Share Report

To create and edit the Share report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next to Share report.

2. Select the Edit button next to Shares report, as shown in the following figure.

Figure 5–29 Generate Share Report Screen

```
┌──────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ─────────────────┐
│                                                                             │
│                    STEP 5: Generate upgrade reports                         │
│            ─────────────────────────────────────────────────               │
│     Create the following reports in the order that they are displayed.      │
│     Please note that the report is used as input to the group report.       │
│     These reports are used to drive the upgrade process that's started      │
│     in Step 6.                                                              │
│                                                                             │
│     User report:      PWRK$LMUPGRADE:PWRK$UPG_USER.RPT      │Create││ Edit │ │
│                                                                             │
│     Group report:     PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT     │Create││ Edit │ │
│                                                                             │
│     Share report:     PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT     │Create││ Edit │ │
│                                                                             │
│     Security report:  PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP   │Create││ Edit │ │
│                                                                             │
│                                                                             │
│         ┌──────────────┐        ┌──────────────┐      ┌──────────────┐      │
│         │   Continue    │        │    Back      │      │    Help      │      │
│         └──────────────┘        └──────────────┘      └──────────────┘      │
│     ▗▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▖                                                   │
│     ▐ View/edit group report ▌                                              │
└─────────────────────────────────────────────────────────────────────────────┘
```

VM-0112A-AI

The system displays the Select a Text Editor screen as shown in Figure 5–25. The editor you chose previously is the default editor selected.

3. Select the OK button. The Share report is displayed with a list of the PATHWORKS LAN Manager shares to be upgraded, shown in the following figure.

Figure 5–30 Share Report Screen

```
\+++++++++++ Share Report +++++++++++
\This report lists the V6 Share Report. This report lists all personal shares
\contained in the V5 Sharefile. The share upgrade will convert all listed
\share in report to V6 shares.

\If there are shares in this report that you don't want upgraded then just
\add a comment character (\) in front of the share name or simply delete
\them from the report.

LKG21_04                       \LKG21_04
\OBRIEN                        \LOQTUS$DKA300:[OBRIEN]
TEST1                          \LOQTUS$DKA300:[TEST1]
VISUAL                         \LOQTUS$DKA300:[OBRIEN]
```

VM-0113A-AI

The Share report lists the PATHWORKS LAN Manager shares in the LAN
Manager share file. If there are shares in the report that you do not want to
upgrade, add a backslash (\) in front of the share name, or delete the name
from the report. Refer to Appendix B, Resolving Log File Error Messages, in
this guide, for more information about how to edit the Share report.

After you finish editing the report, exit the editor. The system returns you
to the Generate Upgrade Reports screen. Now you can create and edit the
Security report.

5.6.7.4 Create and Edit the Security Report

To create and edit the Security report, follow these steps:

1. From the Generate Upgrade Reports screen, select the Create button next
   to Security report.

2. Select the Edit button next to the Security report, as shown in the following
   figure.

Figure 5–31 Generate Security Report Screen

```
┌──────────────┤ PATHWORKS V6.0 for OpenVMS Upgrade Utility ├──────────────┐
│                                                                           │
│              STEP 5: Generate upgrade reports                             │
│ ────────────────────────────────────────────────────────────            │
│ Create the following reports in the order that they are displayed.        │
│ Please note that the report is used as input to the group report.         │
│ These reports are used to drive the upgrade process that's started        │
│ in Step 6.                                                                │
│                                                                           │
│ User report:      PWRK$LMUPGRADE:PWRK$UPG_USER.RPT      │Create│ │ Edit │ │
│                                                                           │
│ Group report:     PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT     │Create│ │ Edit │ │
│                                                                           │
│ Share report:     PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT     │Create│ │ Edit │ │
│                                                                           │
│ Security report:  PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RP   │Create│ │ Edit │ │
│                                                                           │
│      ┌──────────┐          ┌──────────┐        ┌──────────┐              │
│      │ Continue │          │   Back   │        │   Help   │              │
│      └──────────┘          └──────────┘        └──────────┘              │
│ ▌View/edit group report▐                                                  │
└───────────────────────────────────────────────────────────────────────────┘
```

VM-0114A-AI

> The system displays the Select a Text Editor screen as shown in
> Figure 5–25. The editor you chose previously is the default editor.

3. Select the OK button. The Security report is displayed with a list of the
    PATHWORKS LAN Manager share paths for each share that needs its
    security upgraded to PATHWORKS Advanced Server as shown in the
    following figure.

Figure 5–32 Security Report Screen

```
\+++++++++++ Security Report +++++++++++

\This is the V6 Security Report. This report lists the root directory
\of each share contained in the V5 Sharefile. The security upgrade
\will parse all files from each directory in the security report,
\converting V5 security to V6 security.

\If there are users in this report that you don't want upgraded
\then just add a comment character (\) in front of the directory
\name or simply delete them from the report.

PWRK$LMROOT:[LANMAN]
LOQTUS$DKA200:[PWRK$ROOT]
PWRK$LMROOT:[LANMAN.REPL.IMPORT.SCRIPTS]
\_LOQTUS$DKA300:[OBRIEN]
PWRK$LMROOT:[LANMAN.SHARES.WIN]
PWRK$LMROOT:[LANMAN.RPL]
PWRK$LMROOT:[LANMAN.RPL.RPLFILES]
_LOQTUS$DKA300:[TEST1]
PWRK$LMROOT:[LANMAN.ACCOUNTS.USERDIRS]
_LOQTUS$DKA200:[OBRIEN]
```

VM-0115A-AI

The Security report lists the root directory of each share contained in the
share report. The security upgrade checks all shares from each directory
in the Security report, converting PATHWORKS LAN Manager security to
PATHWORKS Advanced Server security. If there are directories in the report
that you do not want to upgrade, then add a backslash (\) in front of the
directory name, or delete the name from the report.

5.6.7.4.1 Security Upgrade Restrictions   Note the following security upgrade
restrictions:

- If a file is open during the security upgrade, the security access information
  on the file will be upgraded. You have the option of editing the Security
  report and upgrading these files later, after the files are closed. Or, you
  can enable the dynamic security upgrade when running the PATHWORKS
  Advanced Server. For information about how to enable dynamic security,
  refer to Section 5.3, How the Upgrade Utility Works, in this guide.

- If you have a group deny security ACE, it will not upgrade.

After you finish editing the report, exit the editor. The system returns you to the Generate Upgrade Reports screen. Refer to Appendix B, Resolving Log File Error Messages, in this guide, for information about how to edit the Security report.

5.6.7.4.2 Upgrading Miscellaneous Components (Security Policy Parameters)
Security policy parameters are system-wide settings, such as password length or password expiration. These settings are upgraded when you start the upgrade if you selected the Miscellaneous option in the Select V5 Objects to Upgrade screen. If you did not select the Miscellaneous option, follow these steps:

1. From the Generate Upgrade Reports screen, select Back to return to the Select Objects to Upgrade screen.

2. From the Select Objects to Upgrade screen, select the Miscellaneous option. There is no upgrade report for the Miscellaneous option.

3. When all of the Upgrade reports are accurate, and you are ready to start the Upgrade, make sure the Miscellaneous option is selected on the Start and Track the Upgrade screen.

The security parameters will be upgraded automatically when you start the upgrade.

5.6.8 Step 6: Start and Track the Upgrade

When the upgrade reports are accurate, you can start and track the upgrade from the Start and Track the Upgrade screen as shown in the following figure.

Figure 5–33 Start and Track the Upgrade Screen

```
┌──────────────PATHWORKS V6.0 for OpenVMS Upgrade Utility──────────────┐
│                                                                      │
│              STEP 6: Start and track the upgrade                     │
│         ──────────────────────────────────────────────              │
│   From this screen you will start and track the progress of the upgrade │
│   process. All objects listed below that are marked 'selected' will be  │
│   upgraded once you start the upgrade. If the selections are not correct,│
│   go back to the appropriate screen and make changes. To start the      │
│   upgrade process, select the Start button.                             │
│                                                                      │
│   ┌ Objects to Upgrade:──────── Status ─────┐      ┌──────────────┐  │
│   │                                         │      │    Start     │  │
│   │  Users               Selected           │      └──────────────┘  │
│   │  Groups              Selected           │                        │
│   │  Shares              Selected           │      ┌──────────────┐  │
│   │  Miscellaneous       Selected           │      │   Logfile    │  │
│   │  Security            Selected           │      └──────────────┘  │
│   │                                         │                        │
│   └─────────────────────────────────────────┘                        │
│                                                                      │
│    ┌──────────────┐      ┌──────────────┐      ┌──────────────┐       │
│    │     Exit     │      │     Back     │      │     Help     │       │
│    └──────────────┘      └──────────────┘      └──────────────┘       │
│ ▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄                                         │
│ █Start the upgrade process█                                          │
└──────────────────────────────────────────────────────────────────────┘
```

                                                            VM-0116A-AI

All the objects you selected in the Select V5 Objects to Upgrade screen for
the upgrade should be listed ′Selected′ on the Start and Track the Upgrade
screen.

Follow these steps to upgrade any objects not marked ′Selected′ in the Start
and Track the Upgrade screen:

1. Select the Back button to return to the Select Objects to Upgrade screen.

2. From the Select Objects to Upgrade screen, select the missing object.

3. Create and edit the upgrade report if necessary.

─────────────────────────── **Warning** ───────────────────────────

Before you upgrade security on any files, you must upgrade all users
and groups. If you have users and groups that have not been upgraded
when you upgrade security, the security ACEs that belong to these
users and groups will not be upgraded.

──

The Upgrade utility displays a warning as shown in the following figure.

Figure 5–34 Security Warning Screen
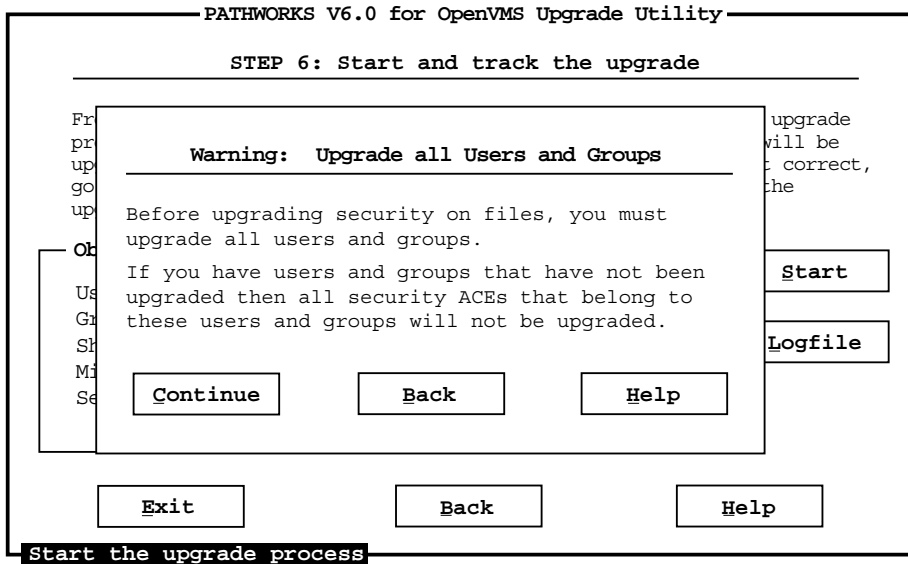

```
┌──────────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────────┐
│                                                                            │
│                    STEP 6: Start and track the upgrade                     │
│           ────────────────────────────────────────────────                │
│    Fr┌─────────────────────────────────────────────────┐ upgrade          │
│    pr │    Warning:  Upgrade all Users and Groups       │ will be          │
│    up │                                                 │ correct,         │
│    go │  ───────────────────────────────────────────    │ the              │
│    up │  Before upgrading security on files, you must   │                  │
│       │  upgrade all users and groups.                  │                  │
│     O │                                                 │ ┌──────────┐     │
│       │  If you have users and groups that have not been│ │  Start   │     │
│    Us │  upgraded then all security ACEs that belong to │ └──────────┘     │
│    Gr │  these users and groups will not be upgraded.   │                  │
│    Sh │                                                 │ ┌──────────┐     │
│    Mi │ ┌───────────┐  ┌──────────┐  ┌──────────┐       │ │ Logfile  │     │
│    Se │ │ Continue  │  │   Back   │  │   Help   │       │ └──────────┘     │
│       │ └───────────┘  └──────────┘  └──────────┘       │                  │
│       └─────────────────────────────────────────────────┘                 │
│                                                                            │
│    ┌───────────┐        ┌──────────┐         ┌──────────┐                  │
│    │   Exit    │        │   Back   │         │   Help   │                  │
│    └───────────┘        └──────────┘         └──────────┘                  │
│ ██Start the upgrade process██                                             │
└────────────────────────────────────────────────────────────────────────────┘
```

VM-0117A-AI

When you have accurate reports that accurately reflect your desired V6 environment, you can start the upgrade as follows:

1. On the Start and Track the Upgrade screen, select the Start button to activate the upgrade. The Start Options dialog box displays, as shown in the following figure.

Figure 5–35 Start Options Dialog Box
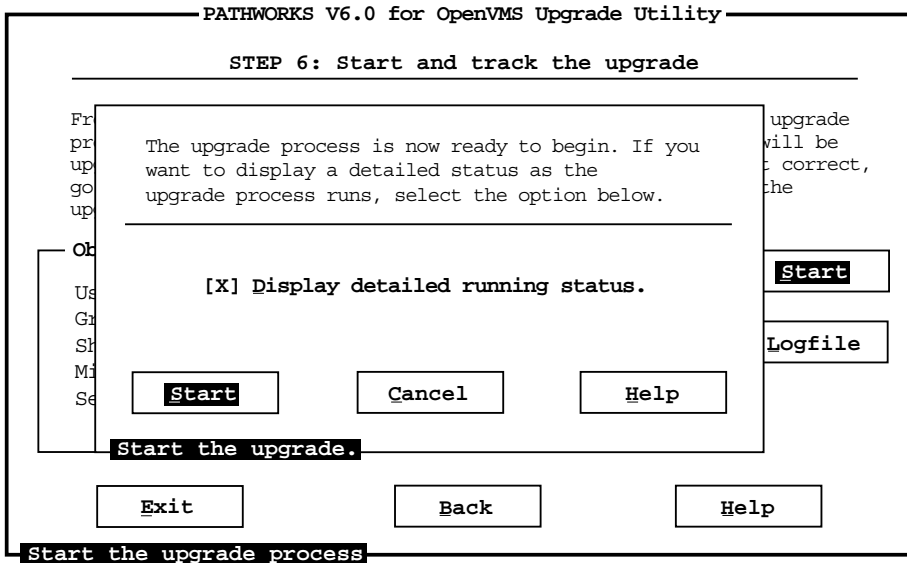
```
┌──────────── PATHWORKS V6.0 for OpenVMS Upgrade Utility ────────────┐
│                                                                     │
│              STEP 6: Start and track the upgrade                    │
│          ────────────────────────────────────────────              │
│                                                                     │
│    Fr┌────────────────────────────────────────────────┐  upgrade   │
│    pr│  The upgrade process is now ready to begin. If you│ will be  │
│    up│  want to display a detailed status as the        │ correct, │
│    go│  upgrade process runs, select the option below.  │ the      │
│    up│                                                   │          │
│      │  ──────────────────────────────────────────────  │          │
│    Ob│                                                   │          │
│      │       [X] Display detailed running status.        │  Start   │
│    Us│                                                   │          │
│    Gr│                                                   │          │
│    Sh│  ┌────────┐     ┌────────┐     ┌────────┐         │ Logfile  │
│    Mi│  │ Start  │     │ Cancel │     │  Help  │         │          │
│    Se│  └────────┘     └────────┘     └────────┘         │          │
│      │ Start the upgrade.                                │          │
│      └────────────────────────────────────────────────┘          │
│    ┌──────────┐          ┌──────────┐          ┌──────────┐        │
│    │   Exit   │          │   Back   │          │   Help   │        │
│    └──────────┘          └──────────┘          └──────────┘        │
│    Start the upgrade process                                       │
└─────────────────────────────────────────────────────────────────┘
```

VM-0118A-AI

The Start Options Dialog Box allows you to choose the start options shown in
the following table:

Table 5–6 Start Options

To...	Select the...
Display a running status of the upgrade	Display detailed running status option.
Start the upgrade	Start button.
Cancel the upgrade and return to the previous screen, where you can edit the upgrade report	Cancel button or enter Ctrl/Z.

───────────────────────── **Note** ─────────────────────────

The Logfile button allows you display error messages logged during
the upgrade, as described in the following section. Refer to Section 5.7,
Troubleshooting, for more information.

──

5.6.8.1 When the Upgrade Completes

When the upgrade is complete, the system displays a message that the upgrade completed successfully, and displays the status of the upgrade for each object. Upgrade status messages displayed are shown in the following table.

Table 5–7 Upgrade Status Messages

Upgrade Status	Meaning
Passed	Upgrade completed without warnings
Warnings	Upgrade encountered warnings or errors

If there are no warnings and the upgrade was successful, you can exit the Upgrade utility. Warnings may be informational, but you should review them before you exit the Upgrade utility.

If the upgrade partially or completely fails, see Section 5.7, Troubleshooting, in this guide.

5.7 Troubleshooting

This section describes how to troubleshoot:

*   Problems that may occur during the upgrade.

*   Problems that may occur after the upgrade.

5.7.1 Resolving Problems During the Upgrade

If the upgrade partially or completely fails, the system returns you to the Start and Track the Upgrade screen and prompts you to display the log file. Select the Logfile button to display messages logged during the upgrade. You can also display the log file at the DCL prompt as described in Appendix B, Resolving Log File Error Messages, in this guide.

Figure 5–36 Log File Screen

```
5-Feb-97   12:54:24   *************************************************************
*****
5-Feb-97   12:54:25   Starting V6 upgrade initialization
5-Feb-97   12:54:25
5-Feb-97   12:54:31   V5Domain:   ALPHA   V6Domain:   ALPHA
5-Feb-97   12:54:34
5-Feb-97   12:54:46   *************************************************************
*****
5-Feb-97   12:54:46   Determining V6 Server role:
5-Feb-97   12:54:46
5-Feb-97   12:54:46   The V5 server role is a PDC in domain ALPHA.
5-Feb-97   12:54:46   The V6 server role is a PDC in domain ALPHA.
5-Feb-97   12:54:46
5-Feb-97   12:54:46   Determining server role succeeded.
5-Feb-97   12:54:55   *************************************************************
*****
5-Feb-97   12:55:05   Creating SAM databases...
5-Feb-97   12:55:17   The SAM database was successfully created.
5-Feb-97   12:55:21   Creating ACL database...
5-Feb-97   12:55:25   Successfully created new ACL store: PWRK$LMROOT:[LANMAN.DATA
FILES]ACL
5-Feb-97   12:55:28   Creating Sharefile...
5-Feb-97   12:55:25   Successfully created new sharefile: PWRK$LMROOT:[LANMAN]SHARE
FILE.
```

VM-0121A-AI

See Appendix B, Resolving Log File Error Messages, in this guide, for more information on troubleshooting.

5.7.2 Resolving Problems After the Upgrade

After the upgrade, you may need to repeat the upgrade process if any of the following problems occur:

- The PATHWORKS Advanced Server will not start.

- A component failed to upgrade or failed to upgrade properly.

If you need to repeat the upgrade, delete the PATHWORKS Advanced Server database files created by the Upgrade utility, described in Appendix A, Files Created by the Upgrade Utility.

6

Completing the Migration

6.1 Introduction

After you upgrade the PATHWORKS Advanced Server information, you can
complete the migration. This section includes the following topics:

- **Scheduling an Interruption of Services** — explains why you must
  schedule downtime prior to installing the PATHWORKS Advanced Server
  software.

- **Before You Install the PATHWORKS Advanced Server Software** —
  describes how to enable a Roll Back procedure in the event a server is not
  upgraded properly.

- **Installing and Starting the PATHWORKS Advanced Server
  Software** — describes how to install the PATHWORKS Advanced
  Server software.

- **Setting Up Licensing** — describes how to set up licensing for the
  PATHWORKS Advanced Server.

6.2 Scheduling an Interruption of Services

When you install the PATHWORKS Advanced Server, it will shut down the
PATHWORKS LAN Manager server and replace PATHWORKS V5 LAN
Manager images with PATHWORKS Advanced Server images. Therefore,
you must schedule downtime on the server prior to installation to avoid an
unexpected interruption of services.

6.3 Before You Install the PATHWORKS Advanced Server Software

PATHWORKS Advanced Server provides a Roll Back procedure that allows you to restore the PATHWORKS LAN Manager server database if the server is not upgraded properly. To enable the Roll Back procedure, you must answer Yes to the following prompt during the VMSINSTAL procedure:

```
Do you want to preserve the V5 (LAN Manager) environment [Yes]?  Yes
```

The system will prompt you for a location to store the saveset the procedure will create. The Roll Back procedure needs this saveset to restore the LAN Manager environment.

Refer to the PATHWORKS for OpenVMS *Server Installation and Configuration Guide* for more information on the VMSINSTAL procedure.

6.4 Installing and Starting the PATHWORKS Advanced Server Software

After you have upgraded server information, you can install and configure the PATHWORKS Advanced Server software.

Start the PATHWORKS Advanced Server using the SYS$STARTUP:PWRK$STARTUP.COM procedure, also described in the PATHWORKS for OpenVMS *Server Installation and Configuration Guide*.

6.4.1 Starting PDCs

After completing the installation and configuration, make sure you start the PATHWORKS Advanced Server on the PDC first.

6.4.2 Starting BDCs

After completing the installation and configuration, follow these steps:

1. On the domain PDC, remove this PDC's listenname (computer name). Or, if the node is a member of a VMScluster, remove the PATHWORKS cluster alias name from the SERVERS group, if present.

   If you do not remove the BDC's listenname from the SERVERS group on the PDC, the PDC will log the following warning message:

```
NetLogon has detected two machine accounts for server
<servername>.  The server can be either a Windows NT Server that
is a member of the domain or the server can be a LAN Manager
server with an account in the SERVERS global group.  It cannot
be both."
```

If the BDC was previously a PATHWORKS LAN Manager BDC or member server in this domain, a special user account (often referred to as the machine account) is created and made a member of the SERVERS group. This account is used for account replication purposes. Now that the server is running PATHWORKS Advanced Server, a different method of domain membership is utilized. To allow the PATHWORKS Advanced Server BDC to operate properly in the domain, you must remove this BDC's machine account from the SERVERS group on the PDC.

For example, if the BDC computername is DOROTHY, and the PDC is running PATHWORKS Advanced Server, remove this name from the SERVERS group as follows:

```
\\domain\server> MODIFY GROUP SERVERS/REMOVE=DOROTHY
```

2. Start PATHWORKS Advanced Server on the BDC.

6.5 Setting Up Licensing

To set up licensing for the PATHWORKS Advanced Server, follow these steps:

1. Register and load client-access (PWLMXXXCA06.00) license PAKs, as described in the *OpenVMS License Management Utility Manual*.

2. Configure automatic license upgrade. (Optional)

3. Use the License Manager to allocate licenses to clients or to server-based licensing, as described in the Advanced Server for OpenVMS *Guide to Managing Advanced Server Licenses*.

6.5.1 How to Configure Automatic License Upgrade

By default, the PATHWORKS license server does not perform license upgrades. To configure a PATHWORKS License Server to upgrade PATHWORKS LAN Manager licenses to PATHWORKS Advanced Server licenses, edit the PATHWORKS license server start-up command file SYS$STARTUP:PWRK$LICENSE_S_START.COM to include the following logical name definition:

```
$ DEFINE PWRK$LS_V6_ACCESS_UPGRADE  1
```

Define this logical before the following command:

```
$ RUN SYS$SYSTEM:PWRK$LICENSE_SERVER
```

If the PWRK$LS_V6_ACCESS_UPGRADE logical is undefined or defined to be zero (0), the PATHWORKS license server will not upgrade licenses. If the PWRK$LS_V6_ACCESS_UPGRADE logical is defined to be any numeric value other than zero, clients requesting assignment or verification of PATHWORKS LAN Manager licenses will have their licenses upgraded to PATHWORKS Advanced Server licenses, provided sufficient PATHWORKS Advanced Server licenses exist.

When an upgrade operation occurs, the PATHWORKS license server logs both the assignment of the PATHWORKS Advanced Server license and the name of the license returned to the client to the following PATHWORKS license server log file:

```
PWRK$Logs:PWRK$License_Server_node-name.LOG
```

Be aware that when an equivalent PATHWORKS Advanced Server license is returned to the client, the name of the license assigned (PWLMXXXCA06.00) will not match the name of the license returned to the client. For example, if a client requests assignment of a PWLMXXXFP05.00 license (a PATHWORKS LAN Manager license) from the PATHWORKS license server, the PATHWORKS license server will upgrade the request to a PATHWORKS Advanced Server license and assign a PWLMXXXCA06.00 license (assuming one is available). However, the name of the license returned to the client will be PWLMXXXFP06.00.

The reason for this difference is that the client will only accept licenses of the type requested (such as PWLMXXXFP*mm.nn*) with the requested or higher version number (that is, 05.00 or higher). To get the client to accept an equivalent PATHWORKS Advanced Server license, the PATHWORKS license server returns a different name than that assigned.

From the client's perspective, the license assigned is PWLMXXXFP06.00 and the client will accept that. From the PATHWORKS license server's perspective (as displayed by the PATHWORKS License Manager), the client was assigned a PWLMXXXCA06.00 license. For more information on the names of the licenses returned to clients due to upgrade operations, see the Advanced Server for OpenVMS *Guide to Managing Advanced Server Licenses*.

7

Verifying the Migration

7.1 Introduction

After the migration, you should verify that the server is working properly. This section describes how to verify the migration, and includes the following topics:

- **Displaying Domain Servers and Users** — describes how to use the ADMINISTER command to display the domain and the users.

- **Displaying Services** — describes how to use the ADMINISTER command to check services.

- **Verifying Client Access** — describes how to verify client access to shares.

- **Verifying Printer Access** — describes how to verify client access to printers.

- **Displaying Event Logs** — describes how to use the ADMINISTER command to check event logs.

- **How to Roll Back to PATHWORKS LAN Manager** — describes the PATHWORKS Advanced Server Roll Back procedure to use for restoring the PATHWORKS LAN Manager environment if the server was not upgraded properly.

For more information about how to perform these administrative tasks, refer to the PATHWORKS for OpenVMS (Advanced Server) *Server Administrator's Guide*.

7.2 Displaying Domain Servers and Users

To ensure the server is set up in the domain properly, start the server, then use the ADMINISTER commands to display the domain and the users as follows:

1. At the DCL prompt, enter the ADMINISTER command:

```
$ ADMINISTER
LANDOFOZ\\TINMAN>
```

The prompt indicates the current domain name and local server.

2. To check all upgraded servers and domain member computers, enter the SHOW COMPUTERS command:

```
LANDOFOZ\\TINMAN> SHOW COMPUTERS

Computers in domain "LANDOFOZ":

Computer          Type                  Description
----------------  --------------------  ------------------
[PD] TINMAN       OpenVMS 3.51 Primary  PATHWORKS V6.0 for
                                        OpenVMS (Advanced
                                        Server)

Total of 1 computer
```

3. To display the user account information for the domain, enter the SHOW USERS command:

```
LANDOFOZ\\TINMAN> SHOW USERS

User Name         Full Name       Type    Description
----------------  --------------  ------  ----------------
Administrator                     Global  Built-in account
                                          for administering
                                          the domain

Guest                             Global  Built-in account
                                          for guest access
                                          to the domain

LION                              Global

Total of 3 user accounts
```

4. To display the list of groups defined for a domain, enter the SHOW GROUPS command:

```
LANDOFOZ\\TINMAN> SHOW GROUPS

Groups in domain "LANDOFOZ"
```

```
Group Name          Type         Description
------------------  ------       ---------------------------
Account Operators   Local        Members can administer domain
                                 user and group accounts
Administrators      Local        Members can fully administer
                                 the domain
Backup Operators    Local        Members can bypass file
                                 security to back up files
Domain Admins       Global       Designated administrators of
                                 the domain
Domain Guests       Global       All domain guests
Domain Users        Global       All domain users
Guests              Local        Users granted guest access
                                 to the domain
Print Operators     Local        Members can administer
                                 domain printers
Replicator          Local        Supports file replication in
                                 a domain
Server Operators    Local        Members can administer domain
                                 servers
Users               Local        Ordinary users
Lion                Local        Ordinary users

Total of 11 groups
```

5. **To display the members of a group, enter the SHOW GROUPS command:**

```
LANDOFOZ\\TINMAN> SHOW GROUPS/MEMBERS

Groups in domain "LANDOFOZ":

Group Name           Type      Description
-------------------  ------    ---------------------------
Account Operators    Local     Members can administer domain
                               user and group accounts

    Members: (No members)

Administrators       Local     Members can fully administer the
                               domain

    Members:  [US] Administrator, [GR] Domain Admins

Backup Operators     Local     Members can bypass file security
                               to back up files

    Members: (No members)

Domain Admins        Global    Designated administrators of the
                               domain

    Members: [US] Administrator

Domain Guests        Global    All domain guests

    Members: [US] Guest
```

```
Domain Users          Global    All domain users

    Members: [US] Administrator

Guests                Local     Users granted guest access to the
                                domain

    Members: [GR] Domain Guests

Print Operators       Local     Members can administer domain
                                printers

    Members: (No members)

Replicator            Local     Supports file replication in a
                                domain

    Members: (No members)

Server Operators      Local     Members can administer domain
                                servers

    Members: (No members)

Users                 Local     Ordinary users

    Members: [GR] Domain Users

Total of 11 groups
```

6. **To display shared resource availability, enter the SHOW SHARES command:**

   ```
   LANDOFOZ\\TINMAN> SHOW SHARES

   Shared resources on server "LANDOFOZ":

   Name                    Type            Description
   --------------------    -------------   -----------------------
   NETLOGN                 Directory       Logon Scripts Directory
   PWUTIL                  Directory       PATHWORKS Client-based
                                           Utilities
   USERS                   Directory       Users Directory

   Total of 3 shares
   ```

   To add a share or for detailed information on procedures using the
   ADMINISTER command, refer to the PATHWORKS for OpenVMS (Advanced
   Server) *Server Administrator's Guide*.

   If you encounter error messages using these commands, refer to the Advanced
   Server for OpenVMS *Commands Reference Manual* for information on
   command syntax.

7.3 Displaying Services

To check services, enter the following ADMINISTER commands:

1. To display status information about services on the server, enter the SHOW
   SERVICES command:

```
LANDOFOZ\\TINMAN> SHOW SERVICES

Services on server "LANDOFOZ":

Service         Status
-------------   ------------
ALERTER         Started
BROWSER         Started
EVENTLOG        Started
NETLOGON        Started
NETRUN
NVALERT
REPLICATOR
SERVER          Started
TIMESOURCE

Total of 9 services
```

2. To display print queues defined on the server, enter the SHOW PRINT
   QUEUES command:

```
LANDOFOZ\\TINMAN> SHOW PRINT QUEUES

Name         Jobs  Status   Printer/Routing   Description
-----------  ----  -------  ----------------  ----------------
BRUCE_PRNT    0    PAUSED   LRA0:GENERIC
GLENDA        0    PAUSED   BRUCE_PRNT
PARSIFAL      0    PAUSED   OPA0GENERIC       The Borg Printer
```

7.4 Verifying Client Access

To verify client access, log on from a client computer as a user and access
shares that were upgraded from PATHWORKS LAN Manager.

7.5 Verifying Printer Access

To verify printer access, connect to the printer from a client computer that has
access to the share and print a file.

7.6 Displaying Event Logs

To display PATHWORKS event logs for access violation errors, enter the
ADMINISTER command as follows:

```
LANDOFOZ\\TINMAN> SHOW EVENTS/TYPE=SYSTEM/FULL

T Date     Time         Source    Category  Event  User  Computer
- -------  -----------  --------  --------  -----  ----  --------
I 01/21/97 04:18:19 PM Eventlog  None      6005   N/A   LANDOFOZ
W 01/21/97 04:18:29 PM SERVER    None      6123   N/A   LANDOFOZ
W 01/21/97 04:18:43 PM BROWSER   None      6033   N/A   LANDOFOZ
W 01/21/97 04:19:06 PM BROWSER   None      6033   N/A   LANDOFOZ
I 01/22/97 07:26:29 AM Eventlog  None      6005   N/A   LANDOFOZ
```

Refer to the PATHWORKS for OpenVMS (Advanced Server) *Server
Administrator's Guide* for more information about the event logging feature of
PATHWORKS Advanced Server.

7.7 How to Roll Back to PATHWORKS LAN Manager

PATHWORKS Advanced Server provides a Roll Back procedure that allows you
to restore the PATHWORKS LAN Manager server environment if the server
was not upgraded properly. The VMSINSTAL procedure allows you to specify a
location to store the saveset that the Roll Back procedure will create. Refer to
the PATHWORKS for OpenVMS *Server Installation and Configuration Guide*
for information on the VMSINSTAL procedure.

When the Roll Back procedure is activated, it de-installs PATHWORKS
Advanced Server and restores the PATHWORKS LAN Manager environment
and information as it was preserved when PATHWORKS Advanced Server was
installed.

After installing PATHWORKS Advanced Server, use the following procedure to
roll back to PATHWORKS LAN Manager:

1. Enter the following command at the DCL prompt:

   ```
   $ @SYS$UPDATE:PWRK$ROLLBACK.COM
   ```

2. Reboot the system.

3. Run the PWRK$CONFIG.COM procedure, as described in the
   PATHWORKS for OpenVMS *Server Installation and Configuration
   Guide*.

4. Restart the PATHWORKS LAN Manager server.

A
Files Created by the Upgrade Utility

A.1 Introduction

This section lists the files created by the Upgrade utility including:

- **PATHWORKS Advanced Server Database Files** — lists the PATHWORKS Advanced Server database files.

- **Upgrade Files** — lists the files created by the Upgrade utility.

A.2 PATHWORKS Advanced Server Database Files

The Upgrade utility creates the following PATHWORKS Advanced Server database files. These files are specific to the server and domain.

- PWRK$LMROOT:[LANMAN.DATAFILES]ACL

- PWRK$LMROOT:[LANMAN.DATAFILES]BUILTIN

- PWRK$LMROOT:[LANMAN.DATAFILES]CHGLOG.LMX

- PWRK$LMROOT:[LANMAN.DATAFILES]LSA

- PWRK$LMROOT:[LANMAN.DATAFILES]SHAREDB

- PWRK$LMROOT:[LANMAN.DOMAINS]*domain_name*

Refer to the PATHWORKS for OpenVMS *Server Installation and Configuration Guide* for more information about files installed by PATHWORKS Advanced Server.

A.3 Upgrade Files

This section describes the files created by the Upgrade utility:

- Upgrade utility report files

- Upgrade utility log file

- Upgrade database and domain files

A.3.1 Upgrade Utility Report Files

The Upgrade utility creates the following Upgrade report files:

- PWRK$LMUPGRADE:PWRK$UPG_USER.RPT

- PWRK$LMUPGRADE:PWRK$UPG_GROUP.RPT

- PWRK$LMUPGRADE:PWRK$UPG_SHARE.RPT

- PWRK$LMUPGRADE:PWRK$UPG_SECURITY.RPT

Refer to Chapter 5, Upgrading Your Server Information, in this guide, for more information about upgrade reports.

A.3.2 Upgrade Utility Log File

The following log file is created when you run the Upgrade utility:

- PWRK$LMLOGS:PWRK$UPG_LOGFILE.LOG

Refer to Section 5.7, Troubleshooting, in this guide, for more information about upgrade logs.

A.3.3 Upgrade Database and Domain Files

The Upgrade utility creates the following database and domain files:

- PWRK$LMROOT:[LANMAN.DATAFILES]PWRK$UPG_MAPPING.DAT

  This file contains information used to upgrade security, including PATHWORKS LAN Manager username, id, and group, and PATHWORKS Advanced Server username and group.

- PWRK$LMROOT:[LANMAN.DATAFILES]PWRK$UPG_DOMAINS.DAT

  Contains a list of the PATHWORKS LAN Manager and PATHWORKS Advanced Server domains.

B

Resolving Log File Error Messages

B.1 Introduction

This section describes how to resolve the most common log file error messages.

B.2 Log File Error Messages

The Upgrade utility logs error messages to the following file:

`PWRK$LMLOGS:PWRK$UPG_LOGFILE.LOG`

You can access this file during the upgrade procedure as described in Section 5.7, Troubleshooting, in this guide, or after the upgrade from the DCL prompt. For example:

`$ EDIT PWRK$LMLOGS:PWRK$UPG_LOGFILE.LOG`

The following table shows examples of error messages you may see in the Upgrade utility log file.

Table B–1 Error Messages and Warnings

Message	Description	Action
V6 upgrade initialization failed	An attempt to upgrade a standalone server failed.	The Upgrade utility does not support upgrading a standalone server as a PDC. Exit the utility and promote the server to either a PDC or BDC, as described in Chapter 3, Changing Server Roles and Domain Names, in this guide.
		(continued on next page)

Table B–1 (Cont.) Error Messages and Warnings

Message	Description	Action
Bad network path	The BDC server failed to connect to the PDC.	Make sure the PDC is running, the domain and server name are correct, and transports are running.
Access denied	System account password is incorrect or account does not have required privileges.	Check system account password and privileges.
Computer name invalid	Incorrect PDC name entered.	Enter correct name using the Upgrade utility (see Enter PDC Information screen).
User already upgraded	User was upgraded previously.	Ignore this message.
Group already exists	The group was upgraded previously.	Ignore this message.
File currently locked by another user	If a file is open, the security ACLs on the file may not be upgraded to PATHWORKS Advanced Server permissions	None. The PATHWORKS Advanced server can be configured to dynamically upgrade file security when the file is accessed for the first time.

C

Editing Upgrade Reports

C.1 Introduction

This section describes how to resolve errors in Upgrade reports. You can also edit the Upgrade reports from the DCL ($) prompt in the following files:

`PWRK$LMROOT:[LANMAN.UPGRADE]*.RPT.`

This section includes the following topics:

- **Editing the User Report** — explains how to edit the User report to resolve errors in it.

- **Editing the Group Report** — explains how to edit the Group report to resolve errors in it.

- **Editing the Shares Report** — explains how to edit the Shares report to resolve errors in it.

- **Editing the Security Report** — explains how to edit the Security report to resolve errors in it.

C.2 Editing the User Report

To resolve errors in the User Report, edit the report as described in Section 5.5.6.1, Create and Edit the User Report, in this guide. The following table provides an example of how to edit the User Report.

Table C–1   How to Edit the User Report

If...	Then...	Example
You want to remove a user from the database	Type a backslash (\) in front of each user that you do not want upgraded, or delete the name.	To prevent the upgrade of JONES and SMITH, edit the appropriate section of the report so that it looks like this: \JONES \SMITH
When merging into a new domain: A user name on the local server has a match on the PDC, but the accounts are not for the same user	Rename the user account name in the user group. To do this, type = *newname* after the existing name in the appropriate section of the report.	Joe Smart has an account on the local server with a username of SMART. However, the account on the PDC is for another user named SMART. To make sure the upgrade procedure creates a new account JSMART on the PDC, provide a new name for the SMART account in the User Report on the local server. For example: SMART = JSMART

C.3 Editing the Group Report

To resolve errors in the Group Report, edit the report as described in
Section 5.5.6.2, Create and Edit the Group Report, in this guide. The following
table provides examples of how to edit the Group Report.

Table C–2 How to Edit the Group Report

If...	Then...	Example

You want to merge the members of a group on the local server with a group on the PDC, but the groups do not have the same name	Rename the group in the upgrade report so that it has the same name as the group on the PDC. To do this, change the line in the group report to rename the group as follows:
	
	Group name = *newname*.
		To merge the members of the group SQE containing users SMITH and JONES on the local server, with the members of the group WRITERS containing users BROWN and WHITE on the PDC, rename the group SQE in the Group Report as follows:
		
		SQE = WRITERS
		
		{
		
		Smith
		
		Jones
		
		}

C.4 Editing the Shares Report

To resolve errors in the Shares report, edit the report as described in Section 5.5.6.3, Create and Edit the Share Report, in this guide. The following table provides an example of how to edit the Shares report.

Table C–3 How to Edit the Shares Report

If...	Then...	Example
You want to prevent the upgrade of a print service or share to PATHWORKS Advanced Server	Type a backslash (\) in front of the share that you do not want upgraded, or delete the name.	To prevent the upgrade of the share ENGTEAM, edit the appropriate section of the Shares Report so it looks like this: \ENGTEAM

C.5 Editing the Security Report

To resolve errors in the security report, edit the report as described in
Section 5.5.6.4, Create and Edit the Security Report, in this guide. The
following table provides an example of how to edit the Security Report.

Table C–4 How to Edit the Security Report

If...	Then...	Example
You want to prevent the upgrade of permissions on a specific file or directory to PATHWORKS Advanced Server	Type a backslash (\) in front of the file or directory that you do not want upgraded, or delete the name.	To prevent the upgrade of the security on a directory, edit the appropriate section of the report so it looks like this: _ALP3$DKA:[PCCOMMON] _ALP3$DKA:[ART]

D

Migration Worksheet

D.1 Introduction

The migration worksheet in this section will help you keep track of information about your network as you modify it. You should start the migration process by completing the worksheet, then you will have it for reference during the upgrade. This worksheet is available in hardcopy only.

D.2 Server and Domain Information

1. Name of the server you are upgrading: _

2. Type of PATHWORKS LAN Manager server (PDC, BDC, member, standalone): _ _ _

3. If the server is a BDC, name of PDC for this domain:_ _ _ _ _ _ _ _ _ _ _ _ _

4. OpenVMS version number for the server:_ _

5. List any PATHWORKS LAN Manager servers in this domain:

   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _

6. List any Windows NT servers in this domain:

   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _
   _ _ _ _ _ _ _ _ _ _ _ _

Migration Worksheet
D.2 Server and Domain Information

7. List any other PATHWORKS Advanced Servers in this domain:

   ————————————
   ————————————
   ————————————

8. List any domains that are trusted by this domain:

   ————————————
   ————————————
   ————————————

9. List any domains that trust this domain:

   ————————————
   ————————————
   ————————————
   ————————————

10. If this server is part of an OpenVMS cluster, what are the node names of the other cluster members:

    ————————————
    ————————————
    ————————————

11. If this server is part of an OpenVMS cluster, what is the PATHWORKS cluster alias?

D.3 Services Information

1. Does this server provide Remote Boot services?————————————

2. Does this server support NetWare connections?———————

3. Does this server run the license server?————————————

D.4 Client Information

1. Number of clients running Windows NT Server software:————————

2. List names of users who have administrator privileges:

   ————————————
   ————————————

3. List names of users who have operator privileges:

   _____
   _____
   _____

4. List of PATHWORKS LAN Manager user groups:

   Group name_____

User	Directory/File Name	Permissions
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Group name_____

User	Directory/File Name	Permissions
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Group name_____

**Migration Worksheet
D.4 Client Information**

User	Directory/File Name	Permissions
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————
———————————	———————————	———————————

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