DSNlink Version 2.3 for Compaq's DIGITAL UNIX Release Notes

These release notes describe new features in this version of DSNlink. The notes also list fixed problems from DSNlink Version 2.1A and the current known bugs.

December 16, 1998

Revision/Update Information:	This is a revised manual, which supersedes all previous versions.
Operating System and Version:	Compaq's DIGITAL UNIX® Versions 4.0b and 4.0d.
Software Version:	DSNlink Version 2.3 for Compaq's DIGITAL UNIX

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Preface

This document explains:

- The new features of DSNlink Version 2.3 for Compaq's DIGITAL UNIX
- Fixed problems in earlier versions
- Restrictions
- Known bugs
- The documentation and how to start DSNlink

Overview

The DSNlink software is a service tool that provides electronic communication capabilities between customers' systems and a Compaq Customer Support Center. Using DSNlink, customers can send electronic service requests and receive help from Compaq specialists. Customers can also use DSNlink to search Compaq's technical support databases for information about products for which they have service contracts.

Intended Audience

The audience for this document is anyone who uses DSNlink.

Conventions Used in This Document

This document uses the conventions listed in Table 1, as needed:

Table 1 Manual Conventions

Convention	Description
UPPERCASE and lowercase	DSNlink parameters and other file entries are case insensitive. However, command and options are case sensitive. To avoid errors, enter information in examples as shown.
Compaq's DIGITAL UNIX®	Refers to the DIGITAL UNIX operating, which is now owned by Compaq Computer Corporation.
DSNlink	The abbreviated service tool name is used for convenience to refer to the Compaq DSNlink Version 2.3 for Compaq's DIGITAL UNIX software.
boldface text	Boldface text is used in examples to show what the user types to contrast that with the results of the command.

(continued on next page)

Table 1 (Cont.) Manual Conventions

Convention	Description
`monospace type`	Monospace type designates commands and examples.
*% *	A percent sign is the default prompt for the C shell.
#	A number sign is the default superuser prompt.
[ ]	Square brackets indicate you must choose one or more of the parameters or variables within the brackets.
{ }	Curly braces indicate that all parameters or variables within the braces are optional.
. . .	A vertical ellipsis indicates the example continues, but the additional text is not displayed.

1
What's New in This Version

The primary reason for the DSNlink Version 2.3 for Compaq's DIGITAL UNIX product is:

- To make the software Year 2000 Ready
- To correct limitations on the modem transport
- To change the DECwindows Motif interface to make it identical to the interface in the DSNlink Version 2.2 for OpenVMS product

This section explains the features that are new in DSNlink Version 2.3 for Compaq's DIGITAL UNIX.

1.1 The Code Is Year 2000 Ready

Previously: The DSNlink software was not Year 2000 Ready.

Currently: DSNlink has been modified to process years without confusing the 1900s with the 2000s. Section 3.1.1 has more information about the requirement that users enter the year part of dates with four digits.

For the Year 2000 statement, see the *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Service Tool Description*.

1.2 File Copy Additions

Previously, DSNlink used a version of the File Copy application, whose application ID is dsn_copy. That File Copy application has been replaced by an updated version, dsn_file. You use the identifier in the authorizations files and see it in log files and the route map. All references to the File Copy application mean the dsn_file version.

These are changes to the File Copy application:

- When copying files to your Customer Support Center, you no longer need to specify the target file name. You enter only the name of the file to copy. The File Copy window no longer has the Target File field, and target-file is no longer an argument to the `dsncopy` command.
- File copies are limited to your copying files to the host. Previously, you could copy files from the host. The feature was unnecessary.
- For sites that configure their firewalls for multiple ports, the TCP/IP port for the File Copy application, dsn_file, is 2379. The previous TCP/IP port was 2371 for the application dsn_copy. You no longer need to configure a port for the dsn_copy application.
- DSNlink automatically determines whether to use text or binary file format for the file to be copied. The change appears as a choice on the Transfer Modem option menu in the File Copy window. It is also a default option, -automatic, to the `dsncopy` command.

- DSNlink compares the file or files you are copying to other files you have previously copied to the host. If a file with the same name already exists on the host, a question asks you to confirm that you still want to copy the file.

  If a file transfer is interrupted either by you or by system problems, the interrupted file exists as a partial file on the host. If you attempt to transfer the file again, DSNlink compares the file on your system with the file on the host and copies the parts that vary to the host. If necessary, the file on the host is corrected to match the file on your system.

1.3 Using an ITS Initialization File

You can now run an initialization file when starting ITS. In the DECwindows Motif interface, the file is restricted to `open` commands only. In the command line interface, the initialization file can have any DSNlink Version 2.3 ITS commands.

For more information, see the chapters on the Interactive Text Search application in the *DSNlink User's Guide*, which you access from the Help menu or, in the command line interface, with the `dsnhelp` command.

1.4 New Modem Scripts

The modem scripts supplied in DSNlink Version 2.1A have been updated. Table 1–1 shows the changes.

Table 1–1 Modem Scripts

Modem	DSNlink Version 2.1A Scripts	DSNlink Version 2.3 Scripts	Change
Codex 2264	co2264.ddsf_src	co2264.ddsf_src	No changes. The script for software flow control.
Codex 2264			The script for CTS/RTS hardware flow.
DIGITAL DF196	df196.ddsf_src	df196.ddsf_src	No changes.
DIGITAL DF296	df296.ddsf_src	df296.ddsf_src	No changes.
Hayes	ha288.ddsf_src for the Hayes OPTIMA 288 modem	hayes.ddsf_src and hayeshw.ddsf_src	Scripts for Hayes and Hayes compatible modems. The scripts are for software and hardware flow control. See also Section 1.8.
Multi-Tech 1432 Multi-Tech 1932 Multi-Tech 2834	mt1432.ddsf_src mt1932.ddsf_src mt2834.ddsf_src	multimodem.ddsf_src	Individual scripts for Multi-Tech modems 1432, 1932, and 2834 now have one script for XON/XOFF software flow control. The scripts have several improvements. See also Section 1.8.
		multimodemhw.ddsf_src	The script for CTS/RTS hardware flow control for Multi-Tech modems 1432, 1932, and 2834.
Null modem	null.ddsf_src	null.ddsf_src	No changes. The script is for testing purposes.

The scripts are in /usr/lib/dsn/modem/ and have the file extension .ddsf_src.

Note that the latest scripts are available from the following Web site:

http://www.service.digital.com/dsnlink/modem_scripts.htm

1.5 New Options for the dsnmmgr Command

Options have been added to the `dsnmmgr test` command. The `dsnmmgr test` command allows you to test the characteristics of your modem line. The new options are:

- -line

  The -line option gets values for the device, line type, location, node, port, script, and speed from the modem devices definition file, /usr/lib/dsn/modem /dsn_modem_devices.dat, so that you do not have to supply them in the command. You must specify the modem line's name, for example:

  ```
  # dsnmmgr test hdlc -line dsn-000
  ```

  You can override individual values from the modem devices definition file by entering the option for the value on the command line. For example, to use all the values from line dsn-000 but override the speed, enter this:

  ```
  # dsnmmgr test hdlc -line dsn-000 -speed 38400  ...
  ```

  Note that most `test` commands require the dialed network address (dna) option. Because the dna is not in the modem devices definition file, you must specify this option. A complete command example is as follows:

  ```
  # dsnmmgr test dial -line dsn-000 -dna m/719-555-1234
  ```

- -verbose

  This option displays the test parameters for confirmation before the test begins. For client tests of the wire, dial, hdlc, and api levels, a message reminds the tester to start the test server before doing the client test. Verbose is enabled by default. Disable it by entering -noverbose.

The `dsnmmgr test wire` command now accepts the -speed option for the DTE speed. Also, -speed permits a flow control specifier. Append the letter 'H' to the speed to specify RTS/CTS (hardware) flow control. For example:

- To specify 19200 baud with XON/XOFF flow control:

  ```
  # dsnmmgr test wire -speed 19200
  ```

- To specify 19200 baud with RTS/CTS flow control:

  ```
  # dsnmmgr test wire -speed 19200H
  ```

Note: The flow control type works for hardwired ports (direct attachments) only. Terminal server ports do not appear to accept the flow control change although they do accept the speed change. Therefore, for a terminal server (LAT), manually set the flow control type on the port.

For more information on the `dsnmmgr` command, see the dsnmmgr.8dsn reference page.

1.6 New Versions of Compaq's DIGITAL UNIX Are Supported

DSNlink Version 2.1A ran on DIGITAL UNIX versions 3.2, 3.2C, and 4.0. DSNlink Version 2.3 for Compaq's DIGITAL UNIX runs on DIGITAL UNIX Versions 4.0b and 4.0d.

1.7 Lynx Version 2.8 Displays the Command Line Documentation

In DSNlink Version 2.1A, the online help was displayed by Lynx Version 2.3. The DSNlink Version 2.3 help is displayed by Lynx Version 2.8.

1.8 Multi-Tech and Hayes Modem Scripts Have Been Modified

The following changes have been made to support additional Hayes and Hayes compatible modems:

- Previously there was one script for the HAYES OPTIMA 288 modem. In DSNlink Version 2.3, there are two scripts: hayes.ddsf_src, for software (XON/XOFF) flow control, and hayeshw.ddsf_src for hardware (CTS/RCS) flow control. These scripts dial most Hayes modems. The scripts may require modifications for some Hayes and Hayes compatible modems.
- The command &K4 specifies XON/XOFF flow control. Previously, the commands &K2 and &K4 could be used for XON/XOFF flow control. The DSNlink Version 2.1A script used &K2.
- The scripts operate in verbose mode.
- When dialing out there was a timing problem between the issuance of the CONNECT... message and the raising of the DCD signal, which caused the connect message to not be seen and dialing attempts failed. This problem is fixed in the current scripts.

The Multi-Tech modem scripts have been modified to operate in verbose (word) mode. This allows them to handle newer modems as they are developed without rewriting the scripts.

If you have a previous version of DSNlink and your Hayes or Multi-Tech script continues to function well, do not replace it with the newer scripts.

1.9 Pipeline Depth Can Be Adjusted for the Network Exerciser

You can now adjust the pipeline depth in the Network Exerciser using the command `dsnnetex -depth (1-127)`. Pipeline depth is the maximum number of unacknowledged messages sent to the host. Adjusting the pipeline depth is useful for troubleshooting network congestion which might occur if you run multiple DSNlink applications at the same time.

This example makes the pipeline depth 49 messages:

```
% dsnnetex -depth 49
```

The default pipeline depth is 7.

2
Fixed Problems

The following problems existed in DSNlink Version 2.1A and DSNlink Version 2.1. They have been fixed in this release.

2.1 File Copy Fixes

The notes in this section are fixes to the DSNlink Version 2.1A File Copy application.

2.1.1 Analysis Tools Required a Service Request Number

Previously: The Analysis Tool option did not work unless you supplied a service request number.

Currently: This problem has been fixed. You do not need a service request number to use analysis tools.

2.1.2 The Start Copy Button Remained Dimmed

Previously: In the File Copy application after a successful file transfer, the Start Copy button is properly dimmed. However, if you start a second file copy operation by changing the Access Number field, the button remained dimmed when it should become active.

Currently: After a successful file transfer, the File Copy button changes from dimmed to active when you make a change in any field of the File Copy window.

2.1.3 File Copy Warns About Missing Service Request Numbers Before Connecting to the Host

Previously: When you used the command line interface to the File Copy application but did not include the service request number in the `dsncopy` command, DSNlink did not notify you of the missing number until connections to the host were underway.

Currently: When no analysis tool is specified, DSNlink notifies you if the service request number is missing before starting the connection process.

2.1.4 File Copies Failed to Disks with More than 2GB of Space

Previously: File copies from the host to your system failed if your disk had more than 2GB of free space.

Currently: This problem has been fixed.

2.1.5 File Copy Ignored the Local Authorizations File

Previously: File Copy ignored the local authorizations file and allowed all DSNlink users to use File Copy.

Currently: File Copy processes the statements for the dsn_file application in the local authorizations file, /usr/lib/dsn/config/dsn_local_auth.dat.

2.2 Fixed ITS Problems

The following problems with the Interactive Text Search application (ITS) have been fixed.

2.2.1 ITS Ignored Settings for Pagination, View, and Highlight

Previously: ITS ignored the settings for pagination, view, and highlight. Pagination was always on, view could not be set so that articles always appeared in an editor, and highlight was always on, which highlights the query words in articles.

Currently: You can change the default settings in the configuration file or during the ITS session.

2.2.2 ITS Displayed Wrong Message for Invalid Dates

Previously: If you ran ITS in the DECwindows Motif interface and entered invalid dates in the Beginning Date or Ending Date fields, such as Dec 1 98 (the year must have four digits), Dec 41, 1998, or Febry 2, DSNlink displayed a message that 0 articles were found. The message should have been that the date was invalid.

Currently: If you enter an invalid date, a message tells you the date syntax is invalid.

2.3 Fixed Modem Problems

The following are fixes to the modem transport.

2.3.1 Some Modem Line Hangups Were Not Detected

Description: Modem daemons could hang in an online state if an incoming modem connection was dropped before a link could get started and the hangup signal was not detected. This situation could occur with improper modem or terminal server port settings.

Currently: Immediately upon gettig HDLC synchronization and going online the modem daemon starts a deferred hangup timer. If no application links are started within the timeout period (typically 90 seconds), the daemon will hang up and reset the line. This prevents the modem daemon from hanging in the online state.

2.3.2 The Modem Speed Was Always 9600 Baud

Description: No matter what modem speed setting was specified in the /usr/lib /dsn/modem/dsn_modem_devices.dat file, the modem baud rate was 9600.

Currently: This problem is fixed.

2.3.3 Modem Scripts Could Loop

Previously: Several of the modem scripts went into a loop between the script's last two sections when the value 0 was not returned by the modem after receiving the modem-specific commands.

Currently: This problem has been fixed in the affected modem scripts, which are for the Multi-Tech, Hayes, and Codex modems.

2.3.4 Interrupting the Modem Daemon Caused a CMA Error

Previously: An abnormal DTE line termination sometimes resulted in the modem daemon stopping with a CMA-F-IN_USE error. The following is an example of the error message in a modem daemon run log, /usr/lib/dsn/modem /dsn_run_pstn_dsn_01.log:

```
«ks» 40000002.09:38:13 Link (33,31) on line 'dsn_01' state change from
DONE to ----.
«ks» 40000002.09:38:15 Link (37,35) on line 'dsn_01' state change from
REFUSED to ----.
%CMA-F-IN_USE, object referenced is already in use
%CMA-F-IN_USE, object referenced is already in use
```

Currently: This problem has been fixed.

2.3.5 Modem Trace on the dsnmail Command Caused Errors

Previously: The 't' trace flag on the DSNMODEMAPI_TRACE logical name caused DSNlink mail to fail. The following is an example of the commands that caused the problem:

```
# setenv dsnmodemapi_trace t
# exit
% dsnmail x.tmp smith@cscabc.digital.dsn -subj "test"
```

Currently: The 't' trace flag no longer causes this problem.

2.4 UIDs Greater than 32767 Resulted in an Infinite Loop

Previously: In DSNlink Version 2.1A if the person using DSNlink had a user identification (UID) greater than 32767, DSNlink either went into an infinite loop or the process abnormally terminated.

Currently: DSNlink Version 2.3 for Compaq's DIGITAL UNIX supports UIDs greater than 32767.

2.5 Setting the Language Variable Distorted the Contents of Authentication Keys

Previously: When entering the contents of authentication keys, the characters were translated if a language variable was set on the DSNlink system. This is an example of the Language variable:

```
LANG=de_DE.ISO8859-1
```

When installing DSNlink, the prompt for the authentication key displayed a file name with incorrect characters for the access number. For example, entering the access number 0300B200100-A4000 resulted in a prompt such as following for the authentication key:

```
Enter the MD5-DIGITAL-0300c200100-æ4000 authentication key [no default]:
```

Capital letters were mapped to other characters.

Currently: This problem has been fixed.

2.6 Mail with a DSNlink System Locator Was Not Forwarded

Previously: DSNlink mail delivery failed when SMTP mail servers were configured to do reverse name lookups to prevent impersonation. The reverse name lookup could not verify the validity of the sender's address because of the DSNlink system locator, for example, michaels@wynken.12345.dsn.

Currently: This problem has been fixed.

2.7 Fixes to the Service Request Application

The notes in this section are fixes to the DSNlink Version 2.1A Service Request Application.

2.7.1 The Supportcenter Option Was Ignored by Some Commands

Previously: The following commands ignored the -S (Supportcenter) option when you included it on the command line:

- dxdsnaug
- dxdsncopy
- dxdsncreate
- dxdsnfetch
- dxdsnreview

Currently: When you enter a command, such as dxdsnfetch -S cscabc.digital.dsn, the DSNlink Fetch window appears with cscabc.digital.dsn entered in the Support Center field.

2.7.2 Service Request Application Stopped After Connection Errors

Previously: If the DECwindows Motif interface was used to review or fetch service requests and there was an error connecting to the host, the next mouse action in the window stopped the application and generated this error:

```
DECthreads Last Chance handler: thread 1 exiting on status exception
0x177db005
Exception: Invalid memory address (dce / thd)
```

Currently: This problem has been fixed.

2.8 Network Exerciser Shows Message Transfer Rate in Baud

Previously: The Network Exerciser measured the message transfer rate in bytes per second (Bps). Customers could not easily compare it to the expected baud rate.

Currently: The message transfer rate is now closer to the baud rate. The change appears in the Network Exerciser window and in the command line interface for the `dsnnetex` command in the Results of Test section. The label Bps Average Transfer Rate is now Effective Baud Rate.

2.9 Authentication Key Prompt Appears When You Add Access Numbers

Previously: When you used the DSNlink Setup utility to add access numbers no prompt appeared for the authentication keys for the new access numbers. You had to exit the utility to create the authentication keys.

Currently: When you use menu item c on the DSNlink Setup utility to add access numbers, a prompt appears for the authentication key for each access number.

3
Known Problems and Restrictions

3.1 Restrictions

3.1.1 The Year Part of Dates Must Have Four Digits

Restriction: To ensure that DSNlink does not misinterpret dates beginning in the year 2000, you must enter all years with four digits. Previously, you could enter either two or four digits for the year. Without this requirement, DSNlink might interpret the date Jan 01, 01 as January 01, 1901 when the intended date was January 01, 2001.

You enter dates in the following places:

- ITS, when you search for articles based on their last technical review date
- Service requests, when you fetch lists of open or closed service requests based on their dates
- The local and remote authorizations files when you allow or disallow access to DSNlink applications and include the year in the date
- Configuration file parameters that specify a date, such as Its.BeginDate

Some date formats without the year imply the current year. The date formats dd month (01 January), dd-month (01-Jan), and month dd (Jan 01) force the application to use the current year.

If you do not enter a four-digit year, DSNlink displays an error message.

3.1.2 The Modem Must Be Started from a Privileged Account

Restriction: You must start the modem from a privileged account for the created process to have the necessary privileges to write to the /usr/lib/dsn/logs/ directory.

If a nonprivileged user stops and starts the modem line, the modem is available for use, but no logging occurs to the modem daemon run log. This is an example of the message when a nonprivileged user starts the modem line:

```
% dsnmmgr start line
DSNlink T2.3-EL0 for Digital UNIX Modem Manager Utility
Copyright (c) 1989, 1998 by Digital Equipment Corporation
Digital Equipment Corporation Proprietary Service Tool
All Rights Reserved

sh: /usr/lib/dsn/logs/dsn_run_pstn_line_000.log: cannot create
Modem line line-000 has started.
Started 1 lines, 0 already running, 0 start errors for specified lines
```

When you use applications, no messages warn you that the modem daemon run log, dsn_run_pstn_line_000.log, in the previous example, is not logging modem activity.

3.1.3 The Editor Must Be Invokable in Read-Only Mode and a Full Path Defined

Restriction: If you define an editor for use with the Interactive Text Search (ITS) application, you must enter the entire path to the editor and specify an editor that can be invoked in read-only mode. If DSNlink cannot invoke the specified editor, it uses vi.

3.1.4 The Modem Transport Is Supported on the Gateway Only

Restriction: The modem transport can be configured for use only between your DSNlink gateway and the Compaq host. Therefore, you cannot configure the DSNlink modem transport on nodes that connect to a DSNlink gateway.

3.1.5 Your TCP/IP Node Name Must Be Fully Qualified

Restriction: Your TCP/IP hostname must be fully qualified. Whenever you connect to Compaq, the DSNlink host learns how to connect back to your system. If you connect using TCP/IP, DSNlink provides your TCP/IP hostname to Compaq. If this TCP/IP hostname is not fully qualified, Compaq cannot resolve this name to get back to you.

A fully-qualified TCP/IP hostname looks like this:

```
node.company.com
```

Do not confuse the fully-qualified TCP/IP hostname with the DSNlink node name, which can be just the node name.

To check the hostname, enter this command:

```
% hostname
```

Solution: If the name is not a fully-qualified TCP/IP hostname, do the following:

1. Use the DSNlink Setup utility, menu item t (Change the TCP/IP Configuration), to enter the fully-qualified name.
2. To start the DSNlink Setup utility, enter this command:

   ```
   # /usr/sbin/dsnsetup
   ```

3. From the DSNlink Setup utility menu, choose item v (Run the Installation Verification Procedure).

   This procedure gives the DSNlink host your fully-qualified hostname.

4. Contact your Compaq Customer Support Center and ask a specialist to send you a mail message or to use the Network Exerciser to test the connection from Compaq to your system.

3.1.6 Mosaic Version 2.4 Does Not Save Some Help Files

Restriction: Mosaic Version 2.4, which is included in the DSNlink kit, cannot save the online help as PostScript files when the LANG environment variable is set to some language/codeset combinations, for example, ja_JP.sdeckanji. If you attempt this operation, a message says "Unable to save document." In some languages the file is saved, but PostScript viewers such as dxvdoc cannot display it, and PostScript printers cannot print it.

This restriction does not apply to the English online help. You can save them as PostScript files.

3.1.7 Mosaic Cannot be Invoked if the Documentation Subset is Not Installed

Restriction: If you install DSNlink and do not install the documentation subset, Mosaic, which displays the online help, cannot be invoked. This is the error message:

```
DsnHelp::display_mosaic_page: cannot exec /usr/bin/dsnmosaic:
No suchfile or directory
DsnHelp::display_mosaic_page: child unexpectedly died:
         ifexited=1
         exitstatus=00000001
         ifsignalled=0
         termsig=-1
```

3.1.8 Using mailsetup(8) To Do a "Quick Setup" Disallows DSNlink Mailing Lists and Flash Mail

Description: If mailsetup(8) is used to perform a quick setup, the DSNlink mailing list entries created in /var/adm/sendmail/aliases are ignored by the newaliases(8) command. The newaliases(8) command issues this error message as it ignores each entry:

```
/var/adm/sendmail/aliases: line n: cannot alias non-local names
```

Furthermore, when the DSNlink system is configured as a mail hub, customers cannot receive flash mail from the Customer Support Center.

Workaround: Reconfigure sendmail to not use the DSNlink node as a hub.

3.2 File Copy Problems

The following are problems found in the File Copy application.

3.2.1 File Copies by Specialists from a Customer's System Are Not Supported

Description: DSNlink developers intended to allow specialists to copy files from customers' DSNlink systems to the Compaq host, if customers requested that service. This feature was not implemented on the host system. Consequently, specialists cannot copy files from customers' systems even if asked to do so.

However, the kit still contains the directory, /usr/lib/dsn/public/outgoing/, which was intended to be the directory where customers placed files for specialists to copy to the host. Also, there is a configuration file parameter, FileCopy.PullPath, which defines the outgoing files directory. The directory and parameter have no function.

Workaround: No action is required.

3.2.2 Server Log Files Have Debugging Information

Description: File copy server log files, DSN$LOGS:DSN_FILE_SERVER.LOG, contain debugging information in addition to the file copy records. The files are created when specialists copy files to your system.

Workaround: None.

3.2.3 History Log Does Not Have Outgoing File Copy Records

Description: The history log file, /usr/lib/dsn/logs/dsn_history.log, does not have records for files you copy to Compaq with the File Copy application. The history log file does record host-initiated file copies.

Workaround: None.

3.3 Installation, Communication, and Configuration Problems

3.3.1 Recreating the Route Map Does Not Remove the X Flag

Description: After changing Customer Support Centers (CSCs) and rebuilding the route map, the route map entry for the new CSC has an X flag, which prevents connections to that CSC. For example, this is the entry for a new CSC:

```
digital/cscnew  m/pstn.800-222-1111/dsn_nsd     10400   X
```

Workaround: Edit the route map, /usr/lib/dsn/config/routemap, and remove the X flag.

3.3.2 DSNlink Via X.25 Disables x29login

Description: Using the DSNlink Setup utility, dsnsetup, to change the X.25 configuration disables x29login.

Workaround: None.

3.3.3 Modem Line Appears to Start When Attempted by a Nonroot User

Description: When a nonroot user enters the `dsnmmgr start line` command, the line appears to start, but does not. This is the message:

```
% dsnmmgr start line
sh: /usr/lib/dsn/logs/dsn_run_pstn_line_000.log: cannot create
Modem line line-000 has started.
Started 1 lines, 0 already running, 0 start errors for specified lines
```

This command shows that the line was not started:

```
% dsnmmgr show line

-- No lines found --
```

Workaround: Become root before starting the modem line.

3.3.4 Modem Daemon Does Not Detect a Hangup from a tty Port

Description: The modem daemon does not detect a line hangup on directly connected tty ports. It detects a hangup correctly on LAT ports.

Workaround: None.

3.3.5 Command Line Fails When Using dxdsn -display

Description: The following command does not create DSNlink windows:

```
# dxdsn -display hostname:0
```

The command `dxdsn` appears on the display "hostname:0", but all future attempts to create windows from that dxdsn invocation result in a message that includes this error:

```
Error parsing command; syntax error
  <display>.
Command syntax error.
```

Workaround: Do not use this method to invoke DSNlink.

3.3.6 The X.25 Transport Does Not Work with X.25-Routers

Description: The X.25 transport does NOT work with DSNlink if you use an X.25-router. If you configure X.25 and a router is involved, the connection to Compaq appears to work. However, the host cannot connect to your system to reply to communications, and, therefore, several functions will not work.

Warning: Do not configure X.25 for use with DSNlink Version 2.3 for Compaq's DIGITAL UNIX if your X.25 network includes an X.25-router.

The X.25 transport does work if the X.25 nodes are local. When all the X.25 nodes are local, the host can use X.25 to respond to your communications.

3.3.7 Missing Quotation Mark Causes a DsnBufferBase Index Error

Description: A missing closing quotation mark in the final entry of the following files prevents DSNlink from invoking applications:

- /usr/lib/dsn/config/dsn_config.dat, the configuration file
- /usr/lib/dsn/config/dsn_remote_auth.dat, the remote authorizations file
- /usr/lib/dsn/config/dsn_local_auth.dat, the local authorizations file

The error occurs if the last item has a beginning quotation mark (") but no ending mark. For example:

```
  Local.Node:     "Wynken
```

This is a sample error message when you attempt to invoke DSNlink or any of its applications:

```
DsnBufferBase index error:
        data=46408
        allocated_length=64
        used_length=27
        offending index=26
Abort process (core dumped)
```

Solution: Check the files listed in the Description section for a missing closing quotation mark ("). If one is missing, add it to the entry. For example:

```
  Local.Node:     "Wynken"
```

3.3.8 Modem Wire Test Generates Device Errors

Problem: The `dsnmmgr test wire` command generates a device error message such as the following:

```
# dsnmmgr test wire -device LTA99 -node DSNLINK_9 -port PORT_9 -count 10
 .
 .
 .
Test for DsnModem layers
========================

Establishing connection, please wait...
Connection established
Sending 10 loopback messages of size 0 to 4000...
           0 messages,  2689/
--- DsnModem::DEVERR, Error on device <Null>
  - %SYSTEM-F-IVCHAN, invalid I/O channel
```

Workaround: None. Do not run the wire test.

3.3.9 European MultiModem Scripts May Need Modifications

Description: The MULTIMODEM.DDSF_SRC modem script may need modifications to work properly in Europe. The following Multi-Tech modems produce these errors:

- The MT1932 modem does not accept the AT&S1 command
- The MT1432 modem does not accept AT&C1 command

If you use a MT2834 modem, no modifications to the script are necessary.

Workaround: Contact your Customer Support Center if you need assistance with modifying the modem scripts.

3.4 Interactive Text Search (ITS) Problems

3.4.1 Reading Some Articles Results in an Internal Exception

Description: In the DECwindows Motif interface, when reading some articles in ITS, these messages appear after a few lines:

```
exception system: exiting dues to multiple internal errors:
        exception dispatch or unwind stuck in infinite loop
        exception dispatch or unwind stuck in infinite loop
```

This problem appears in a very few articles.

Workaround: Read the article in the command line interface. The problem does not occur there.

3.4.2 Beginning and Ending Dates Find Unexpected Articles

Description: The Beginning and Ending Date fields and the -beg and -end options, which can be used with database searches, do not work as explained in the documentation. ITS displays articles dated the day after the specified beginning date. It should include articles with the Beginning date. The Ending Date field displays articles with dates on the specified day. It should find articles dated before but not on the Ending date.

Workaround: In the Beginning Date field, or in the -beg option, enter the day before the date you want to use as the beginning date for searches. For example, if you want to find articles dated February 14, 1999, enter February 13, 1998 for the beginning date. Likewise, to find articles dated before but not on a date, enter the day before in the Ending date field or the -end qualifier.

3.5 Mail Problems

The errors in this section pertain to DSNlink mail.

3.5.1 You Cannot Reply to Mail from Compaq

Description: When you receive mail from Compaq, such as Flash mail, surveys, marketing information, and responses to your service requests, if you reply to the mail, DSNlink appears to send the reply, but it is not delivered.

Workaround: Contact Compaq by telephone to respond to mail. To respond to replies to service requests, use the Augment Service Request function of the Service Request application.

3.5.2 A Mail File Cannot Be Restored from the Pulldown Menu

Problem: If you include a file name when you invoke the DSNlink Mail window, the specified file properly appears in the Message Body window. However, if you delete the file and then try to restore it by choosing its name from the pop-up menu (where the file name is listed), only the file name appears in the Message Body area.

This is an example of a command that includes a file:

```
% dxdsnmail test.txt
```

Workaround: In the DSNlink Mail window, use the Include File... menu item. When you choose the file name using Include File..., the file appears in the Message Body window.

3.6 Maintenance or Multiple Application Problems

3.6.1 History Log File Does Not Show Some Rejected Applications

Description: The history log file, /usr/lib/dsn/logs/dsn_history.log, may not indicate that the host system rejected an application. Rejection occurs when the host system disallows access by applications, usually because the service contract has expired.

When you run the application, such as the Network Exerciser, a message appears that the application is rejected. However, the history log file has this information:

- Network Exerciser–the record's status is CANCEL followed by the test results
- File copy–no record
- Create service request–a failure record
- ITS–a failure record
- Fetch service requests–two records, one for failure, one for success
- Review service requests–a failure record
- Service request augmentations–a failure record

A failure record should appear for the application.

Workaround: Contact your Customer Support Center if the application is rejected even if the history record indicates it succeeded.

3.6.2 Time Zone Differences Are Not Processed

Description: When dates are processed on the Compaq host, there is no compensation for differences in time zones. The host runs OpenVMS, which uses the number of seconds since January 1, 1970 00:00 in local time. UNIX systems use the number of seconds since January 1, 1970 00:00 GMT (an absolute time). This can cause clocks on host OpenVMS systems to appear to be as much as 24 hours different from UNIX systems.

For example, customers in time zones several hours ahead of the host's time zone could get unexpected results when searching for articles in the ITS technical support databases. For example, a search for articles dated April 1 when it is still March 31 in the host's time zone results in no articles. However, if articles are added later in the day on April 1, a later search will find them.

Workaround: None.

3.6.3 A History Log File Created by DSNlink Has Wrong Permissions

Description: A system administrator deletes the history log file in /usr/lib /dsn/logs/dsn_history.log but does not create a new one. DSNlink creates a new history log file for the next person to run DSNlink. That person becomes the owner of the file. Therefore, subsequent users cannot use DSNlink because the file's ownership prevents DSNlink from writing records to the file.

Workaround: Become root. Correct the permissions and ownership on the file by starting the DSNlink Setup utility and using menu item g, Specify the DSNlink Group. To start the utility, enter this command:

```
# /usr/sbin/dsnsetup
```

After you enter the group name for DSNlink files, DSNlink changes the file ownership.

3.7 Network Exerciser Problems

3.7.1 The Network Exerciser Does Not Support the LZW_DYN Compression Option

Description: When you specify the LZW_DYN (dynamic Lempel-Ziv-Welsh) compression algorithm when using the Network Exerciser, a message tells you the operation failed and the LZW_DYN compression option is unsupported.

Workaround: Use the Network Exerciser compression option None to test the effects of compression. If you then click on LZW, DSNlink compresses the Network Exerciser messages the same way it compresses all transferred data.

3.7.2 Error Messages Overwrite Statistics Report

Description: If an error occurs when using the Network Exerciser in the command line interface with the modem transport, the error message overwrites the statistics line. For example,

```
--- DsnTransport::MODEMERR, Modem error982/39982/0   C726
  - DsnModem::LINK_ABORT, Data link aborted by session entity
```

Workaround: If possible, perform the test in the DECwindows Motif interface. If modem errors appear there or when you use other applications, contact your Customer Support Center.

3.7.3 The Network Exerciser Has Not Implemented Mirror Options or Language Recognition

Problem: The mirror clarity items for the Network Exerciser utility are not implemented, except for Pure, which returns bytes without any manipulations. The unimplemented mirror options are: Invert, Reject Always, Reverse, Rotate, and Scratched. Tests with those items selected run as Pure tests. There are no error messages that the items are not implemented.

The Language field is also ignored.

Workaround: None.

3.8 Service Request Application Problems

3.8.1 A Service Request Augmentation Fails with a CSC Record Locked Error

Description: You attempt to augment a service request and get the following message:

```
--- DsnSra::PROBAUGFAIL, Problem augmentation failed
  - DsnSra::REMOTEFAIL, Failure detected by server
  - DsnSra::PROBAUGFAIL, Problem augmentation failed
  - %DSN-E-CSCRECLOCK, CSC call tracking database record locked
```

Workaround: This error occurs when a specialist locks your initial service request to update it at the same time you submit the augmentation. Wait a few minutes and then resubmit the augmentation.

4

Starting DSNlink and Getting Help

4.1 Starting DSNlink

To display the DSNlink main window, use this command:

```
% dxdsn
```

To use DSNlink in the command line interface, see the online help (use the `dsnhelp` command) for the commands, options, and arguments you need to enter.

4.2 A Guide to the Documentation

DSNlink has no hardcopy documentation. The documentation consists of PostScript and text files you can print and embedded online documentation that is displayed by the Mosaic or Lynx browsers.

The files you can print are:

- *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Service Tool Description*
- *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Quick Reference Card*
- *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Installation Guide*
- *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Release Notes*
- The Readme file

For the location of the files, see the Postinstallation chapter of the *DSNlink Version 2.3 for Compaq's DIGITAL UNIX Installation Guide*.

4.3 Getting Help

In the DECwindows interface, use the Help menus or Help buttons to access the online help. It is displayed by the Mosaic browser, which is included in your kit. The Help menu includes the *DSNlink Getting Started*, which shows you how to use the DSNlink applications.

In the command line interface, the `dsnhelp` command displays a list of documents you can access. The information is displayed in the Lynx browser, which is included in the kit.