Maintenance Update Notice: DG/UX® System 5.4 Release 3.10 for AViiON® Computers Maintenance Update MU03

December 1995

Part number 017-600068-03

This release notice applies to the following models:

P001
Q001

This Maintenance Update is intended to protect your system from known instances of improper program execution or data corruption. Please install this Maintenance Update immediately. This Maintenance Update must be installed only on AViiON computers running DG/UX System 5.4R3.10, including those with previous 5.4R3.10 Maintenance Updates installed.

Special instructions for installing this Maintenance Update are documented in this notice. You must follow these instructions in order to properly install this Maintenance Update.

Restrictions and Trademarks

Data General Corporation
4400 Computer Drive
Westboro, MA 01580

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017-600068-03

Revision History: Effective with:

Revision 1 – November 1994 DG/UX System 5.4 Release 3.10 Maintenance Update MU01
Revision 2 – June 1995 DG/UX System 5.4 Release 3.10 Maintenance Update MU02
Revision 3 – December 1995 DG/UX System 5.4 Release 3.10 Maintenance Update MU03

Contents

1 Introduction

This Maintenance Update Notice describes Maintenance Update (MU) op-sys-x_5.4R3.10.MU03 for DG/UX™ 5.4R3.10 Systems running on Data General's family of AViiON™ computers. In addition, this notice may also include information not currently available in the product manuals (e.g., information developed after the current manuals were printed, or corrections to current manuals).

This printed notice always accompanies the software. You may print additional copies of this notice after you have installed the product. A copy suitable for line printers can be found in the file **/usr/release/op-sys-x_5.4R3.10.MU03.un**. In the event of differences between the printed copy of the notice and the copy on the distribution medium, the printed copy takes precedence.

This Maintenance Update consists of the following parts:

Part Description	Part Number
DG/UX for AViiON Systems Maintenance Update op-sys-x_5.4R3.10.MU03 Notice	017-600068-03
DG/UX for AViiON Systems Maintenance Update op-sys-x_5.4R3.10.MU03 Tape Media	079-600414-03
DG/UX for AViiON Systems Maintenance Update op-sys-x_5.4R3.10.MU03 CD-ROM Media	068-600125-03

2 Product Description

2.1 Individual Patches

For DG/UX 5.4R3.10 Data General releases patches named and numbered on a per product basis. The products using this convention include, but are not limited to, dgux, tcpip, nfs, X11, gcc, and networker. Data General will produce and deliver individual patches in response to Software Trouble Reports (STRs). For DG/UX Revision 5.4R3.10 the naming convention is:

dgux_5.4R3.10.p*mm*

where *mm* refers to the individual patch number for the product. Per-product patch numbers are unique and always increase numerically.

During the support period for a product, it may be necessary to release multiple patches that replace the same file. In this case, a higher numbered patch will contain all fixes released in lower numbered patches. Therefore, when you have two patches to the same file, always load the patch with the higher number. The patch with the lower patch number is superseded by the patch with the higher number. Patches which do not replace previously modified files are separate entities (not cumulative).

2.2 Maintenance Update

Starting with DG/UX 5.4R3.00, all product improvements and enhancements for the two most current revisions of DG/UX completed since the last MU (or since the release of a new revision) are collected into a new MU for each revision approximately every three months. A Maintenance Update contains a number of product packages. Each product package is applicable to a single product. Maintenance Updates for a given revision are cumulative, so you should load the MU with the highest number available for your revision. MUs are not complete releases. You must load a DG/UX revision (such as DG/UX 5.4R3.10) before loading its associated Maintenance Update.

The Maintenance Update name is of the form:

op-sys-x_*base*R*rev*.MU*nn*

where *base* is the base-release number, *rev* is the revision number against which this MU may be applied, and *nn* is the number of this MU. MUs are numbered sequentially, starting at 01 for each new revision of DG/UX.

This Maintenance Update is named:

op-sys-x_5.4R3.10.MU03

This Maintenance Update is a bootable, standalone sysadm format tape or CD-ROM which contains one product package per sysadm loadable package. The product packages on this op-sys-x_5.4R3.10.MU03 Maintenance Update are:

- dgux
- dgux.man
- gcc
- networker
- nfs
- tcpip
- X11
- xdt

3 Environment

3.1 Hardware

DG/UX Operating System Maintenance Update op-sys-x_5.4R3.10.MU03 will run on all hardware supported by DG/UX 5.4R3.10.

3.2 Software

Your system needs to be running DG/UX 5.4R3.10 system software. Apply this Maintenance Update ONLY on DG/UX 5.4R3.10.

Note the following file system free space requirements needed for successfully loading this Maintenance Update:

- There must be 6635520 bytes (12960 blocks) of free space plus the space required for a new kernel (approximately the same amount of space required for your current kernel) in the root file system.
- There must be 6864896 bytes (13408 blocks) of free space in the usr file system.
- If you are loading the networker package, there must be 2539520 bytes (4960 blocks) of free space in the /usr/opt/networker file system.
- If you are loading the X11 package, there must be 327680 bytes (640 blocks) of free space in the /usr/opt/X11 file system.

3.2.1 Trusted DG/UX

This Maintenance Update must NOT be applied to C2/B1 Trusted DG/UX systems without first contacting your Data General Software Support Center and obtaining the necessary instructions.

4 Patches

The product package numbers below indicate those individual patches that are included in this Maintenance Update. All non-obsoleted patches with numbers equal to or less than the Maintenance Update product package numbers are included in this Maintenance Update.

- Product Package "dgux", number dgux_5.4R3.10.139
- Product Package "tcpip", number tcpip_5.4R3.10.22
- Product Package "nfs", number nfs_5.4R3.10.05
- Product Package "networker", number networker_5.4R3.10.02
- Product Package "X11", number X11_5.4R3.10.05
- Product Package "xdt", number xdt_5.4R3.10.01

- Product Package "gcc", number gcc_5.4R3.10.05
- Product Package "dgux.man"

For those systems that have loaded individual DG/UX 5.4R3.10 patches, extensions, supplements, or special releases, follow this outline to determine if you need to reload any of these previously applied packages.

Any previously released Maintenance Updates for this revision are included in this Maintenance Update, and will be properly overwritten.

This Maintenance Update supersedes the following items previously released for DG/UX 5.4R3.10:

- DG/UX System 5.4R3.10 Maintenance Update MU01
- DG/UX System 5.4R3.10 Maintenance Update MU02

If previously applied patches have an individual patch number greater than the Maintenance Update product package number, then they must be reloaded. For example, if you have installed the DG/UX patch dgux_5.4R3.10.p145 it must be reloaded because its patch number, 145, is greater than 139, which is the dgux package number (dgux_5.4R3.10.139), for this Maintenance Update.

If previously applied patches have a patch number less than or equal to the Maintenance Update product package number, then these patches have either been superseded by this Maintenance Update or obsoleted and do NOT need to be reloaded. For example, if you have installed the DG/UX patch dgux_5.4R3.10.p96 it does not need to be reloaded because its patch number, 96, is less than or equal to the DG/UX package number 139, dgux_5.4R3.10.139, for this Maintenance Update.

If previously applied patches or extensions appear to conflict with this Maintenance Update, call the Customer Support Center for assistance.

5 Product Improvements

As part of Data General's ongoing product improvements, resolutions to the following Software Trouble Reports are included in this Maintenance Update.

EURO-610000022	NASC-19902	NASC-21293
EURO-610000062	NASC-19932	NASC-21320
EURO-610000066	NASC-19940	NASC-21368
EURO-615400558	NASC-19955	NASC-21375
EURO-616504873	NASC-19971	NASC-21378
EURO-616601063	NASC-20020	NASC-21380
EURO-616603586	NASC-20022	NASC-21384
EURO-617110908	NASC-20043	NASC-21402
EURO-618115408	NASC-20071	NASC-21421
EURO-61820326	NASC-20090	NASC-21443
EURO-618203260	NASC-20091	NASC-21449

EURO-618402330	NASC-20102	NASC-21532
FRA-1126	NASC-20103	NASC-21537
FRA-1131	NASC-20106	NASC-21563
FRA-1170	NASC-20119	NASC-21605
FRA-1179	NASC-20122	NASC-21673
GER-15237	NASC-20157	NASC-21695
GER-15243	NASC-20167	NASC-21760
GER-15248	NASC-20205	NASC-21812
GER-15297	NASC-20237	NASC-21830
GER-15303	NASC-20244	NASC-21838
GER-15312	NASC-20282	NASC-21901
GER-15315	NASC-20283	NASC-21926
GER-15322	NASC-20315	NASC-21945
INTL-1056	NASC-20340	NASC-21976
INTL-1059	NASC-20390	NASC-21978
INTL-1064	NASC-20397	NASC-21993
INTL-1103	NASC-20404	NASC-22021
INTL-1125	NASC-20405	NASC-23585
INTL-1126	NASC-20430	NSQA-16176
INTL-1152	NASC-20469	NSQA-17674
INTL-1157	NASC-20545	NSQA-18578
INTL-1186	NASC-20554	NSQA-18951
ITAL-190	NASC-20576	NSQA-19067
JAPN-873	NASC-20605	NSQA-19437
JAPN-874	NASC-20626	NSQA-19790
JAPN-884	NASC-20633	NSQA-20157
JAPN-887	NASC-20644	NSQA-20678
JAPN-889	NASC-20680	NSQA-20972
JAPN-893	NASC-20751	NSQA-20980
JAPN-909	NASC-20762	NSQA-21013
JAPN-910	NASC-20771	NSQA-21014
JAPN-925	NASC-20780	NSQA-21015
JAPN-932	NASC-20806	NSQA-21131
NASC-15800	NASC-20822	NSQA-21705
NASC-16668	NASC-20879	NSQA-21927
NASC-17104	NASC-20885	NSQA-22043
NASC-17602	NASC-20888	NSQA-22044
NASC-18585	NASC-20898	NSQA-22246
NASC-18717	NASC-20910	NSQA-22392
NASC-19125	NASC-20918	NSQA-22894
NASC-19252	NASC-20920	NSQA-23130
NASC-19377	NASC-20986	NSQA-23237
NASC-19432	NASC-20996	NSQA-23257
NASC-19573	NASC-21005	NSQA-23750
NASC-19676	NASC-21028	NSQA-24376
NASC-19690	NASC-21101	NSQA-24407
NASC-19692	NASC-21108	NSQA-24865
NASC-19698	NASC-21117	NSQA-25324
NASC-19701	NASC-21136	NSQA-25350
NASC-19717	NASC-21152	NSQA-25761
NASC-19728	NASC-21154	NSQA-28371

NASC-19732	NASC-21165	RTP-13954
NASC-19747	NASC-21169	RTP0-13952
NASC-19775	NASC-21208	SWE-810
NASC-19783	NASC-21215	SWE-837
NASC-19807	NASC-21218	SWE-848
NASC-19831	NASC-21229	SWIT-736

A set of additional product improvements has also been included in this Maintenance Update. Contact your local Data General Support Center for descriptions of these STRs and other product improvements.

6 Notes and Warnings

6.1 VME Token Ring Adapter Support

This MU includes support for the Model 7416A VME Token Ring Adapter. This controller is an upgraded version of the existing Model 7146 controller and requires the software modifications that are supplied in this MU.

6.2 Support for the SCSI-2 8mm Tape Library

This MU includes support for the SCSI-2 8mm Tape Library, DG Model 61008 (also referred to as a tape jukebox), which is accessed by the NetWorker Jukebox Software Module, DG Model Q062A. The NetWorker product uses the **sj()** device driver to control this SCSI-2 tape jukebox device. Consult the **sj(7)** man page and documentation provided with the NetWorker Jukebox Software Module and with the SCSI-2 8mm Tape Library for more information.

Configuring the **sj()** device into your kernel is similar to configuring an **st()** (SCSI tape) or **sd()** (SCSI disk) device. For example, include the line

```
sj(ncsc(),3)
```

in your system file to configure a SCSI jukebox at SCSI ID 3 on the primary **ncsc** controller.

The **sj()** driver creates device nodes in **/dev/mc** (medium changer). These nodes are similar to the existing device nodes in **/dev/rmt** and **/dev/pdsk** created by the **sd()** and **st()** SCSI disk and tape drivers. The existence of the device node **/dev/mc/sj(ncsc@30(FFFFC000,7),3,0)** indicates that the SCSI jukebox entry in the example above was found and properly configured during system boot. This device node is used by the Legato NetWorker application to access the tape jukebox and perform operations as specified in the Standard Jukebox Interface (SJI).

Slot numbers displayed in the LCD on the front panel of the tape jukebox will not match slot numbers referred to in messages from NetWorker. The number of a particular slot will be reported by NetWorker as "n" and by the tape jukebox as "n-1". For the tape jukebox, slot numbers begin at zero. For NetWorker, slot numbers begin at one.

Systems with sj() devices and Opstar Jukebox jb() device(s) may encounter configuration conflicts

if sj() and jb() devices exist on the same SCSI bus and the wildcard (*) is included in the sj() or jb() configuration device specification. To avoid such conflicts, the system file used to configure sj() and jb() devices should not use the wildcard character (*) in the device specification for sj() and jb() devices.

For example, the following entries in the system file are incorrect and would cause a configuration conflict:

```
sj(ncsc(),*)
jb(ncsc(),*)
```

The following entries would not cause a conflict:

```
sj(ncsc(),3)
jb(ncsc(),2)
```

6.3 Minimum Memory Configuration Restriction

DG/UX has a minimum memory requirement of 16MB. However, this amount of memory may be insufficient if you have a large disk configuration. If an error is reported during installation of DG/UX stating that you are out of swap space, you will need to increase the size of your physical memory to proceed. Note that this will only be a problem for configurations with minimum memory and a large amount of disk storage.

6.4 Updating NetWorker

The NetWorker package included in this Maintenance Update is applicable to both Single Client NetWorker and Multi Client NetWorker systems. The sysadm Software Package List option will refer to this package as Legato NetWorker Single Client whether you have Single Client NetWorker or Multi Client NetWorker loaded on your system.

After loading the MU, the type of NetWorker client software on your system will be the same as it was before loading the MU. If you had Single Client NetWorker software on your system before loading the MU, you will still have Single Client NetWorker software. If you had Multi Client NetWorker software on your system before loading the MU, you will still have Multi Client NetWorker software.

6.5 VT100 Terminal Type During Software Installation

When using standalone sysadm to load and install software, DG/UX assumes that your terminal is (or is emulating) a vt100 terminal type. On a graphics console, the window used for standalone sysadm is called the Kernel Terminal Emulator, which supports a subset of vt100 features. On an ASCII terminal the TERM variable is set to vt100.

6.6 New Disk Drive Support

This MU introduces AV/Alert support for the Model 61012 (2 Gb) and Model 61014 (4 Gb) disk drives.

6.7 SCSI Terminal Server Support

This MU contains code required in order to use the SCSI Terminal Server, Model 7442, on your DG/UX System 5.4R3.10 system. Each Terminal Server supports 16 asynchronous lines; up to 4 Terminal Servers may be configured on a single SCSI bus. See the manual "Installing the SCSI Terminal Server Models 7442 and 7443" (part number 014-002386) for more information.

6.8 Disk Failover and Multi-Disk File Systems

This MU does not correct the following problem in admfailoverdisk(1M): admfailoverdisk unnecessarily puts duplicate file system information into the giveaway(4) database. This adversely affects the behavior of the RC script for failover on a system where a file system spans multiple physical disks. On such a system, the failover databases are left in an inconsistent state following a reboot after a failover of disks. This problem is corrected by patch dgux_5.4R3.10.p118. Please contact your local Data General Support Center to obtain this patch if you expect this behavior to affect your system.

6.9 Case Conversion of Sendmail Aliases

Sendmail.8 will convert aliases to all lowercase if the "u" flag (M_USR_UPPER) isn't set in a mailer definition. To have sendmail NOT convert to lowercase, add the "u" flag to the F= flags of a mailer definition in the /etc/sendmail.cf file.

For example, for the prog mailer,

Change:

```
Mprog,    P=/bin/sh,  F=PlsDFMe,  S=10, R=20, A=sh -c $u
```

To: (add the "u" flag to F=)

```
Mprog,    P=/bin/sh,  F=PlsDFMeu,  S=10, R=20, A=sh -c $u
```

7 Files

Note that the /etc/issue file contains, as usual, information specific to this update:

DG/UX Operating System MU 5.4R3.10.MU03

This information may be displayed by ttymon preceding login banners under ttymon control.

The files in the list below have been modified since the release of the previous revision or Maintenance Update.

dgux:

```
/dgux
/dgux.installer
/etc/svcmgr.rclinktab.proto
/etc/svcmgr.rcrmtab.proto
/sbin/fsck
/sbin/init
/sbin/mount
/sbin/setup.d/root/dgux_5.4R3.10.p136__r.svcmgr.do
/sbin/su
/sbin/ttymon
/usr/bin/admdevice
/usr/bin/admfailoverdisk
/usr/bin/admfailoverip
/usr/bin/admiopath
/usr/bin/admpdisk
/usr/bin/admshareddiskdevice
/usr/bin/admtarget
/usr/bin/admuserlicense
/usr/bin/admvdisk
/usr/bin/compress
/usr/bin/env
/usr/bin/failovermon
/usr/bin/idi.ascii
/usr/bin/idi_confirm
/usr/bin/idi_doop
/usr/bin/idi_echo
/usr/bin/idi_error
/usr/bin/idi_exec
/usr/bin/idi_log
/usr/bin/idi_warning
/usr/bin/ksh
/usr/bin/lex
/usr/bin/login
/usr/bin/lpstat
/usr/bin/lsd
/usr/bin/nps
/usr/bin/nsar
```

```
/usr/bin/sar
/usr/bin/uncompress
/usr/bin/who
/usr/bin/zcat
/usr/dglib/libc.so.1
/usr/dglib/libtrust.so
/usr/etc/master.d/dgux
/usr/etc/master.d/odg
/usr/etc/probedevtab
/usr/include/aa_internals.h
/usr/include/sys/_int__d6_pthread.
/usr/include/sys/_int_dg_fru_ioctl.h
/usr/include/sys/_int_unistd.h
/usr/include/sys/dg_listio.h
/usr/include/sys/pthread.h
/usr/lib/acct/acctprc2
/usr/lib/libc.so
/usr/lib/libdgc.so
/usr/lib/libdgc.so.1
/usr/lib/libform.a
/usr/lib/libmenu.a
/usr/lib/librte.a
/usr/lib/libthread.so
/usr/lib/libtrust.a
/usr/lib/libtrust.so.1
/usr/lib/lp/bin/lp.termprinter
/usr/lib/lp/lpNet
/usr/lib/lp/lpsched
/usr/lib/lp/postscript/postprint
/usr/lib/nls/msg/C/exterr.cat
/usr/lib/sa/sadc
/usr/lib/saf/ttymon
/usr/lib/sysadm/C/menus/88OpenPackage.menu
/usr/lib/sysadm/C/menus/Accounting.menu
/usr/lib/sysadm/C/menus/DGUXPackage.menu
/usr/lib/sysadm/C/menus/Disk.menu
/usr/lib/sysadm/C/menus/Help.menu
/usr/lib/sysadm/C/menus/Kernel.menu
/usr/lib/sysadm/C/menus/LocalRemote.menu
/usr/lib/sysadm/C/menus/Route.menu
/usr/lib/sysadm/C/menus/Session.menu
/usr/lib/sysadm/C/menus/SLIP.menu
/usr/lib/sysadm/C/menus/Target.menu
/usr/lib/sysadm/C/menus/UUCP.menu
/usr/lib/tcload/models/syac/VDC16A
/usr/options/dgux.name
/usr/options/dgux_5.4R3.10.MU03.name
/usr/release/dgux_5.4R3.10.MU03.fl
/usr/release/dgux_5.4R3.10.s01.sn
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/sadm/sysadm/bin/admlp
/usr/sbin/.dft_threshold
```

```
/usr/sbin/dgs_strerr
/usr/sbin/dgs_syslog
/usr/sbin/dgsvc_bthresh
/usr/sbin/dgsvc_d
/usr/sbin/dgsvc_down
/usr/sbin/dgsvc_inetd
/usr/sbin/dgsvc_mid
/usr/sbin/dgsvc_pwd
/usr/sbin/dgsvc_sizer
/usr/sbin/dgsvc_timd
/usr/sbin/dgsvcmon
/usr/sbin/dump2
/usr/sbin/groupadd
/usr/sbin/groupmod
/usr/sbin/idid
/usr/sbin/init.d/chk.devlink
/usr/sbin/init.d/chk.strtty
/usr/sbin/init.d/rc.dgrmserv
/usr/sbin/init.d/rc.dgserv
/usr/sbin/init.d/rc.shareddisk
/usr/sbin/mkfs
/usr/sbin/restore
/usr/sbin/setup.d/usr/dgux__2.u.sysadm.do
/usr/sbin/shareddiskd
/usr/sbin/svcmgr
/usr/sbin/swapon
/usr/sbin/useradd
/usr/sbin/usermod
/usr/sbin/usermond
/usr/sde/m88kdguxelf/usr/bin/ld
/usr/sde/m88kdguxelf/usr/bin/lint
/usr/sde/m88kdguxelf/usr/lib/libc.a
/usr/sde/m88kdguxelf/usr/lib/libp/libc.a
/usr/sde/m88kdguxelf/usr/lib/lint1
/usr/sde/m88kdguxelf/usr/lib/lint2
/usr/sde/m88kdguxelf/usr/lib/llib-lc.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lcrypt.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lcurses.ln
/usr/sde/m88kdguxelf/usr/lib/llib-ldgc.ln
/usr/sde/m88kdguxelf/usr/lib/llib-ldl.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lelf.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lform.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lgen.ln
/usr/sde/m88kdguxelf/usr/lib/llib-ll.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lld.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lm.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lmalloc.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lmenu.ln
/usr/sde/m88kdguxelf/usr/lib/llib-lpanel.ln
/usr/sde/m88kdguxelf/usr/lib/llib-ly.ln
/usr/src/uts/aviion/cf/Libs.dgux
/usr/src/uts/aviion/cf/Libs.odg
```

```
/usr/src/uts/aviion/cf/system.odg.proto
/usr/src/uts/aviion/ext/dg_lwp.h
/usr/src/uts/aviion/lb/boot.a
/usr/src/uts/aviion/lb/cc.a
/usr/src/uts/aviion/lb/cien.a
/usr/src/uts/aviion/lb/cm.a
/usr/src/uts/aviion/lb/conf.a
/usr/src/uts/aviion/lb/csm.a
/usr/src/uts/aviion/lb/deb.a
/usr/src/uts/aviion/lb/dev.a
/usr/src/uts/aviion/lb/dev_scsi_2_def.h
/usr/src/uts/aviion/lb/dev_scsi_def.h
/usr/src/uts/aviion/lb/df.a
/usr/src/uts/aviion/lb/dfm.a
/usr/src/uts/aviion/lb/dgen.a
/usr/src/uts/aviion/lb/ether.a
/usr/src/uts/aviion/lb/exc.a
/usr/src/uts/aviion/lb/ext.a
/usr/src/uts/aviion/lb/faam.a
/usr/src/uts/aviion/lb/ffm.a
/usr/src/uts/aviion/lb/fpx.a
/usr/src/uts/aviion/lb/fs.a
/usr/src/uts/aviion/lb/fsck.a
/usr/src/uts/aviion/lb/hfm.a
/usr/src/uts/aviion/lb/hken.a
/usr/src/uts/aviion/lb/ilacc.a
/usr/src/uts/aviion/lb/init.a
/usr/src/uts/aviion/lb/inst.a
/usr/src/uts/aviion/lb/io.a
/usr/src/uts/aviion/lb/iscd.a
/usr/src/uts/aviion/lb/lance.a
/usr/src/uts/aviion/lb/lfm.a
/usr/src/uts/aviion/lb/llc.a
/usr/src/uts/aviion/lb/lm.a
/usr/src/uts/aviion/lb/madge.a
/usr/src/uts/aviion/lb/misc.a
/usr/src/uts/aviion/lb/mpl.a
/usr/src/uts/aviion/lb/ms.a
/usr/src/uts/aviion/lb/mts.a
/usr/src/uts/aviion/lb/nfm.a
/usr/src/uts/aviion/lb/nfs.a
/usr/src/uts/aviion/lb/nk.a
/usr/src/uts/aviion/lb/nu.a
/usr/src/uts/aviion/lb/odg.a
/usr/src/uts/aviion/lb/pc.a
/usr/src/uts/aviion/lb/pdep.a
/usr/src/uts/aviion/lb/pefn.a
/usr/src/uts/aviion/lb/pm.a
/usr/src/uts/aviion/lb/ps.a
/usr/src/uts/aviion/lb/psm.a
/usr/src/uts/aviion/lb/qm.a
/usr/src/uts/aviion/lb/rm.a
```

```
/usr/src/uts/aviion/lb/sc.a
/usr/src/uts/aviion/lb/scall.a
/usr/src/uts/aviion/lb/sci.a
/usr/src/uts/aviion/lb/sfm.a
/usr/src/uts/aviion/lb/sig.a
/usr/src/uts/aviion/lb/so.a
/usr/src/uts/aviion/lb/srv.a
/usr/src/uts/aviion/lb/sts.a
/usr/src/uts/aviion/lb/stubs.a
/usr/src/uts/aviion/lb/su.a
/usr/src/uts/aviion/lb/sys.a
/usr/src/uts/aviion/lb/tm.a
/usr/src/uts/aviion/lb/ts.a
/usr/src/uts/aviion/lb/uac.a
/usr/src/uts/aviion/lb/uc.a
/usr/src/uts/aviion/lb/ufm.a
/usr/src/uts/aviion/lb/vdev.a
/usr/src/uts/aviion/lb/vdm.a
/usr/src/uts/aviion/lb/vitr.a
/usr/src/uts/aviion/lb/vm.a
/usr/src/uts/aviion/lb/vmc.a
/usr/src/uts/aviion/lb/vp.a
/usr/stand/boot.aviion
/usr/stand/sysadm
```

dgux.man:

```
/usr/catman/a_man/man1/dgs_strerr.1m.z
/usr/catman/a_man/man1/dgs_syslog.1m.z
/usr/catman/a_man/man1/dgsvc_d.1m.z
/usr/catman/a_man/man1/dgsvc_inetd.1m.z
/usr/catman/a_man/man1/dgsvc_mid.1m.z
/usr/catman/a_man/man1/dgsvc_pwd.1m.z
/usr/catman/a_man/man1/dgsvc_sizer.1m.z
/usr/catman/a_man/man1/dgsvc_timd.1m.z
/usr/catman/a_man/man1/dgsvcmon.1m.z
/usr/catman/a_man/man1/svcmgr.1m.z
/usr/catman/a_man/man7/sa.7.Z
/usr/catman/a_man/man7/sj.7.Z
/usr/options/dgux.man.name
/usr/options/dgux.man_5.4R3.10.MU03.name
/usr/release/dgux.man_5.4R3.10.MU03.fl
/usr/release/op-sys-x_5.4R3.10.MU03.un
```

gcc:

```
/usr/lib/gcc-2/gcc-cc1
/usr/lib/gcc-2/gcc
/usr/options/gcc.name
/usr/options/gcc_5.4R3.10.MU03.name
/usr/release/gcc_5.4R3.10.MU03.fl
/usr/release/op-sys-x_5.4R3.10.MU03.un
```

networker:

```
/usr/opt/networker/bin/networker
/usr/opt/networker/sbin/nsrd.multi
/usr/opt/networker/sbin/nsrd.multi_juke
/usr/opt/networker/sbin/nsrd.single
/usr/opt/networker/sbin/nsrd.single_juke
/usr/options/networker.name
/usr/options/networker_5.4R3.10.MU03.name
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/release/networker_5.4R3.10.MU03.fl
/usr/sbin/setup.d/usr/networker_5.4R3.10.p01__1.u.setup.do
```

nfs:

```
/usr/options/nfs.name
/usr/options/nfs_5.4R3.10.MU03.name
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/release/nfs_5.4R3.10.MU03.fl
/usr/sbin/mountd
/usr/sbin/nfsd
/usr/sbin/rpc.lockd
```

tcpip:

```
/usr/bin/bootpd
/usr/bin/ftpd
/usr/bin/mailq
/usr/bin/newaliases
/usr/bin/remsh
/usr/bin/rlogin
/usr/bin/rlogind
/usr/bin/sendmail
/usr/bin/smtp
/usr/bin/snmptraprecv
/usr/bin/telnetd
/usr/dglib/snmp_hp.so
/usr/etc/master.d/tcpip
/usr/include/netinet/tcp.h
/usr/options/tcpip.name
/usr/options/tcpip_5.4R3.10.MU03.name
/usr/release/tcpip_5.4R3.10.MU03.fl
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/src/uts/aviion/lb/arp.a
/usr/src/uts/aviion/lb/conf.a
/usr/src/uts/aviion/lb/inet.a
/usr/src/uts/aviion/lb/inso.a
/usr/src/uts/aviion/lb/ip.a
/usr/src/uts/aviion/lb/netinet.a
/usr/src/uts/aviion/lb/sl.a
/usr/src/uts/aviion/lb/tcp.a
```

X11:

```
/usr/opt/X11/bin/idi.motif
/usr/opt/X11/bin/Xdg
/usr/opt/X11/bin/xdm
/usr/options/X11.name
/usr/options/X11_5.4R3.10.MU03.name
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/release/X11_5.4R3.10.MU03.fl
```

xdt:

```
/usr/opt/xdt/rules/modules/preTrash
/usr/options/xdt.name
/usr/options/xdt_5.4R3.10.MU03.name
/usr/release/op-sys-x_5.4R3.10.MU03.un
/usr/release/xdt_5.4R3.10.MU03.fl
```

A complete list of files included in each product package in Maintenance Update op-sys-x_5.4R3.10.MU03 is contained in a file in the **/usr/release** directory.

8 Installation Instructions

8.1 Loading the Maintenance Update from Tape or CD-ROM

This Maintenance Update is a bootable tape or CD-ROM and consists of those packages listed in the section titled "Maintenance Update", and contains the files (listed by package) in the section of this document titled "Files".

IMPORTANT: LOAD ONLY THE PACKAGES THAT APPLY TO YOUR SYSTEM.

IMPORTANT: Do not load this Maintenance Update on a C2/B1 Trusted DG/UX system without first contacting your Data General Software Support Center and obtaining the necessary instructions.

Follow the instructions below for "Bringing Your System Down to the SCM", then proceed to either "Booting Standalone Sysadm from the Maintenance Update Tape" or "Booting Standalone Sysadm from the Maintenance Update CD-ROM". After booting standalone sysadm, proceed to "Preparing Your Disks".

Installing this Maintenance Update on systems that are partners in a failover configuration may require that each system be installed while its failover partner is powered off. This is required when the disks in the dual-initiator configuration share a single SCSI bus in the following way. When the Maintenance Update tape is booted, the installer kernel will size all SCSI busses on a system, using the SCSI ID set for an adapter in the PROM or, if none is set, defaulting to SCSI ID 7. If using the default SCSI ID 7, and if the failover partner host is up and running and using SCSI ID 7 on the same bus, the failover partner will panic. If your system is configured in this manner, you must install each system with the other powered off.

If neither of the systems in the dual-initiator configuration uses SCSI ID 7, you may install the Maintenance Update on either system while the other is running. If one of the systems in the dual-initiator configuration uses SCSI ID 7, the SCSI ID of the adapter on the other system must be set in PROM to use a SCSI ID other than 7 in order for you to be able to install the Maintenance Update on one system while the other is running.

8.1.1 Bringing Your System Down to the SCM

You must bring your system down to the SCM to boot this Maintenance Update tape or CD-ROM.

To bring your system down to the SCM, perform the following:

```
# cd /
# shutdown -g0 -y
# halt
```

8.1.2 Booting Standalone Sysadm from the MU Tape

Insert the Maintenance Update tape in your tape drive.

The following instructions assume that your tape drive is configured at SCSI ID 4.

To boot the tape on an AViiON model 100, 200, 300, 400, 3000, 4000 or 4300:

```
SCM> b st(insc(),4)
```

To boot the tape on the Ciprico SCSI tape drive of an AViiON model 5000, 6000, 7000 or 8000:

```
SCM> b st(cisc(),4)
```

To boot the tape on the SCSI II tape drive of an AViiON model 5000, 6000, 7000 or 8000:

```
SCM> b st(dgsc(),4)
```

To boot the tape on an AViiON model 450, 500, 530, 550, 4500, 4600, 5500, 8500, or 9500:

```
SCM> b st(ncsc(),4)
```

8.1.3 Booting Standalone Sysadm from the MU CD-ROM

Insert the Maintenance Update CD-ROM in your CD-ROM drive.

The following instructions assume that your CD-ROM drive is configured at SCSI ID 3.

To boot the CD-ROM installer kernel on an AViiON model 100, 200, 300, 400, 3000, 4000 or 4300:

```
SCM> b sd(insc(),3) -i
```

To boot the CD-ROM installer kernel on the Ciprico SCSI CD-ROM drive of an AViiON model 5000, 6000, 7000 or 8000:

```
SCM> b sd(cisc(),3) -i
```

To boot the CD-ROM installer kernel on the SCSI II CD-ROM drive of an AViiON model 5000, 6000, 7000 or 8000:

```
SCM> b sd(dgsc(),3) -i
```

To boot the CD-ROM installer kernel on an AViiON model 450, 500, 530, 550, 4500, 4600, 5500, 8500, or 9500:

```
SCM> b sd(ncsc(),3) -i
```

8.1.4 Preparing Your Disks

You must now prepare your disks:

1. Choose the option "Install Software" from the Standalone Sysadm Main Menu.

2. Choose the option "Prepare physical disks" from the Install Software Menu. Prepare all of your physical disks except those you do not wish to convert to vdm format and those that are to be used as raw disks. If you have previously converted your physical disks to vdm format, you still must prepare your physical disks.

3. Select the option "Prepare virtual disks" from the Install Software Menu and accept the defaults.

4. Proceed to the section of this Notice titled "Loading the Maintenance Update Software".

8.1.5 Loading the Maintenance Update Software

Select the option "Load Software". When prompted to specify software packages to load, type "?" to list the packages, and select only those packages appropriate to your system. **WARNING: If you are loading this Maintenance Update from within the same sysadm session used to load DG/UX System 5.4 Release 3.00 or 3.10, do not select the option "All"; instead, select each individual package or range of packages you wish to load.**

Your response to the question "Automatically rebuild kernel after loading?", as well as the remainder of the installation procedure, will depend upon whether or not you wish to retain any kernel customizations.

If you wish to retain any kernel customizations, proceed to the section titled "Building a Kernel Using Your Custom Kernel". If you have not customized your kernel, or do not care to retain any kernel customizations, proceed to the section titled "Building a Kernel Using Autoconfigure".

8.1.6 Building a Kernel Using Your Custom Kernel

WARNING: automatically rebuilding your kernel after loading will cause you to lose system file customizations. To retain your current customized system file, reply "no" to the question "Automatically rebuild kernel after loading?".

You will then see the message "Checking for recommended file system mount points. NOTE: You may specify additional file systems which should be mounted during the installation." To see a list of all unmounted file systems, respond "?" to the prompt:

```
Mount other file system(s)? [no]
```

To mount any of these file systems, respond "y" when this prompt is displayed again. Note that if /var is a separate file system, it should be mounted at this time.

The following packages require setup:

```
dgux_5.4R3.10.p136
networker_5.4R3.10.p01
```

If you are loading any of these packages, they must be set up in order for this MU to be properly loaded. Set up the appropriate packages at this time.

Note that any packages loaded prior to installing this Maintenance Update that require setting up but for which the setup was not previously performed will be set up at this time.

Reply "no" when prompted to build a kernel. Accept the defaults for rebooting the kernel, but re-type the boot string, replacing "-3" with "-1" so that the system will boot to run level 1. Once the system has rebooted, login as root. Invoke sysadm:

```
# sysadm
```

Select option **System->Kernel->Build** to rebuild your custom kernel. If your system is a diskless server, its client kernels must also be rebuilt. Once your kernel has been rebuilt you must reboot your system in order for the changes to take effect.

If you are loading the MU from CD-ROM media, proceed to the section titled "Deregistering the CD-ROM Drive". If you are loading the MU from tape media, the load and installation are now complete.

8.1.7 Building a Kernel Using Autoconfigure

If you have not customized your kernel, or do not care to retain any kernel customizations, accept the default response (yes) to the questions "Automatically rebuild kernel after loading?" and "Automatically reboot after building kernel?".

You will then see the message "Checking for recommended file system mount points. NOTE: You may specify additional file systems which should be mounted during the installation." To see a list of all unmounted file systems, respond "?" to the prompt:

```
Mount other file system(s)? [no]
```

To mount any of these file systems, respond "y" when this prompt is displayed again. Note that if /var is a separate file system, it should be mounted at this time.

Once the software is loaded, accept the defaults for setting up software packages. In order to properly load this Maintenance Update, all of the following packages must be set up:

```
dgux_5.4R3.10.p136
networker_5.4R3.10.p01
```

If you are loading any of these packages, they must be set up in order for this MU to be properly loaded. Set up the appropriate packages at this time.

Note that selecting the defaults will cause any packages loaded prior to installing this Maintenance Update that require setting up but for which the setup was not previously performed to be set up at this time.

The kernel will be rebuilt and rebooted automatically at this point. If your system is a diskless server, its client kernels must also be rebuilt.

If you are loading the MU from CD-ROM media, proceed to the section titled "Deregistering the CD-ROM Drive". If you are loading the MU from tape media, the load and installation are now complete.

8.1.8 Deregistering the CD-ROM Drive

If you loaded this Maintenance Update from CD-ROM media, use **sysadm Device->Disk->Physical->Deregister** to deregister the CD-ROM drive. Make sure you give the full name of the device. If you do not know the name, typing "?" when you are prompted for the device will give you the list of all currently registered devices. Once the CD-ROM drive is deregistered, you may remove the media from the drive.

8.2 Creating a Maintenance Update Tape

If the Maintenance Update is delivered as a tar format file that consists of images that are sysadm loadable, you can create a sysadm bootable tape that can be applied on any AViiON system with a tape drive. First you will need to extract the images into an empty directory. To extract these images from the tar format file, perform the following steps:

```
# mkdir -p /var/tmp/MU
# cd /var/tmp/MU
# tar xvf <full_path_name_of_file>
```

To create a sysadm bootable tape that can be loaded and installed using the directions in this notice, follow the steps below:

```
# cd /var/tmp/MU
# ./Docs/MakeTape /dev/rmt/<tape_device>
```

--- End of Maintenance Update Notice ---