

Advanced Server for UNIX

Release Notes

April 2000

Product Version: Advanced Server for UNIX Version 5.0

Operating System and Version: Tru64 UNIX (formerly DIGITAL UNIX)
Version 4.0D or higher

This manual provides important information about the Advanced Server for UNIX software product, formerly known as Advanced Server for DIGITAL UNIX (ASDU).

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About This Manual

This manual provides information about the Advanced Server for UNIX® (ASU) software product that may not be documented elsewhere.

Audience

This manual is intended for anyone who is responsible for installing, configuring, and administering the ASU software.

Related Documents

The following documents provide more information about the ASU software:

- *Concepts and Planning Guide*—Describes concepts related to planning and administering the ASU software and environment.
- *Installation and Administration Guide*—Describes how to install, configure, and administer the ASU software and environment.

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- The full title of the book and the order number. (The order number is printed on the title page of this book and on its back cover.)
- The section numbers and page numbers of the information on which you are commenting.
- The version of Tru64 UNIX that you are using.
- If known, the type of processor that is running the Tru64 UNIX software.

The Tru64 UNIX Publications group cannot respond to system problems or technical support inquiries. Please address technical questions to your local system vendor or to the appropriate Compaq technical support office. Information provided with the software media explains how to send problem reports to Compaq.

Conventions

The following typographical conventions are used in this manual:

%	
\$	A percent sign represents the C shell system prompt. A dollar sign represents the system prompt for the Bourne, Korn, and POSIX shells.
#	A number sign represents the superuser prompt.
<i>file</i>	Italic (slanted) type indicates variable values, placeholders, and function argument names.
[]	
{ }	In syntax definitions, brackets indicate items that are optional and braces indicate items that are required. Vertical bars separating items inside brackets or braces indicate that you choose one item from among those listed.
...	In syntax definitions, a horizontal ellipsis indicates that the preceding item can be repeated one or more times.
cat(1)	A cross-reference to a reference page includes the appropriate section number in parentheses. For example, <code>cat(1)</code> indicates that you can find information on the <code>cat</code> command in Section 1 of the reference pages.

`Return`

In an example, a key name enclosed in a box indicates that you press that key.

`Ctrl/x`

This symbol indicates that you hold down the first named key while pressing the key or mouse button that follows the slash. In examples, this key combination is enclosed in a box (for example, `Ctrl/C`).

Advanced Server Version 5.0 for UNIX Release Notes

The ASU Version 5.0 software kit includes the features and functionality of previous ASU releases and provides new and enhanced features and functionality described in this document.

You use the ASU Version 5.0 software kit to:

- Install the ASU software on a Tru64™ UNIX® system for the first time.
- Upgrade PATHWORKS for DIGITAL UNIX (Advanced Server) Version 5.0G or higher software.
- Upgrade previous versions of the ASU or ASDU software.

See *Installation and Administration Guide* for information on installing ASU or upgrading to ASU.

The ASU Version 5.0 software supports Tru64 UNIX Version 4.0D or higher software.

The following table lists the ASU Version 5.0 subsets:

Subset Name	Provides
ASUBASE500	ASU server functions.
ASUTRAN500	The NetBEUI, NetBIOS over TCP/IP, and DECnet transports that the ASU software uses for network communications.
ASUADM500	English language version of the Nexus tools, which are Microsoft Windows based interfaces that you use to administer the ASU software.
ASUADMJP500	Japanese language version of the Nexus tools, which are Microsoft Windows based interfaces that you use to administer the ASU software.
ASUMANPAGE500	English language version of the reference pages that describe ASU commands.

Subset Name	Provides
ASUMANJP500	Japanese language version of the reference pages that describe ASU commands.
ASUSIA500	A Tru64 UNIX security mechanism that enables the Tru64 UNIX operating system software to use Windows NT authentication information. This subset is available only for systems running the Tru64 UNIX Version 5.0 or higher operating system software.

1.1 New and Improved Features

The following sections describe new and improved features in this release.

1.1.1 Support for TruCluster Server Version 5.0 or Higher

You can configure the ASU server in a TruCluster Server Version 5.0 or higher cluster as one of the following application types:

- None
The ASU server runs on only one cluster member. If that cluster member fails, the ASU server does not relocate to another cluster member.
- Single-instance
The ASU server runs on only one cluster member at a time. If that cluster member fails, the ASU server automatically relocates and restarts on another cluster member.
- Multi-instance
The ASU server runs on multiple cluster members at the same time, but appears as one server to clients. The TruCluster Server software distributes client connections to cluster members running the ASU server. If a cluster members fails, the TruCluster Server software automatically redistributes its client connections to another cluster member running the ASU server.

See *Installation and Administration Guide* for more information on configuring the ASU server in a TruCluster Server Version 5.0 or higher cluster.

1.1.2 Support for Windows 2000 Operating System

You can configure the ASU server to participate in a Windows 2000 domain as a backup domain controller (BDC) or a member server.

1.1.3 Restarting the lmx.dmn Process

If the `lmx.dmn` process stops unexpectedly, you can enter the following command to restart it:

```
# net start netlogon
```

1.1.4 Debugging Stack Overflow Problems

There is a new parameter called `sigaltstack` in the `lmxserver` section of the `lanman.ini` file. You need to enable this parameter only if you see stack overflow messages for `lmx` processes in the console log. When you enable this parameter, unexpected signals (such as a segmentation fault) in ASU server processes are processed on an alternate stack.

By default, the `sigaltstack` parameter is disabled.

1.1.5 ASU Checking of UNIX ACLs

A new registry value entry called `UnixAclSupport` allows the ASU server to use UNIX Access Control Lists (ACL) in addition to regular Tru64 UNIX user and group permissions.

This entry is supported only on systems running the Tru64 UNIX Version 5.0A and higher operating system software.

The `UnixAclSupport` entry is located in the `SYSTEM/CurrentControlSet/Services/AdvancedServer/FileServiceParameters` key, is a `REG_DWORD` type, and can have a value of either 0 or 1.

By default, the `UnixAclSupport` entry is disabled (set to 0).

If you enable the `UnixAclSupport` value entry, you should also enable the `UseUnixGroups` registry value entry. Otherwise, when a domain user changes a file, it is automatically placed in the `DOS-a--` group, which makes the file accessible to all users regardless of the ACLs set on the file.

1.1.6 Specifying the Maximum Number of Client Requests

A new registry value entry called `MaxMpxCt` specifies the maximum number of simultaneous requests that a client can make to the ASU server.

The `MaxMpxCt` entry is located in the `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters` key, is a `REG_DWORD` type, and can have a value from 1 to 100.

By default, the value of the `MaxMpxCt` entry is 50 requests per client.

1.1.7 Specifying the Maximum Number of Tasks Per lmx.srv Process

A new registry parameter called `MaxSmbWorkerTasks` specifies the maximum number `SMBWORKER` tasks that can be created in any one `lmx.srv` process, and therefore the maximum number of SMBs that can be processed simultaneously by an `lmx.srv` process. Increasing this value is not recommended because throughput gains will be small and the risk of a stack overflow is increased.

The `MaxSmbWorkerTasks` entry is located in the `SYSTEM/CurrentControlSet/Services/AdvancedServer/ProcessParameters` key, is a `REG_DWORD` type, and can have a value of 1 to 100.

By default, the value of the `MaxSmbWorkerTasks` entry is 8 tasks.

1.1.8 Displaying Detailed lmx.srv and lmx.ctrl Task Information

The `lmstat -t` command displays detailed information for each task of an `lmx.srv` process and the `lmx.ctrl`, `lmx.dmn`, and `lmx.cluster` processes.

1.1.9 Setting and Viewing the System's Password Policy

The `chaccounts` command is available to display or set the ASU password expiration policy for a system. The following table describes the `chaccounts` options:

Option	Purpose
# <code>chaccounts</code>	Displays the system's ASU password expiration policy.
# <code>chaccounts 0</code>	Specifies that users can log in to the ASU server and change their expired domain password without notifying the administrator.
# <code>chaccounts 1</code>	Specifies that users cannot log in to the ASU server if their password has expired. A user's expired domain password must be changed by the administrator before the user can log in to the ASU server.

1.1.10 Viewing the Status of ASU Print Jobs

On systems running the Tru64 UNIX Version 5.0 and higher operating system software, you can use the Tru64 UNIX SysMan Event Viewer to view status information about print jobs sent to the ASU server.

The ASU server uses parts of the `lpd` daemon. As a result, ASU printing events appear as the usual Tru64 UNIX printing events.

See *System Administration* for more information on the SysMan Event Viewer.

1.1.11 Error Message If NetBIOS over TCP/IP Runs Out of Names

If NetBIOS over TCP/IP (`knbtcp`) runs out of names, the following message is written to the system log (`/var/adm/messages`):

```
knbtcp: Warning - NetBIOS name limit exceeded; current limit = 32
Recommend increasing parameter "knbnames" for subsystem "knbtcp"
using sysconfigdb
```

See *Installation and Administration Guide* for more information on increasing the number of NetBIOS over TCP/IP names.

1.1.12 Error Message If NetBEUI Runs Out of Datalinks

NetBEUI requires two datalinks for each configured controller. If NetBEUI runs out of datalinks, the following message is written to the system log (`/var/adm/messages`):

```
netbeui: Warning - link limit exceeded; current limit = 8
Recommend increasing parameter "nb_datalinks" for subsystem
"netbeui" using sysconfigdb
```

See *Installation and Administration Guide* for more information on increasing the number of datalinks.

1.1.13 Error Message If NetBEUI Runs Out of Names

If NetBEUI runs out of NetBIOS names, the following message is written to the system log (`/var/adm/messages`):

```
netbeui: Warning - NetBIOS name limit exceeded; current limit = 32
Recommend increasing parameter "nb_names" for subsystem "netbeui"
using sysconfigdb
```

See *Installation and Administration Guide* for more information on increasing the number of NetBIOS names.

1.2 Corrections

The following sections describe ASU software problems that are corrected in this release.

1.2.1 Reducing CPU Time

The `lmx.srv` process no longer consumes excessive amounts of CPU time if a client encounters a transport error while the ASU server is breaking an `oplock`, processing a print request, or performing some other time-consuming server operation.

1.2.2 Browser No Longer Unexpectedly Exits

The browser no longer unexpectedly exits when there are several hundred or more domains in the browse list.

1.2.3 Shutting Down ASU No Longer Defuncts Processes

Problems were corrected that caused ASU server processes to go into a defunct state upon shutdown and display one of the following messages when the ASU server tried to restart:

```
no such device
```

```
error in protocol
```

1.2.4 Changing Client Addresses Updates the NetBIOS over TCP/IP Name Cache

NetBIOS over TCP/IP now updates its dynamic name cache with a client's new address if it is different from the previously known address.

1.2.5 NetBEUI Processes Create a Core File

NetBEUI link processes (`nblink` and `dlink`) now handle all abnormal termination signals such that they are ignored, cause the process to terminate normally, or create a core file and stack trace as appropriate. These changes were previously made for the NetBIOS over TCP/IP link process (`knblink`).

1.2.6 Member Server Corrections

The following member server problems are corrected:

- Users are now authenticated by an ASU member server in a domain or in a trusted domain.
- You can now use the Power Users Group on an ASU member server.
- You can now use the `net admin` command from a PDC to administer an ASU member server.
- You can use the ASU Administrator utility (`asuadm`) to modify an ASU member server's registry.

1.2.7 Printing No Longer Fails Because of Corrupt `lmspoolmap` Files

The `lmspoolmap` files no longer become corrupt. The problem sometimes caused printing to fail after a day or two and displayed the message:

```
Error has been detected in the Printer setup.
```

If you have existing `lmspoolmap` files that are corrupt, you must delete them by entering the following command:

```
# rm /usr/net/servers/lanman/spool/lmspoolmap.*
```

1.2.8 Honoring the Archive Bit

The archive bit is now honored on files that were edited using the Notepad utility on a Windows system and saved in an ASU disk share.

1.2.9 Using the SSIPasswdAge Entry on a PDC

You can now use the `SSIPasswdAge` entry on a PDC to specify the time, in seconds, at which a PDC must change the password that it sends to a trusted PDC to verify its eligibility to receive user account database update.

By default, the value of the `SSIPasswdAge` entry is 604800 seconds (7 days).

1.2.10 Using a ShmemTrace File with the lmstat Command

The `lmstat -c` command correctly prints the link field when used with input from a `ShmemTrace` file. For example, change to the crash directory and enter the following command:

```
# lmstat -c -i ShmemTrace
```

1.2.11 Clearing the Home Directory Drive

The `net user` command now only clears the home directory drive of the domain user account if you specify a home directory (`/homedir:`) with no home directory drive (`/homedirdrive:`).

1.2.12 Setting New Registry Parameters When Using the asuinstallupdate Command

New registry parameters are now automatically set if you use the `asuinstallupdate` command to upgrade the ASU software.

1.3 Changes

The following sections describe changes in the ASU software.

1.3.1 Increased Default Values

The default value of the `SpoolssMaxCalls` registry value entry was increased from 50 to 100.

The default value of the `debugsize` parameter in the `lanman.ini` file was increased from 1024 to 20000.

1.3.2 The ASU Server No Longer Accepts PATHWORKS Server-Based Licenses

The ASU server no longer accepts PATHWORKS server-based licenses. The ASU sever only accepts:

- ASU server-based licenses in the ASDU-CONNECT product authorization key (PAK).
- PATHWORKS client-based licenses in the ASDU-MCS-CLIENT PAK.

Note

ASU Version 5.0 is the last version that will accept PATHWORKS client-based licenses. See Section 1.3.3 for more information.

If you are an existing services customer with rights-to-new-version contract and are using PATHWORKS Version 5.0 or higher with server-based licensing, you should have received a letter from services to assist you in upgrading your PATHWORKS server-based licenses to ASU server-based licenses. Contact your service representative if you need to upgrade PATHWORKS server-based licenses.

See Chapter 2 for more information about ASU licenses.

1.3.3 Next Release of the ASU Server Will Not Accept Client-Based Licenses

The ASU Version 5.0 server is the last version of the ASU server that will accept PATHWORKS client-based licenses.

If you have a rights-to-new-version contract for PATHWORKS DOS/Windows clients and have clients that connect to an ASU server, then you must do one of the following:

- Migrate to the ASU rights-to-new-version contract.
- Purchase an ASU server-based license ASDU-CONNECT PAK.

See *Installation and Administration Guide* or contact your service representative for more information on ASU licenses.

1.4 Known Problems

The following sections describe known problems and solutions for this release.

1.4.1 General Problems

The following sections describe general ASU server problems.

1.4.1.1 TruCluster Server Version 5.x Error Message

When you use the following command to start an ASU server that is configured as a single-instance TruCluster Server Version 5.x application, the error `CAA request timeout!`, is displayed:

```
# caa_startup asu -c servername
```

Ignore the error message; the ASU server starts correctly.

1.4.1.2 Uppercase File and Directory Names

A file name or directory name created with all uppercase letters in an ASU share is displayed in the Windows Explorer with only an initial uppercase letter.

1.4.1.3 Error Creating Many User Accounts On a BDC

Creating many users accounts on a BDC can cause the following message to be displayed:

```
Could not find domain controller for this domain.  
More help is available by typing NET HELPMSG 2453.
```

If this message is displayed, create the user accounts from the PDC.

1.4.1.4 SIA Subset and User Passwords

When you create a domain user account, the password for the corresponding Tru64 UNIX user account, for example in the `/etc/passwd` file, is set to `Nologin`, which means that the user cannot interactively log in to the Tru64 UNIX system until an administrator sets their password. However, if you install the SIA subset and create a domain user account, the password for the account is still set to `Nologin`, but the user can interactively log in to the Tru64 UNIX system using their domain user name and password.

1.4.1.5 Ignoring Tru64 UNIX Group and File Permissions

By default, the ASU server first checks Windows NT permissions then Tru64 UNIX user and group permissions before a domain user can access a file.

You can configure the ASU server to not check Tru64 UNIX user and group permissions by enabling the `IgnoreUnixPermissions` registry value entry. However, if you enable the `UnixQuotas` registry value entry, the ASU server checks Tru64 UNIX user and group permissions even if you enable the `IgnoreUnixPermissions` registry value entry.

1.4.1.6 NFS Mounted Devices Require the `rpc.lockd` and `rpc.statd` Daemons

The ASU software might stall or data might be lost when you access an NFS mounted device if the ASU `UseNfsLocks` registry value entry is enabled (set to 1) and NFS locking is not enabled (the `rpc.lockd` and `rpc.statd` daemons are not started) on the NFS server or on the Tru64 UNIX system on which the ASU software is running. By default, the `UseNfsLocks` registry value entry is enabled.

1.4.1.7 Replicating a Large User Account Database

If you have a domain with more than 40,000 user accounts, you might experience difficulty replicating the domain user account database from a PDC to a BDC. The problem is that not all accounts appear on the BDC (as seen with the `net user` command) and the `lms.dmn` process continually tries to replicate the user account database (as seen with `lmstat -t` command).

To fix this problem, increase the value of the `netmsgwait` parameter in the `lmsserver` section of the `lanman.ini` file on the BDC. A value of 120 seconds should be sufficient to replicate 90,000 user accounts.

1.4.1.8 Replicating Files and Directories

The replication service does not replicate files and directories if:

- The directory name at the top level of the tree contains non-ASCII characters. Only ASCII characters can be used in the top level directory name. However, non-ASCII characters can be used in the names of subdirectories and files within the tree.
- You specify more than one server on the import list.
- You set the `integrity=tree` parameter in the `repl.ini` file.
- The names of files and directories to be replicated do not conform to the MS-DOS 8.3 naming convention.
- You enter a lowercase device name, which is always `C:`, in the replicator export path. Enter the device name in uppercase, for example:

```
ExportPath = "C:\usr\net\servers\lanman\shares\asu\repl\export"
```

1.4.1.9 Do Not Install or Upgrade ASU While the PATHWORKS License Server Software is Running

If you are running the PATHWORKS License Server software (not shipped with the ASU software), you must disable the License Server software before you install, upgrade, or deinstall the ASU software. After you install, upgrade, or deinstall the ASU software, you must reenble the License Server software.

See the *Guide to Managing PATHWORKS Licenses* for information on disabling and enabling the License Server software.

1.4.1.10 Concepts and Planning Guide

The *Concepts and Planning Guide* was not updated for this release. Therefore, *Concepts and Planning Guide* continues to use the previous Advanced Server for DIGITAL UNIX (ASDU) name and version number, and incorrectly lists Tru64 UNIX Version 4.0A as the minimum operating system version. The minimum version of the Tru64 UNIX operating system that ASU runs on is Version 4.0D.

1.4.2 ASU Server and Windows 2000 Problems

The following sections describe ASU server and Windows 2000 problems and solutions.

1.4.2.1 Managing the ASU Server from the MMC

When you use the Windows 2000 Management Console (MMC) to manage services on the ASU server the following informational message might be displayed:

```
Configuration Manager: The machine selected for remote
communication is not available at this time.
```

You can ignore this message.

1.4.2.2 Certain Management Functions Must Be Performed on the Windows 2000 Domain Controller

You must perform certain management functions on the Windows 2000 domain controller; for example, adding a group policy snap-in for a remote server. If you perform a function on a system other than the Windows 2000 domain controller and the following error message is displayed, retry the function on the Windows 2000 domain controller.

```
"Object Picker cannot open because no locations from which to
choose objects could be found."
```

1.4.2.3 Trust Management

If the ASU server is configured as a BDC in a Windows 2000 domain, you must perform all trust management on the Windows 2000 domain controller. When you enter a `net` command on the ASU BDC to manage a trust, the command fails and an error message similar to the following is displayed:

```
# net trust ntdomain password /allow /domain:w2kdomain
Access Denied

# net trust ntdomain password /add Error 87
Parameter is incorrect.
```

1.4.2.4 Windows 2000 Explorer Crashes When Managing ASU Printer Shares

The Windows 2000 Explorer crashes if you attempt to manage an ASU printer share that was not configured with a driver from Windows NT or Windows 2000.

To avoid this problem, create an ASU printer share from Windows NT or Windows 2000 instead of using the ASU `net share` command.

1.4.2.5 ASU and Windows 2000 Single Sign-On (SSO) Create Machine Account Names

When you configure the SSO software on a Tru64 UNIX system, the SSO software creates a machine account for the Tru64 UNIX system on the Windows 2000 domain controller, assigning an account name and password that you provide. When you configure an ASU server in a Windows 2000 domain, the ASU software creates a machine account for the Tru64 UNIX system on the Windows 2000 domain controller, assigning the Tru64 UNIX system's host name as the account name and a randomly generated password.

If you configure the SSO software using the Tru64 UNIX system's host name as the machine account name and then configure the ASU server, the ASU software overwrites the password that you provided for the machine account. This change leaves the SSO software unable to bind to the directory associated with the machine account.

To avoid this problem, do not use the Tru64 UNIX system's host name as the machine account name when you configure the SSO software.

1.4.3 Network Problems

The following sections describe network problems and solutions.

1.4.3.1 NetBEUI Clients Lose Connections

A problem in the 802.2 service class implementation on most clients causes NetBEUI clients to lose their links to some fast SMP servers. The problem is complicated by the ability of some SMP servers to send out-of-order packets to the client.

If you receive an "Abort, Fail, Retry?" message, click on the retry button to try to reestablish the link. If the problem persists, abort the link and reconfigure the client and server to use TCP/IP.

1.4.3.2 Transport Startup Error

Reboot the system if the following message is displayed after upgrading the ASU software:

```
Open of knbtcp driver failed: Error in protocol
```

1.4.3.3 Problems with WINS Servers with Large Databases

In very large scale WINS environments, name registrations with the WINS servers can sometimes take a long time. This delay can cause the ASU server to declare contact lost with the WINS server and write the following message in the system log file (`/var/adm/messages`):

```
knb: Contact lost with WINS server nn.nn.nn.nn
```

In this message, `nn.nn.nn.nn` is the TCP/IP address of the WINS sever.

While this problem does not prevent the ASU server from working, it might cause problems with clients attempting to connect to the ASU server if they use only WINS for name resolution. The ASU server attempts to register ASU server NetBIOS names with the WINS server (after a default retry period of 4 minutes) until either all ASU server names are registered or contact is lost (in which case this process is repeated).

If problems persist where contact is constantly lost, you can change the WINS client parameters located in the `/etc/sysconfigtab` file as described in the following table, however Compaq does not recommend changing the default values.

Parameter	Specifies	Default Value
<code>knbretrycontact</code>	The timeout (in ms) between retries to contact the WINS server.	240000 (4 minutes)

Parameter	Specifies	Default Value
knbquerytimeout	The timeout (in ms) allowed for name queries. This parameter affects all name queries using broadcast and WINS.	500 (0.5 seconds)
knbqueryretries	The number of retries.	3
knbwinsquerymult	A multiplier applied to WINS queries for timeouts.	4 With the default query timeout and default multiplier, a WINS query has a 2 second timeout (0.5 seconds x 4)
knbignorewinsavailable	Whether or not to ignore the availability of the WINS server when doing queries.	True (1) allow name queries to be sent to the WINS server even if contact was lost

Follow these steps to change a WINS client parameter:

1. Stop the ASU server by entering the following command:

```
# net stop server
```

2. Create a stanza format attributes file for the parameter you want to change. For example, to create a stanza format attributes file for the `knbretrycontact` parameter to increase the timeout between retries to contact the WINS server to 300000 (5 minutes), enter:

```
# cat > knbretrycontact.stanza
knbtcp:
knbretrycontact = 300000
^D
```

3. Merge the attributes in to the `/etc/sysconfigtab` file by entering the following command:

```
# sysconfigdb -a -f knbretrycontact.stanza knbtcp
```

If the `knbretrycontact` parameter exists in the `sysconfigtab`, use the `-u` flag to update the parameter instead of the `-a` option to add a parameter.

4. Restart the ASU server by entering the following command:

```
# net start server
```

1.4.4 Command Problems

The following sections describe command problems and solutions.

1.4.4.1 The `asuinstallupdate` Command Does Not Work in a TruCluster Version 1.x Cluster

The `asuinstallupdate` command does not correctly upgrade the ASU software in a TruCluster Version 1.x cluster. Use the `setld` and `asusetup` commands to upgrade the ASU software in a TruCluster Version 1.x cluster.

See *Installation and Administration Guide* for more information on upgrading the ASU software.

1.4.4.2 The `net` Commands Are Not Available After Upgrading

When you upgrade the ASU software, the shell path might be modified causing the `/usr/bin` path to disappear. As a result, the `net` commands are not available. Use the `rehash` command to restore the path when using the C shell.

1.4.4.3 The `lmstat -n` Command Reports Incorrect Number of Client Connections

The `lmstat -n` command displays an incorrect number of client connections when you enter the `net session` command on a system where the ASDU-MCS-CLIENT product authorization key (PAK) is installed.

Use the `lmstat -L` command to view the correct number of client connections.

1.4.4.4 Do Not Use the `adduser` Command on a BDC

You cannot create a Tru64 UNIX user account with an associated domain user account by using the `adduser` command on a system running the Tru64 UNIX Version 5.0 or higher operating system software and configured as an ASU BDC. Alternatively, you can use either the `/usr/bin/X11/dxaccounts GUI` or the `useradd` command with the `-D pc_synchronize=0` option. For example, to use default values to create a Tru64 UNIX user account and a domain user account for a user named Peter, enter the following commands:

```
# useradd -D pc_synchronize=0
# useradd peter
```

See the `useradd` reference page for more information on the `useradd` command.

1.4.4.5 The `sjstoeuc` and `euctosjis` Commands Incorrectly Convert Some Files

The `sjstoeuc` and `euctosjis` commands incorrectly convert Japanese user-defined characters when converting from MS-DOS to UNIX format.

If the text file you want to convert contains Japanese user-defined characters, then use the `ud` and `iconv` commands to convert them. For example, to convert a file from MS-DOS to UNIX format and convert the encoding of the characters from SJIS to EUC, enter:

```
# ud -u sjis.txt | iconv -f SJIS -t eucJP > euc.txt
```

To convert a file from UNIX to MS-DOS format and convert the encoding of the characters from EUC to SJIS, enter:

```
# ud -d euc.txt | iconv -f eucJP -t SJIS > sjis.txt
```

1.4.4.6 Do Not Run the `asusetup` Command with the `log` Command

If you want to log output from the `asusetup` procedure, use the `script` command rather than the `log` command with the `asusetup` command.

1.4.4.7 The `net accounts /sync` Command Incorrectly Calculates Domain Entries

The `net accounts /sync` command does not correctly calculate the number of entries when a domain contains many Windows NT workstations. Microsoft Corporation has issued a hot fix (Q182441) to correct this problem in the Windows NT Version 4.0 Service Pack 4.

1.4.5 Problems Administering ASU from a Windows 95 System

The following sections describe problems encountered when administering the ASU software from a Windows 95 system and possible solutions.

1.4.5.1 Setting Up Trust Relationships

You can use the Windows client-based administrative tools (Nexus tools) on a system running the Windows 3.x, Windows for Workgroups, or Windows 95 software to add a trust relationship. However, these tools cannot verify a trust relationship and, therefore, a message is displayed indicating that you must contact the administrator of the added domain to ensure that the trust is added.

The Windows client-based administrative tools do not allow you to log in to a remote trusted domain to manage it.

See *Installation and Administration Guide* for more information on the Windows client-based administrative tools.

1.4.5.2 Error Browsing ASU Shares from Windows 95

When you browse ASU shares that have file or directory names that are spelled the same, but one name is uppercase and the other name is lowercase, the Windows 95 software displays the following error message:

Drive:\directory is not accessible
This folder was moved or removed.

Rename files or directories if their names differ only in case.

1.4.5.3 Administering Permissions on Share Names that Contain German Umlauts

You cannot use the Windows Explorer on a system running the Windows 95 software to administer resource permissions on shares that contain German umlauts in their names. To administer permissions on these shares, you must use the Windows Network Neighborhood interface.

Microsoft Corporation acknowledges that the Windows 95 software does not support Unicode and has no plans to provide a solution.

1.4.5.4 Renaming or Deleting Files and Directories in ASU Shares

You cannot use the Windows 95 Explorer to rename or delete files and directories in ASU shares that contain lowercase non-English language characters if the ASU software is configured for either the English locale for US (en_US.ISO8859-1) or the English locale for Great Britain (en_GB.ISO8859-1).

To resolve this, set the `lang` and `msdoscodepage` parameters in the `lmxserver` section of the `lanman.ini` file as described in the following table:

For This Locale:	Set lang Parameter to:	Set msdoscodepage Parameter to:
en_US.ISO8859.1 (English for U.S.)	de_DE.ISO8859-1	cp437
en_GB.ISO8859.1 (English for Great Britain)	de_DE.ISO8859-1	cp850

1.4.6 Printer Problems

The following sections describe printer problems and solutions.

1.4.6.1 ASU Print Jobs Consuming 100% CPU Time

If information from the `vmstat` command shows that printing is taking up 100 percent of the CPU time, delete the `/usr/net/servers/lanman/spool/lmspoolmap.*` files. These files will be recreated when the ASU server needs them.

1.4.6.2 Sharing Printers Attached to Windows Clients

You cannot use the `lprsetup` command to create printers that use `clienttps` or `clienttxt` filters on a system running the Tru64 UNIX Version 5.0 or higher operating system software. To create print shares using these filters, edit the `/etc/printcap` file and add the following entries:

- `clienttps` if the printer is a PostScript printer
- `clienttxt` if the printer is a text printer

1.4.6.3 Performance Problem When Printing from the Internet Explorer

Windows users who are using Internet Explorer Version 4.0 might notice increased network traffic after printing to a down-level printer on a system where the ASU `DisableUpLevelPrinting` value entry is enabled. By default, this entry is disabled. The increased network traffic is a periodic, repeating request by Internet Explorer for information about the print job, which continues until the user stops the Internet Explorer.

Microsoft Corporation has corrected this problem in Internet Explorer Version 4.0 Service Pack 1.

1.4.6.4 Displaying of ASU Printer Properties

If, for an ASU printer share, you install a driver from a Windows NT client using Windows NT distribution media, then printer properties that are displayed are Windows NT local properties and not ASU printer properties.

1.4.6.5 Printer Status Messages in Email

Windows 95 system users might receive an email message when they print a job to a DIGITAL or Compaq print server because Windows 95 print drivers include instructions that tell the printer to send a status message.

You can configure the print server software to not send email messages.

Advanced Server for UNIX Licensing

Provided with the ASU server is a complimentary two-user ASU Product Authorization Key (PAK). This PAK is built into the ASU server and no action is necessary to activate it. The two licenses can be used immediately by two clients after the ASU software is installed and configured.

A client uses an ASU license on each ASU server that it browses or connects to, which allows unlimited access to the ASU server that issued the license. Clients retain the ASU license until all browsing and connections to the ASU server are stopped.

New clients cannot browse or connect to an ASU server while all of the ASU licenses are in use.

2.1 Types of ASU Licenses

The ASU software supports two types of licenses:

- Server-based
- Client-based

Note

The ASU Version 5.0 server is the last version of the ASU server that will accept PATHWORKS client-based licenses.

The following sections discuss these licenses.

2.1.1 Server-Based Licensing and the ASU Server

If you are an existing services customer with rights-to-new-version contract and are using PATHWORKS Version 5.0 or higher with *server-based* licensing, you should have received a letter from services to assist you in upgrading your licenses. The server-based license PAK name remains ASDU-CONNECT.

Contact your services representative if you did not receive a letter.

2.1.2 Client-Based Licensing and the ASU Server

If you are an existing services customer with rights-to-new-version contract and you are using PATHWORKS Version 5.0 or higher with client-based licensing, you can continue to do so with this version of the ASU server.

The client-based licensing components that were required in the PATHWORKS environment are required in the ASU environment as described in the following sections.

2.1.2.1 License Server Software

The License Server software assigns licenses to clients and must be running on at least one Tru64 UNIX or OpenVMS system in your environment. The License Server software is not provided with the ASU software; use the License Server software that was provided with your PATHWORKS software.

You cannot run the PATHWORKS License Server software on the same system where the ASU software is installed.

The License Server software for Tru64 UNIX is in the PATHWORKS for DIGITAL UNIX PWLIC610 subset. From an administrative account on the Tru64 UNIX system where you want to run the License Server, enter the following command to see if the software is installed:

```
#/usr/sbin/setld -i | grep PWLIC610 | grep installed
```

A message is displayed if the PWLIC610 subset is installed. See your PATHWORKS for DIGITAL UNIX Server *Installation and Configuration* guide for more information on installing the License Server.

The License Server software for OpenVMS is in the PATHWORKS for OpenVMS base product. From an administrative account on the OpenVMS system where you want to run the License Server, enter the following command to see if the software is running:

```
$ show process PWRK$LICENSE_S
```

If information about the PWRK\$LICENSE_S process is not displayed, then the License Server is not running. See your DIGITAL PATHWORKS for OpenVMS Server *Installation and Configuration* guide for more information on installing and running the License Server.

2.1.2.2 License Registrar Software

The License Registrar software validates that a client has a license when it requests to browse the server or connect to ASU shares. The License Registrar software is in the ASU base subset and is installed with the ASU software.

The following table describes parameters located in the [lmsserver] section of the lanman.ini file that you use to manage the License Registrar:

Parameter	Specifies	Default Value
clienttimeout	The time, in seconds, that the License Registrar waits before deciding that the client is not responding.	2
versionlimit	The number of PATHWORKS license PAK versions which the License Registrar checks.	+2.5

The License Registrar software does not produce a separate log file. To debug the License Registrar, set the debug parameter in the [lmsserver] section of the lanman.ini file to yes and restart the ASU server. This causes all ASU processes to write debug log files in the /usr/net/servers/lanman/debug directory.

You can send a SIGUSR1 signal to the License Registrar process to have it write a debug log file without restarting the ASU server. For example:

```
# ps -e | grep lmx.registrar
3366 ttyp4 | 0:00.03 lmx.registrar
# kill -30 3366
# more /usr/net/servers/lanman/debug/Debug-LMX.REGISTRAR-3366
```

See *Installation and Administration Guide* for more information on the debug parameter.

2.1.2.3 Enabling Client-Based Licensing

To enable client-based licensing on the ASU server, you must load the ASDU-MCS-CLIENT PAK in to the Tru64 UNIX License Management Facility (LMF).

Follow these steps to obtain the ASDU-MCS-CLIENT PAK:

1. Enter the following URL in a web browser:
`http://www.service.digital.com`
2. Click on Patches.
3. Click on the Contract Access.
4. Click on the Search Utility.
5. Enter ASDU in the query field and click on the search button.

6. Click on the Compaq Services Division: Patch/ECO ASDU-MCS-CLIENT PAK link and follow the instructions on the screen.

Contact your services representative if you need to order additional client-based licenses.

2.1.3 Checking Licenses

You use the `lmstat -cL` command to display license counts. The output will vary depending upon whether or not the License Registrar is running.

If the License Registrar is not running, the output looks similar to the following:

```
# lmstat -cL

Shared memory initialization time: Fri Jan  9 14:18:54 2000
Lmx.ctrl's current time:          Fri Jan  9 15:02:13 2000
Server statistics last cleared:   Fri Jan  9 14:18:54 2000
Shared memory size:               115048 bytes

Clients:
[001] PCLS13  nwnum=0  vcmum=2 on 25712 lic=02 (BUILT-IN) link=[001]

Licenses:      maximum  allocated
ASDU           0         0
BUILT-IN       2         1
Total:         2         1
```

In the output:

- The ASDU licenses are the ASU server-based licenses.
- The BUILT-IN licenses are the two complimentary licenses included with the ASU software.

If the License Registrar is running, the output looks similar to the following:

```
Shared memory initialization time: Mon Jan 5 14:02:26 2000
lmx.ctrl's current time:          Fri Jan 9 14:42:45 2000
Server statistics last cleared:   Mon Jan 5 14:02:26 2000
Shared memory size:               115048 bytes
```

Clients:

```
[000] JOSE44    nwnum=1, vcnun=0 on 07772 lic=01 (SERVER) link=[000]
[001] JOSE40    nwnum=1, vcnun=0 on 07772 lic=04 (CLIENT) link=[001]
[002] RACK150   nwnum=1, vcnun=0 on 07772 lic=01 (SERVER) link=[002]
[004] JOSE36    nwnum=1, vcnun=0 on 07772 lic=01 (SERVER) link=[004]
```

```
Licenses:      maximum  allocated
SERVER         3         3
CLIENT        ----         1
Total:         ----         4
```

The SERVER licenses are the ASU server-based licenses and the two complimentary licenses. The CLIENT licenses are PATHWORKS client-based licenses.

Reader's Comments

Advanced Server for UNIX

Release Notes

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