

Introduction

The Livingston Enterprises ComOS® 3.7.2 software release is now available for all Livingston PortMaster® products. This release is provided at no charge to all Livingston customers.

This release note documents commands and features added between ComOS release 3.7 and 3.7.2. Some of these features were also available on the PortMaster 3 in ComOS 3.7.1; there was no ComOS 3.7.1 release for the other PortMaster products.

Note – You must use PMconsole™ 3.5.3 when upgrading to ComOS 3.7.2; see "Upgrade Instructions" below. If you are running Windows 95 or Windows NT 4.0 you must use PMconsole for Windows 3.5.1.4. ComOS 3.7.2 uses roughly the same amount of memory as ComOS 3.7. Read "Upgrade Instructions" thoroughly before upgrading.

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New Features in ComOS 3.7.2

DHCP Proxy

ComOS 3.7.2 supports the new "set dhcp-server Ipaddress" command. In previous releases (and by default in ComOS 3.7.2) the PortMaster replies directly to a BOOTP request from a dial-in client. In ComOS 3.7.2, if you set a Dynamic Host Configuration Protocol (DHCP) Server on the PortMaster, the PortMaster does not reply directly to BOOTP requests but instead forwards BOOTP and DHCP requests to the DHCP server, as described in RFC 1542, "Clarifications and Extensions for the Bootstrap Protocol."

Alternate ChoiceNet® Server Is Now Supported

The "set choicenet 2 Ipaddress" command now sets an alternate ChoiceNet server. ChoiceNet requests for filter downloads are retransmitted every 15 seconds, site list requests are retransmitted every 5 seconds, and a global counter is incremented each time any request is retransmitted. At the fourth retransmission the PortMaster clears the counter and switches to using the other ChoiceNet server until the retransmission counter reaches 4 again.

Use the "set choicenet Ipaddress" command to set the primary ChoiceNet server to Ipaddress, and make it the active ChoiceNet server.

Access Filters Can Now Use ChoiceNet

Previously, ChoiceNet could be used only for packet filters. ChoiceNet can now be used for access filters for login users prompted for a host.

IPX Spoofing Now Supports Both Microsoft and Novell

ComOS now supports IPX keepalive spoofing for on-demand IPX links. Previous releases supported IPX keepalive spoofing only for Novell NetWare clients and servers. ComOS 3.7.2 supports both Novell keepalives and Microsoft session keepalives.

Australian ISDN Support

The command "set isdn-switch ts014" is now available on the PortMaster 3 to support the TS014 ISDN PRI switch used in Australia.

Semipermanent connections (SPCs) are supported for switch type ts014 in Australia. To set up a SPC with switch-type ts014, set the port type to network hardwired and set the directory number for the port to the SPC ID, and then reset the port.

A-law Support on PortMaster 3

A-law pulse code modulation is now supported for V.34, V.42bis, and K56flex on the True Digital 56K Card on the PortMaster 3.

V.110 Support on PortMaster 3

V.110 is now supported over ISDN PRI lines on the PortMaster 3 with the True Digital V.34 Card (MDM-PM3-8 and MDM-PM3-10) installed. V.110 is not supported at this time on the True Digital 56K Card (MDM-56K-8 and MDM-56K-10), but you can use both types of cards in the same chassis. In this case, V.110 calls will be routed to the True Digital V.34 Cards for handling. When mixing cards for this purpose, put the True Digital 56K Cards in the low-numbered slots (starting at 0 and counting up) and the True Digital V.34 Cards in the high-numbered slots (starting at 5 and counting down). Slots are numbered from left to right and top to bottom. Slot 0 is the top left modem slot.

ATE1 Command Added on PortMaster 3

In previous releases, when you attached to a dial-out port and issued a dial command with ATDT, the port would print "Dialing..." to indicate it was dialing. This caused problems for network com-port redirectors on Windows 95. In ComOS 3.7.2, by default dial-out ports do not printout anything when dialing. You can turn on the "Dialing..." message by entering the "ATE1" command before the "ATDT" command. "ATE0" turns off the message and is now the default.

Bugs Fixed in ComOS 3.7.2 (All Products)

The following bugs have been fixed on all PortMaster products in ComOS 3.7.2:

Proxy ARP Supernetting Supported

Proxy ARP is now supported for classless routing, as well as on classed boundaries. This feature allows supernetting and is compatible with variable-length subnet masks (VLSM). Previous ComOS releases supported Proxy ARP on classed boundaries only.

Frame Relay Subinterfaces Now Start Quickly

All Frame Relay subinterfaces are now available as soon as their primary Frame Relay interface becomes active. In previous releases, routing packets were sometimes received on the wrong interface because Frame Relay subinterfaces took as long as 15 seconds to become active.

Multilink PPP Simultaneous Links Now Establish Correctly

Multilink PPP (MP) sessions now successfully establish multiple links that arrive simultaneously, in all cases.

Bugs Fixed in ComOS 3.7.2 (PortMaster 3)

The following bugs have been fixed on the PortMaster 3 in ComOS 3.7.2:

PortMaster 3 Modem Card Software Improvements

The "show modem" command no longer displays nonexistent modems in the ADMIN state when 8-modem cards are used. The nonexistent modems may show up in the first two minutes after reboot, but will not be displayed in normal operation after that.

In ComOS 3.7.1 some modems on the True Digital 56K Card would sometimes enter the ADMIN state incorrectly. In some cases the "set M0 on" command would return the modem to the READY state, but in other cases the PortMaster required a reboot to return the modem to the READY state.

In ComOS 3.7.2 the three reasons a modem might enter this error state have all been fixed. A bug in ComOS 3.7.1 causing modem disconnections following retraining (rate renegotiation) is fixed in ComOS 3.7.2.

The modems on the True Digital 56K Card have been improved to provide higher connection rates and more stable operation.

Modem Disconnections Fixed

In ComOS 3.7, certain modems (particularly the USR Sportster) dialing in to a PortMaster 3 with True Digital 56K Cards would hang up 5 to 10 minutes into an active session. The typical disconnection code reported for this behavior by the "show modem" command was "Exceeded LAPM retry limit." This problem has been fixed in ComOS 3.7.2.

Random No Modem Tones Fixed

In ComOS 3.7, certain modems dialing into a PortMaster 3 with "True Digital 56K Cards" would intermittently receive no modem tones. This is fixed in ComOS 3.7.1.

Call Type Detection Timer Extended

The time during which ComOS on the PortMaster 3 detects whether a call is from a modem or ISDN has been extended from 10 seconds to 90 seconds to support certain ISDN devices that do not identify themselves within the first 10 seconds. In previous releases, ComOS timed out after 10 seconds.

PortMaster 3 two E1 Multichassis PPP crash

ComOS 3.7.2 fixes a bug that caused use of Multichassis PPP (MCPPP) to sometimes crash the PortMaster 3 with two E1 lines (PM-3A-E2 and PM-3D-E2).

Note - Multichassis PPP is only available on the PortMaster 3.

Multichassis PPP Idle Timer and Virtual Ports Fixed

Idle timers for Multichassis PPP now behave properly and no longer time out slave ports that have traffic. In addition, virtual ports no longer randomly show users who have logged out as still being logged in.

RADIUS Accounting for Multichassis PPP

RADIUS accounting records are now properly generated on Multichassis PPP (MCPMP) sessions.

RADIUS Connect-Info Now Reported

The Connect-Info attribute is now included in RADIUS access-request and accounting-request messages even when the modems do not negotiate an error protocol. Connection speeds formerly reported as "50K" are now properly reported as "50000".

Upgrade Instructions

WARNING! YOU MUST USE PMINSTALL VERSION 3.5.3 OR LATER TO PERFORM THIS UPGRADE!

If you are upgrading using PMconsole for Windows, you must use PMconsole for Windows version 3.5.1.4 or later. If you are upgrading from ComOS 2.3 or 2.4 to ComOS 3.7.2, you must first upgrade to ComOS 3.0.4, reboot, and then upgrade to ComOS 3.7.2.

Note – If the upgrade fails, do NOT reboot! Contact Livingston Technical Support without rebooting.

The upgrade process on the PortMaster 3 erases the configuration area from nonvolatile memory and saves the current configuration into the nonvolatile memory. Never interrupt the upgrade process, or loss of configuration information can result.

The upgrade does not otherwise affect your stored configuration in the PortMaster. If you want to back up your PortMaster configuration before upgrading, choose the Backup PortMaster button in PMconsole for Windows, or run pmreadconf on UNIX. The pmreadconf utility takes three arguments: the hostname or IP address of the PortMaster, the administrative password for the PortMaster, and the filename to place the configuration in. If you ever need to reload the configuration, move the backup file into the /usr/portmaster/data directory and run pminstall to reload it. Here is an example:

```
cd /usr/portmaster
pmreadconf Pmname Pmpassword data/Pmname.conf
chmod 600 data/Pmname.conf
```

You can retrieve the installation software using FTP from `ftp://ftp.livingston.com/pub/le/software/System/Tarfile.tar.Z` by replacing System and Tarfile.tar.Z with the names of the files. You can retrieve the upgrade image at the same time. The following example shows an administrator retrieving the SunOS pminstall and PortMaster 3 upgrade image:

```
umask 22
mkdir /usr/portmaster
cd /usr/portmaster
ftp ftp.livingston.com
(Enter anonymous)
```

(Enter your email address; it will not echo.)

```
binary
cd /pub/le/software/sun4
get pm_3.5.3_sun4.tar.Z pm.tar.Z
cd /pub/le/upgrades
get pm3_3.7.2
quit
uncompress pm.tar.Z
tar xvf pm.tar
rm pm.tar
mv pm3_3.7.2 data
pminstall
```

PMconsole 3.5.1.4 for Windows 95 and Windows NT 4.0 is available on <ftp://ftp.livingston.com/pub/le/software/pc/pmw3514.exe> in a self-extracting file. Transfer that file via FTP, run the file to install PMconsole for Windows, move the upgrade file into the data directory, run PMconsole for Windows, and click on the Upgrade icon.

PMconsole for the following operating systems can be found under <ftp://ftp.livingston.com/pub/le/software/>

bsdi/pm_3.5.3_BSDOS_2.0.tar.Z	BSD/OS 2.0 and 2.1
sgi/pm_3.5.3_IRIX_5.2.tar.Z	SGI Irix 5.2
linux/pm_3.5.3_Linux.tar.Z	Linux 1.2.13 ELF
rs6000/pm_3.5.3_RS6000_4.1.tar.Z	RS6000 AIX 4.1
alpha/pm_3.5.3_alpha_T3.0.tar.Z	Digital Alpha OSF/1 T3.0
hp/pm_3.5.3_hp9000_10.01.tar.Z	HP 9000 HP/UX 10.0
sun4/pm_3.5.3_sun4.tar.Z	SunOS 4.1.4, 5.5.1 on Sparc
sun86/pm_3.5.3_sun86_5.5.tar.Z	Solaris x86 2.5.1
pc/pmw3514.exe	Windows 95 and Windows NT 4.0

The following upgrade images are available at <ftp://ftp.livingston.com/pub/le/upgrades/>

ComOS	Upgrade Image	Product
3.7.2	pm2_3.7.2	PortMaster 2, 2E, 2ER, 2R, 2i, 2E-10i
3.7.2	pm25_3.7.2	PortMaster 25
3.7.2	pm3_3.7.2	PortMaster 3

ComOS	Upgrade Image	Product
3.7.2R	irx_3.7.2R	IRX-111, 112, 114, 211
3.7.2L	or_3.7.2L	OR-M, U, ST, LS and HS

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Contacting Livingston Technical Support

The PortMaster comes with a 1-year hardware warranty.

For all technical support requests, record your Livingston ComOS version number and report it to the technical support staff.

New releases and upgrades of Livingston software are available by anonymous FTP from **<ftp://ftp.livingston.com.pub/le/>**.

You can schedule 1-hour software installation appointments in advance by calling the technical support telephone number listed below.

For Europe, Middle East, and Africa (EMEA)

Contact the Livingston EMEA Support Center Monday through Friday between the hours of 8 a.m. and 8 p.m. (GMT+1), excluding French public holidays.

- By voice, dial +33-4-92-92-48-88.
- By fax, dial +33-4-92-92-48-40.
- By electronic mail (email) send mail to **emeasupport@livingston-ent.fr**

For North America, Latin America, and the Asia Pacific Region

Contact Livingston Enterprises, Inc., Monday through Friday between the hours of 6 a.m. and 5 p.m. (GMT -8).

- By voice, dial 800-458-9966 within the United States (including Alaska and Hawaii), Canada, and the Caribbean, or +1-510-737-2100 from elsewhere.
- By fax, dial +1-510-737-2110.
- By email, send mail to **support@livingston.com**.
- Using the World Wide Web, see **<http://www.livingston.com/>**.