

UNIX System Administration Handbook

Corrections to Printing 2

In the following updates, changed words are italicized. Sometimes, changes are just described rather than written literally.

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Page xxxiv

Paul Kooros, a significant contributor, was inadvertently omitted from the Acknowledgments section.

Page 20

Erich Boleyn's GRand Unified Bootloader (GRUB), now maintained as part of the GNU project, is gaining popularity as an alternative to LILO and the Windows boot loaders. It offers a variety of advanced features. See www.gnu.org/software/grub for more information.

The book claims that Windows NT and Windows 2000 require their boot loaders to be installed in the MBR. This isn't always true; on the other hand, it isn't exactly false, either. On some systems, LILO will boot NT without any problem. Other systems don't seem to accept this configuration without crashing. We don't know what distinguishes one type of system from the other, although the exact partitioning of the disk may have some influence.

Page 28

In the third paragraph under the heading **Solaris startup scripts**, the directory name should be **/etc/default**, not **/etc/defaults**.

Page 92

FreeBSD's **useradd** command actually runs the **pw** command to make changes to the **passwd** and **group** databases. If you write your own scripts, you may find it helpful to use **pw** as well.

Page 131

There is some confusion in this chapter between the Veritas Volume Manager and the Veritas File System, both of which are available for HP-UX. However, only the Veritas File System is bundled with HP-UX. The default logical volume manager that is included with HP-UX (and that is described in this chapter) is a proprietary volume manager called LVM.

Page 132

To increase performance, implementations of disk mirroring use both sides of the mirror for reads during normal operation.

Page 139

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with HP-UX (and that is described in this chapter) is a proprietary volume manager called LVM.

Page 145

In the second paragraph, the default value for the kernel parameter `maxvgs` should be 10, not 20 as stated. Thus, the default range of values for `NN` is 00 to 09.

Page 172

Tape drive manufacturer OnStream has gone out of business. Its assets have been acquired by a Dutch group that plans to continue selling ADR drives under the OnStream brand name. Nevertheless, the future prospects for this product are extremely uncertain.

Page 185

The GNU version of `tar` handles files with holes correctly if you use the `-S` option when creating an archive. It is not necessary to use `-S` when restoring.

Page 205

Some GNU utilities (in particular, `zgrep`) can make it a lot more convenient to keep log files in a compressed format. It is also faster on some machines to read compressed data from the disk and decompress it on the fly; compressing old log files can be a double win.

Page 233

After copying the new kernel to `/boot`, you must also copy `/usr/src/linux/arch/i386/boot/System.map` to `/boot/System.map`.

Page 250

In the middle of the page, `devices/net/Space.c` should be `drivers/net/Space.c`

Page 255

The Linux loadable kernel module configuration file is **/etc/modules.conf**, not **/etc/conf.modules**.

Page 256

The Linux loadable kernel module configuration file is **/etc/modules.conf**, not **/etc/conf.modules**.

Page 257

The year of publication of **Linux Kernel Internals** is 1998, not 1997.

Page 267

The full name of the IEEE 802.2 LLC is the "Logical Link Control Layer", not the "Link Layer Control" as stated in the footnote.

Page 270

The URL given for the IANA assigned Ethernet numbers table is obsolete. Use www.iana.org/assignments/ethernet-numbers.

Page 276

The CIDR address breakdown on this page is messed up. Please substitute the following text:

"For example, suppose a site has been given a block of 8 class C addresses numbered 192.144.0.0 through 192.144.7.0 (in CIDR notation, 192.144.0.0/21). Internally, the site could use them as

- 1 network of length /21, 2,046 hosts, netmask 255.255.248.0
 - 8 networks of length /24, 254 hosts each, netmask 255.255.255.0
 - 16 networks of length /25, 126 hosts each, netmask 255.255.255.128
 - 32 networks of length /26, 62 hosts each, netmask 255.255.255.192"
-

Page 277

The URL referred to in the footnote, www.telstra.net/ops/bgptable.html, no longer exists. Check www.telstra.net/ops/bgp/index.html for current information.

Page 279

The correct URL for the CAIDA IPv4 address space utilization map is <http://www.caida.org/outreach/resources/learn/ipv4space>

Page 307

In footnote a of Table 13.15, `/etc/inet/inodes` should be `/etc/inet/ipnodes`.

Page 311

On the last line of the fourth paragraph of the section **Dynamic reconfiguration and tuning for Solaris**, the `set` option to `ndd` was improperly separated from the hyphen preceding it. This option should be entered as `-set`.

Page 317

The output of `netstat -nr` should show the gateway for the destination 127.0.0.1 as 127.0.0.1, not 127.0.0.

Page 326

In Table 13.21, `ip_echo_ignore_broadcasts` should be `icmp_echo_ignore_broadcasts`.

At the end of the first text paragraph, "The **defaults** subdirectory contains the default values as shipped," **defaults** should actually be **default**.

Page 331

The second excerpt on the page is missing a closing double quote on the last line. The last line should read:

```
route_212="-net 132.236.212.64 -netmask 255.255.255.192 132.236.212.6"
```

Page 371

The year of publication of the second edition of Christian Huiema's **Routing in the Internet** is 2000, not 1999.

The second edition of Bassam Halabi's book **Internet Routing Architectures** has been released. The publication year is 2000.

Page 375

Another major advantage of unshielded twisted-pair Ethernet is that the link to each machine is private. Machines in the same vicinity cannot overhear each other's network traffic.

Page 384

DSL connections are private to individual customers, while cable modem users normally share bandwidth with their neighbors. Cable modems can therefore be subject to congestion during busy periods. They are also considerably less secure.

Page 388

Regarding the expandability of fiber installations, we received this interesting report from a person at the University of Utah: "The University of Utah was the first large installation of air-blown fiber technology in North America. The technology was developed by British researchers and then commercialized by Sumitomo of Japan. Instead of buried fiber cables, we have buried hoses about 5cm in diameter; four of these enter the

math.utah.edu machine room. Each hose contains 6 or 8 transparent tubes, each of which holds 6 or more cladded fiber cables, each of which can contain 6 to 18 fibers (depending on whether single-mode or multi-mode fibers are used). A new fiber cable can be blown in or out of the transparent tube at a speed up about 1m/s, over a distance of up to 5000m. The result is massive expandability without ever digging another trench, and we are supremely glad that we chose this excellent technology."

Page 391

The title of the book cited as **The Complete Guide to Network Wiring** is actually **Cabling: The Complete Guide to Network Wiring**.

Page 466

The **dnssec-makekeyset** command no longer uses the keyword **now**. Use the notation **+XXX** to specify a time **XXX** seconds in the future.

Page 518

When used with an rsync server, rsync requires a module name as the first component of the destination, not a path name. The example rsync command should read:

```
rsync -gopt --password-file=/etc/rsync.pwd
      /etc/passwd lollipop::sysfiles
```

Page 519

The example **rsyncd.conf** file is missing some relevant options. The complete example should be:

```
[sysfiles]
path = /etc
secrets file = /etc/rsyncd.secrets
read only = false
uid = root
gid = root
hosts allow = distribution_master_hostname
```

The file shown as **rsynd.conf** is really called **rsyncd.conf**

Page 610

The feature referred to as `lmtP` is actually named `local_lmtP`:

```
FEATURE(`local_lmtP', `path-to-mail.local')
```

Page 616

The verbose delivery example uses `/usr/ucb/mail`, not `/usr/bin/mailx` as claimed (although the output would be identical).

Page 633

The collision rate on interface `hme1` is 0.13%, not 1.3%.

Page 666

In the last paragraph, `/usr/adm/inetd.sec` should be `/var/adm/inetd.sec`.

Page 672

It's worth mentioning that the protocol used by SSH was designed to withstand a wide variety of hacking methods, such as session hijacking and man-in-the-middle attacks.

Page 697

FreeBSD consults only `~ftp/etc/pwd.db`, not `~ftp/etc/passwd`. You must run the `pwd_mkdb` command after editing `~ftp/etc/passwd` to generate the hashed version. See the man page for details.

Page 706

Contrary to the statement at the top of page 706, it is becoming increasingly common for dedicated **UNIX** boxes to provide parallel ports.

Page 708

The **lprm** command does not always work perfectly across a network, especially if different platforms are involved in the printing transaction.

Page 709

Instances of the printer name "anchor-lw" should actually be "anchor-lj".

Page 713

Instances of the printer name "anchor-lw" should actually be "anchor-lj".

Page 726

Instances of the printer name "anchor-lw" should actually be "anchor-lj".

Page 729

Instances of the printer name "anchor-lw" should actually be "anchor-lj".

Page 731

An example at the top of the page shows the **-p** option to the **lp** command being used to select a destination for the print job. This should actually be the **-d** option.

Page 738

In the **Filters** section, the **lpr** option to disable filters is called **-Y**, not **/direct**. There is a printcap option called "direct" that has the same effect.

Page 746

We shouldn't have used the word "isolate" in the sentence "A ground strap worn on the wrist and attached to a special mat that you kneel on (most computers require you to show proper respect!) will isolate you properly." The purpose of a grounding strap is of course to *ground* you, which is the opposite of being electrically isolated.

Page 765

It's probably fair to say that quotas and process accounting have a slight impact on performance these days, rather than a "noticeable" impact.

Page 830

A final word on the origin of the name **comsat**, from Kirk McKusick: "...**comsat** and **biff** were written by Bill Joy one day when Heidi Stettner came in told him that her dog barked when the postman came, so why couldn't she get the same thing for email? **comsat** stands for 'communications satellite' (e.g., beaming down email?) and uses the same name as the ITS program with a similar function."