Revised - AWS 95 Tune-Up 2.0 README (5/96)

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TOPIC ---

This article is the revised Apple Workgroup Server (AWS) 95 Tune-Up 2.0 Read Me.

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The Tech Info Library article titled "Locating Vendor Information" can help you search for a particular vendor's address and phone number.

DISCUSSION --

AWS 95 Tune-Up (2.0)
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The enclosed file is self-extracting archive containing a Disk Copy 1440K disk image.

To use, download, double-click on the file to expand it and use Disk Copy to create the disk.

Disk Copy can be found in the Utilities folder posted here.

ABOUT THE APPLE WORKGROUP SERVER 95 TUNE-UP

To get the maximum performance and minimize problems with your server, it is important to install the Apple Workgroup Server 95 Tune-Up. This update tells you how to install the tune-up software, lists the files affected by the changes to the server software, describes in more detail the improvements provided by the tune-up, and lists changes of interest to developers.

Tune-up Installation Procedure

The tune-up Installer automatically installs the software that you need to take advantage of the enhancements.

The Apple Workgroup Server 95 Tune-Up updates the A/UX operating system from version 3.1 to 3.1.1. The installation process doesn't affect any of the current kernel parameter settings.

Before You Begin

Before you begin the installation, be sure to back up all files and notify users that you will be shutting down the server in order to install the tune-up software. During the installation process, the system quits all programs running on the server; you must restart the server to complete the installation.

To perform the installation, you must be logged in to the server as "root". If your server is set up with the default configuration for file and print services, and the Autologin feature is enabled, you should be logged in as "root" automatically when you start the server. If your server is configured as a database server, you must log in as "root" by means of the Login dialog box.

Installing the Tune-Up Software

Make sure that you are logged in as "root" and then follow these steps:

1) Insert the disk you have just created.

   If the CommandShell application is the active application, the system displays this message: "This is a Macintosh disk. What do you want to use it as?" If this message appears, click the button labeled "Macintosh."

2) Double-click the Installer icon.

   This message appears: "You can only install the AWS 95 Tune-Up on the root volume, '/.' Please click Switch Disk to choose this disk."

3) Click Switch Disk until '/' is selected.

4) Click the Install button.

5) Click Continue to automatically quit all other running applications.

   The tune-up installation begins, and the system displays a progress bar and status messages during the process.

   The kernel is reconfigured; this process may take several minutes. After your server has loaded all of the appropriate tune-up software, the message "Installation successful" appears.

6) Click the Restart button to complete the installation.

NOTE: If you routinely back up the server's system files (for example, to tape), you should make a new backup after performing the installation, as the system

files will have been upgraded.

ReadMe for the Apple Workgroup Server 95

Tune-up 2.0

This document describes changes made to the latest release of the Apple Workgroup Server 95 system software, A/UX 3.1. You must be running A/UX 3.1 to install this software. If you are running an earlier version, call the Apple Order Center to order the AWS 95 Software Upgrade. After installing A/UX 3.1, then you can install this Tune-Up.

Notes on Installing the Tune-up

Installation takes approximately 5 minutes. The installer's on-screen messages will guide you through the installation process. You will be required to restart your system after the installation has completed, so be sure to prepare any clients ahead of time for a service interruption.

IMPROVEMENTS

Application support

- Use of Timbuktu Pro's v1.0.x TCP/IP connection method no longer causes the A/UX Macintosh environment to hang.
- A problem which caused AppleSearch indexing to fail under heavy load has been corrected.
- Color Central no longer hangs under heavy load.
- BeHierarchic and NowMenus no longer cause hangs or crashes of the Mac environment.

AppleTalk

- Routerless nets where the systems have unique network numbers but identical node numbers will no longer experience dropped packets which lead to major performance degradation.
- The ADSP stack now correctly completes a read request when no data is available on a half closed session. Previously, the read request was queued which could cause applications utilizing ADSP to hang.

A/UX File Manager

- The volume backup time is now correctly maintained for the virtual UNIX volume, `/'.
- The File Manager supports file names beginning with the bullet character, `•'. However, these characters were translated into dot, `.', on the UNIX filesystem to avoid a problem with the Finder interpreting files beginning with dot as drivers. A new environment variable, TBSEEDOTS, now prevents this translation. It is NOT set by default.
- Remote NFS filesystems having a space in their name no longer cause the File Manager to become confused.

- Unrecoverable disk read errors no longer cause the entire Mac environment to crash.
- Random failures during Finder copies and saving from applications to the server have been eliminated.
- The performance when extending the resource fork of an AppleSingle file on the UNIX filesystem has been improved dramatically. Currently if this occurred during a save of a large file (via an arbitrary application), it could take up to 3 times longer to save the file than normal. There should now be no measurable difference between a normal save and one that happens to extend the resource fork.
- A problem that caused save's from applications to fail with the message, 'File couldn't be saved because it couldn't be found' has been eliminated.
- The creator of the file /etc/fstab has been changed to TextEditor's signature.
- A 'find' of file or folder names that contain accented vowels (or other diacriticals) now works properly.

A/UX Kernel
- The A/UX kernel no longer panics if more than four Ethernet interfaces are installed.
- The console emulator no longer hangs if you stop <CTRL-S> the output.
- A kernel bus error, which could occur under heavy file I/O, has been corrected.
- Certain I/O operations no longer cause the kernel fault handler to panic the system.
- The FIONREAD ioctl no longer causes the system to hang when issued from a background process.
- A problem which caused the kernel's asynchronous I/O data structures to become corrupted has been fixed.
- NFS now maps client user IDs greater than 65533 to the anonymous user, "nobody".

UNIX Printing
- Lpr(1) now prints correctly via AppleTalk to the LaserWriter 810.
- The lpr(1) back-end utility for PostScript printing is now enscript(1). Therefore, lpr(1) now supports eight-bit characters and the Grave character, `, on all LaserWriters.

UNIX File Locking
- A problem which prevented the lock daemon from detecting contention between a process running on the server and a process running on the client has been corrected.
- The lock daemon, rpc.lockd, no longer fails after a connection timeout with the status monitor on another machine.
- Previously, on a system with NFS configured, some signals were ignored while a process was waiting on a lock.
- The lock daemon now supports version 3 of the lock protocol for PC-NFS clients.

Other UNIX Utilities
- The shutdown(1m) command no longer complains about RPC port mapper failures.

- The default rotational delay set by newfs(1m) is now zero microseconds.
- Previously, if you aborted an FTP connection to stop a transfer, the A/UX FTP server would shut down the control connection and the session would be lost.
- The 'cron' daemon no longer crashes after running 17576 jobs.
- The status daemon, rpc.statd, will now continue to operate when it cannot re-establish connections with other servers after a crash.

Of Interest to Developers
- The pap_write routine in the PAP server library now functions correctly.
- A process which blocks SIGALRM and then calls the sleep(3) function, no longer sleeps forever.
- The POSIX library, /lib/libposix.a, now includes versions of the lstat and fstat system calls which reference the POSIX-compliant stat structure.
- The strftime routine no longer hangs when called.
- For improved security, the gethostbyaddr routine now cross-checks information in the host databases.

Miscellaneous
- Under A/UX 3.1, if Password Checking is turned on in A/UX Startup, the MacPartition (boot volume) is hidden from all users, including the super-user. This has been corrected; the super-user (root) can always see the MacPartition.
- The new 250 MB, 500 MB, and 2 GB SCSI drives are now listed in /etc/disktab.
- The system date spontaneously changing to sometime in 2017 has been eliminated, along with the problem of Retrospect scripts calculating next execution times for a date and time in 2017.
- A system crash/hang could occur when using a remote client to open a FileMaker database that was represented by an 'alias', but that did not exist. This has been eliminated.
- The 'catsearchd' now uses roughly 15% less memory and finishes the initial scan at system startup in approximately 20% less time.

Important Note

It is important to note that for those who had installed/replaced other versions of TCP/IP daemons (most available from Internet) to provide more advanced Internet service that A/UX does not support, these customized daemons will be affected by the AWS 95 Tune_Up 2.0 since the Tune-Up 2.0 willo verwrite them. Further more, since these customized daemons may use different databases, the newly installed versions may not function correctly.

For this, these customers MUST re-install their customized daemons after installing the Tune-Up 2.0.

The TCP/IP daemons which are updated by the Tune-Up 2.0 are: inetd, in.ftpd, in.tftpd, in.remshd, and in.rlogind.

Here is the description of the changes to the TCP/IP daemons:

inetd

If inetd died, it left unbindable ports, requiring the system to be rebooted. Inetd now sets the REUSE socket option, so inetd can simply be restarted. Inetd now also caatches SIGHUP and re-reads its database, /etc/servers.

in.telnetd, in,ftpd, in,tftpd, in.remshd, in.rlogind

For improved security, the gethostbyaddr routine now cross-checks information in the host databases. These binaaries had to be re-0linked since the gethostbyaddr routine is not the sshared library.

in.ftpd (in addition to the gethostbyaddr change)

Previously, if you aborted an FTP connection to stop a transfer, the A/UX FTP server would shut down the control connection and the session would be lost.

In addition, it was discovered that larger buffer sizes could increase FTP transfer rates by as much as 20%.

Files Changed or Added by The Upgrade

- Files Changed or Added on the / Volume:

etc/catsearchd
etc/config.d/newunix
etc/cron
etc/disktab
etc/fs/ufs/mkfs
etc/fstab
etc/in.rlogind
etc/in.remshd
etc/inetd
etc/install.d/boot.d/ac
etc/install.d/boot.d/adsp
etc/install.d/boot.d/as
etc/install.d/boot.d/elap
etc/install.d/boot.d/nfs
etc/install.d/boot.d/ufs
etc/install.d/boot.d/svfs
etc/macgetty
etc/mount
etc/rpc.lockd
etc/rpc.statd
etc/RELEASE_ID
etc/shutdown
lib/libposix.a
lib/libc.a:gethostent.o
lib/libc.a:tempnam.o
lib/libc.a:tmpnam.o
lib/libc.a:mntent.o
lib/libc.a:strftime.o

lib/libc_s.a:gethostent.o
lib/libc_s.a:tempnam.o
lib/libc_s.a:tmpnam.o
lib/libc_s.a:mntent.o
lib/libc_s.a:strftime.o
mac/lib/Patches/Patch.067C
unix
usr/bin/atprint
usr/bin/enscript
usr/etc/in.ftpd
usr/etc/in.telnetd
usr/etc/in.tftpd
usr/lib/libat.a
usr/lib/libpaps.a
usr/lib/ps/enscript
usr/lib/sendmail
usr/spool/lpd/AppleTalk/ifilter
usr/spool/lpd/AppleTalk/nfilter
usr/spool/lpd/AppleTalk/ofilter

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Article Change History:
27 May 1996 - Updated for technical accuracy. Revised format.
13 May 1996 - Updated Timbuktu version numbers.

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