

Black Box- LES2800A FAMILY RELEASES

This document brings all new features and bug fixes regarding LES2800A-1/LES2800A-4/LES2800A-8/LES2800A-16/LES2800A-32/LES2800A-48 versions (Including BETA versions which have a letter after the version number).

V_1.4.0-4 Mar/11/05 : (official release only for LES2800A-1; upgrade from V_1.4.0-3)

a) Bug fixes

- Ymodem file transfer was not working for LES2800A-1 when media RS485_half (3087).
 - LES2800A-1 does NOT save to flash two BILLING config files by default (3056).
 - Console at speed other than 9600bps "stops to work" after resetting to factory defaults (1485).
-

V_1.4.0-3 Dec/16/04 : (official release; upgrade from V_1.4.0-2)

a) Bug fixes

- ts_menu accepted only the first number of the option and accessed the wrong serial port. (this problem existed only in 1.4.0 version)
 - CAS session, LES2800A did not send the RFC2217 notify modem state.
-

V_1.4.0-2 Dec/13/04 : (official release; upgrade from V_1.4.0-1)

a) Bug fixes

- ssh client using the option -T (disable pseudo-tty allocation) and accessing the serial port, will have the session closed by LES2800A.
-

V_1.4.0-1 Dec/08/04 : (official release; upgrade from V_1.4.0)

a) Bug fixes

- segmentation fault in the pmCommand utility when the sXX.pmusers has 32 characters or more
-

V_1.4.0 Oct/26/04 : (official release; upgrade from V_1.3.12)

a) New features

- Upgrade of OpenSSH to 3.8.1p1
- Billing Wizard
- Hardware flow control in Half Duplex media
- Enhancement for the integration with IPDU - PM
 - allow user to access the pmCommand utility by ssh or telnet session to the serial port when the PM is connected.
 - allow regular user to access the PM utilities (pm and pmCommand).
 - the user that is a member of "admin" group is one admin user to pm and pmCommand utilities.
 - new syslog messages
 - the number of Outlets of PM is detected, so the configuration of this parameter was removed.

b) Bug fixes

- User could not access LES2800A with authentication method as none through ssh/telnet

c) Change Log

- The pmusers group has removed. The file /etc/rc.sysinit was changed .If there is one saved in flash it must be replaced/merged with /etc/rc.sysinit.save. The file /etc/group was changed. If the file was not changed just replace it with the file /etc/group.save.
- This version does not have support to Sentry's IPDU nor RPC's IPDU. The files /etc/pm.sentry and /etc/pm.rpc22 were deleted. The file /etc/pmd.sh was changed. If there is one saved in flash it must be edit : old line - ConfigFiles="/etc/pm.cyclades /etc/pm.rpc22 /etc/pm.sentry" and the new line - ConfigFiles="/etc/pm.cyclades".

V_1.3.12-1 Aug/27/04 : (official release; upgrade from V_1.3.12)

a) Bug fixes

- Memory leak in the WebUI
- TCP socket error not properly handled by WebUI

V_1.3.12 May/28/04 : (official release; upgrade from V_1.3.11)

a) New features

- Upgrade of web server go-ahead to 2.1.8

b) Bug fixes

- User could not access LES2800A with empty password through ssh/telnet
- When using ssh and idletimeout, session is closed by idletimeout even if user is using it.

descriptors is exceeded, which allows local users to gain root privileges,
a different vulnerability than CAN-2003-0985.

Ptrace/exec race

Ptrace and exec as well as ptrace/suid races existed that could give a local user privileges.

Socketfilter

Boundary cases in socketfilter could be abused. It is not clear if these are actually exploitable

strlen_user

Several problems with the implementation have been cured.

SYS5 shared memory

A code path existed where the shm code would scribble on very recently freed memory. It is not clear that this was actually exploitable.

sysctl

Mishandling of sign bits in sysctl allowed local users to scribble on kernel memory.

Tighten packet length checks

The masquerading code checks were a little lax in some cases. None of these are believed actually exploitable however.

UDP Deadlock

A local user could deadlock the kernel due to bugs in UDP port allocation.

Multiple Sign/overflow

Multiple numbers of potential sign handling, maths overflow and casting errors were fixed. Some of them are theoretically locally exploitable.

CAN-2003-0244: Hashing exploits in network stack

CAN-2003-0461: The virtual file /proc/tty/driver/serial in Linux reveals

the exact number of characters used in serial links, which could allow local

users to obtain potentially sensitive information such as the length of passwords.

- openssh will look in the home directory by default if public key is used
- Power Management: regular users that are members of "pmusers" group can manage only outlets that they have permission to manage (defined in sXX.pmusers parameter in Port Slave configuration)
- Added some files to support to LES2800A-1

V_1.3.10 Feb/09/04 : (official release; upgrade from V_1.3.9)

a) New features

- Data Buffer logging (connection/disconnection timestamp)
- PM field upgrade (no chain) support
- SNMP Proxy to access the PM
- Billing allowed in all ports and platforms
- Sniff session notification
- Upgrade of OpenSSH (from 3.6.1p1 to 3.7.1p2)

b) Bug fixes

- web page configuration for banner did not accept as many characters as all.issue parameter
- /var directory had permission 777

c) Change Log

- The file /etc/TIMEZONE was changed. If there is one saved in flash it must be replaced/merged with /etc/TIMEZONE.save
- The sshd program was upgraded to version 3.7.1p2 and it needs a new configuration file. If the file /etc/ssh/sshd_config was not changed just replace it with the file /etc/ssh/sshd_config.save. Otherwise the user should merge these files.

This OpenSSH version uses these following authentication methods when the parameter UsePAM is configured as "yes" :

- TIS or CryptoCard authentication in SSH-1
- "keyboard-interactive" authentication in SSH-2.

Please, pay attention in ssh client configuration to accept these authentication methods.

- The file /etc/rc.sysinit was changed.If there is one saved in flash it must be replaced/merged with /etc/rc.sysinit.save.
- The file /etc/group was changed. It was included the group "pam" and "pmusers".If the file was not changed just replace it with the file /etc/group.save. Otherwise the user need to do the following commands :

```
#addgroup pam <enter>
#addgroup pmusers <enter>
#chgrp pmusers /bin/pm <enter>
```

V_1.3.9 Oct/15/03 : (official release; upgrade from V_1.3.8.1)

a) New features

- None

b) Bug fixes

- rfc2217 commands were not being properly handled by socket when no data buffering or sniffing was enabled
- CrossTalk in bad console cables would halt a normal boot

- Command "updatefiles" was failing when the files under /tmp/upd/<pathname> had subdirectories
- When user logged into the LES2800A using SecureCRT, telnet, or SSH and disconnected after the login prompt they would get the following error
pam_authenticate : Error in service module
- Removed message due to /etc/motd
- crontab -e was not working
- "Password" in the pm utility was not working correctly
- Alias command removed from pm utility
- ts_menu with different Escape char was not working
- ports do not release when connecting to LDAP server
- The serial speed for ports configured as PPP was not set properly

c) Change Log

- /etc/motd removed from LES2800A
- "Existent feature (syslog) -> the configuration file (/etc/syslog-ng.conf) was changed. The f_kernel and f_alerts in /etc/syslog-ng/syslog-ng.conf were changed."
- Comments for parameter all.sttyCmd in /etc/portslave/pslave.conf might let user think that it was valid only for TS profile because of the expression "terminal port", and it was not true. Changed the comments.
- /etc/pm.cyclades had the PM prompt changed from "pm8>" to "pm>". If that file was NOT included in /etc/config_files by the user in an earlier FW version, the LES2800A FW upgrade will force the user to either upgrade the PM boxes to the newest FW or to edit the /etc/pm.cyclades file in the LES2800A, change the prompt back to "pm8>", to include that file in /etc/config_files, to restart pmd process and to run saveconf to have the LES2800A communicating with the PM again.

PM versions before 1.0.9 have the "prompt pm8>"

PM versions after that have prompt "pm>"

/etc/pm.cyclades defines the prompt as "pm8>" for all TS versions before V_1.3.7. It defines as "pm>" for V_1.3.8 and later

V_1.3.8.1 Sep/18/03 : (official release; upgrade from V_1.3.8)

a) New features

- None

b) Bug fixes

- Applied latest patches until openssh 3.7.1

c) Change Log

- The patch is a fix to buffer.c in openssh. The patch updates 3.6.1p1 to the current code level (3.7.1).

V_1.3.8 Aug/11/03 : (official release; upgrade from V_1.3.7)

a) New features

- SSL V2 reenabled in the FW (it was disabled in previous FW version) and made configurable. This way, IE can work with SSL3 or SSL2 whereas the existent buggy Netscape and Mozilla can work with SSL2.
- The upgrade process from V_1.3.6 or older to V_1.3.7 required the user to read the upgrade notes and to be present in the console to proceed with the upgrade process (copying configuration files from old sector to new sector in flash). Now this process is automatic. FW versions 1.3.6 or older that get V_1.3.8 don't require users in the console to copy configuration files from the old sector to the new sector.
- Hardened the code through disabling services daytime and time and rejecting timestamp

b) Bug fixes

- saveconf was very slow to save configuration files in flash and was generating R/W temp files before saving them into flash
- RFC2217 not working when user did not configure data buffering or sniffing for a given serial port
- WEB would cap in 40 characters the users field before copying the field to the proper configuration file (pslave.conf). Now the limit is 256 characters.
- CrossTalk in bad console cables made the unit not boot if the console cable did not have console hooked up
- Billing SW: It was accepted any combination of <CR> and <LF> as the end of record. The problem occurred when the application got from TTY these two characters in two different reads...
- Socket CAS was handling telnet command NOP as data
- pam was generating a deceiving error saying "unable to set group membership for user (err=-1)". It was a incompatibility between sshd (set_creds) and pam_groups (set_creds). The pam_groups issue a system call that requires root privilege but sshd already change the privilege to the user just logged in. Removed the module pam_groups from the sshd service (pam.conf).

c) Change Log

- SSL2 enabled or disabled through configuration file (/etc/ssl_version.conf). The user will choose between SSLv2, SSLv3, and SSLv23 (default).

V_1.3.7 Jun/30/03 : (official release; upgrade from V_1.3.6)

a) New features

- Upgrade of OpenSSH (from 3.5.p1 to 3.6.1p1)
- Upgrade of Openssl to 0.9.7b
- Allows Radius Server to specify the serial ports the user can access

- tctest with chat string support
- Dynamic serial port allocation (hunting group; pool of serial ports) support
- Flash relay layout allowing more room for upgrade
- Support to LDAPDownLocal authentication
- SSH-2 break extension support
- performance improvement (transfer rate over serial ports). This feature affects the meaning of the parameters all.DTR_reset, all.auto_answer_output, and all.auto_answer_input
- support to change and control (FW and Configuration) to work with new LES2800A product

b) Bug fixes

- Radius and callback was not working properly (no call back)
- "W" command showing a wrong pid for ports LES2800A profile
- Radius was sending a wrong NAS-Port-Id to Radius Server
- Changed DHCP client to keep trying to get an IP address forever if configured as "1"
- If a user belongs to more than one group he can not access LES2800A serial port properly

c) Change Log

- Hunting group: added some new parameters in /etc/portslave/pslave.conf (all.pool_ipno, all.pool_serverfarm, all.pool_socket_port)
- Flash relay layout: The customer must execute a shell script (restore_from_old_script) as soon he boots the new version. This is mentioned in the upgrade notes.
- added /webs/web/appl/close.gif, /webs/web/appl/refresh.gif, /webs/web/appl/colorSet.conf
- java applet now pops up when you connect. There is a refresh and close icon that users can click on. The refresh button is used to reconnect to the server. The close icon is used to close the window of the popup.
- LdapDownLocal:
 - . change in /etc/portslave/pslave.conf
 - . changed WEB interface to support new value to authentication type parameter
 - . changed snmpd to support new value to authentication type parameter
 - . change din /etc/pam.conf (added new service ldapdownlocal)
- SSH-2 break extension: (support to "Session Channel Break Extension - draft-ietf-secsh-break-00.txt")
 - . implemented client and server.
 - . break interval -> change in /etc/portslave/pslave.conf (added parameter all.break_interval)
- performance improvement
 - . change in /etc/portslave/pslave.conf (included new value to all.sniff_mode)
- support to change and control (FW and Configuration)
 - . saveconf and restoreconf -> have more options
 - . adduser -> allow to add user with root privileges
- existent feature (DHCP client) -> the following files were changed : /bin/handle_dhcp (now this script shell does the ifconfig commands to set the IP address to eth0) and /etc/network/dhcpd_cmd.

- existent feaute (default route) -> the /etc/network/st_routes was changed. The option "metric 3" was inserted in the definition of the default route.
-

V_1.3.6 Mar/21/03 : (official release; upgrade from V_1.3.5)

a) New features

- Power Management. Allows users connect IPDUs (Inteligent Power Distribution Unit) from some other vendors (Baytech and Sentry) to Black Box Console Servers and manage the outlets used to power the Servers.
- Upgrade of OpenSSL (from 0.9.6g to 0.9.7)
- Upgrade of ucd-snmp (from 4.2.4.pre1 to 4.2.6)
- Upgrade of Busybox to 0.60.5. (include support to "top" command).
- Upgrade of DHCP to 1.3.22
- IP buffering for Billing applications (LES2800A-1 only)

b) Bug fixes

- LES2800A-1: Modbus daemon failed to start (modbus log was showing "serial buffer size incompatible")
- Telnet/SSH connections with Data Buffering are locked after NFS server goes down
- Protocol socket_server ignores the [more] data buffer menu command over telnet
- Wizard for DB is setting the parameter *.data_buffering wrongly when the value has more than 5 digits
- PPP connection from a Windows 2000 would not be established unless cb_script line was commented out in pslave.conf

c) Change Log

- New feature (Power Management):

New directory/files:

- pmd/
- pmd/*
- cyclades/etc/init.d/pmd

Files changed:

- cyclades/etc/inittab

New parameters were added in webs configuration, serial ports section : Protocol (the ipdu protocol was included), IPDU type, PM users, PM number of outlets, PM outlets and PM hotkey.

- The same parameters above were added in the Black Box MIBs.
- The process pmd was included in the webs administration to restart processes.
- The Link Administration > Power Management was created to manage the IPDU's outlets.

- The following commands were removed: **radinit**, **last**, **ssh-keygen** and **sftp**. The reason was that the code grew big and the zImage was not fitting anymore in flash.

- New Feature (IP buffering)
variables `billing_records` and `billing_timeout` added in `/etc/portslave/pslave.conf`.
Comments: RAMDISK inodes from 1024 to 1152 (128 more).
- Existent feature (Dial-in authentication by CHAP protocol) -> created the directory `/etc/ppp` and the files `chap-secret` and `options.ttyXX`.
- A new command line option was added to the `tstest` program: the `"-I <initchat>"`.

So, the command to do port conversation without navigating in the menu should be:
`tstest -l <#port> -s <baudrate> -I <initchat_string>`

The command `"tstest -?"` will display all options available:

```
-l #port    - Serial port number [1 to 32]
-s speed    - Baud rate
-p parity   - Parity even, odd, none
-f flow     - Flow control hard, soft, none
-d DataLength - Number of bits from 5 to 8
-b         - Send break 0.25 to 0.5 seconds long
-B interval - Send break [1-5] seconds long
-T interval - Toggle DTR [1-5] seconds long
-t         - Toggle DTR forever
-R interval - Toggle RTS [1-5] seconds long
-r         - Toggle RTS forever
-i         - Port conversation
-I <initchat> - Port conversation
-c         - doesn't change tty configuration/signals on open
-C         - doesn't restore tty configuration/signals on close
```

- Java applet has changed. Now to ssh to the port chosen, users can just type the username and his/her password rather than typing `username:portnumber` and then his/her password
- Existent feature (Dial-In profile) -> change in `/etc/portslave/pslave.conf` (removed the callback from the default of the `pppoptions` parameter).
- Existent feature (CHAP authentication in Dial-In profile) -> add two files `/etc/ppp/chap-secrets` and `/etc/ppp/options.ttyXX`.
- Existent feature (busybox) -> upgrade version 0.60.2 to version 0.60.5 (included support to the `"top"` command and the `"ps"` shows new columns). The `/etc/inittab` file was changed because the order to start the process was changed in the new busybox.
- Existent feature (`/bin/build_DB_ramdisk`) -> change to not show the messages from `/etc/mke2fs` and `/etc/mount`.
- Existent feature (MIB) -> change to support new PortSlave parameters and fixed some problems with object definitions.
- Included Note about CHAP authentication (Chapter 3, section Authentication)

V_1.3.5 Jan/10/03 : (official release; upgrade from V_1.3.4)

a) New features

- Upgrade of the WEB server (goahead v2.1.4)
- The WEB logic for access limit has changed. There will be 4 priority levels: user, monitor, administrator and full (root). Each page will have a priority level associated with it; if the page has monitor priority, all the users with privilege monitor, administrator or full will have access to the page. The default user groups will be root (full), admin (administrator), monitor (monitor) and user (user). Also, the link list will be grouped according to the user privilege. The common user, for now, will be able to logout and to connect to serial ports, nothing more. In order to make it effective, it's necessary to change the file /etc/websum.conf with the one in the new zImage.
- Run Configuration implemented in WEB. A link was created in the Administration section and, in the page, the administrator can reload the portslave, the snmp and the syslog-ng configuration. The signal_ras script was changed to fit this feature.
- Added a link called SNMP in the Configuration section. This configuration is done in the same way as syslog-ng; by editing the file.
- Changed the syslog-ng.conf file. The new configuration allows syslog-ng to receive syslog messages from the Kernel.
- Implemented a new PortSlave parameter "all.telnet_client_mode". This parameters allows the user to choose text or binary mode for automatic telnet client.
- Implemented a new PortSlave parameter "all.lf_suppress" to allow some Windows telnet client to access Unix servers and not receive double prompt.
- Implemented two new PortSlave parameters "all.auto_answer_input" and "all.auto_answer_output" to allow PowerEdge Servers to display BIOS' output when there's no connection (ssh or telnet) to that serial port (given data buffering is active).
- Enhanced sniffer feature by allowing presenting or not the sniffer menu

b) Bug fixes

- A problem in syslog data buffering was fixed. That would appear when the parameter data_buffering is not enabled and the parameter timestamp is enabled.
- When changing serial port configuration parameter like "sttyCmd" and issuing the "signal_ras hup" command the serial port parameter is not being reconfigured.
- If slave entries for all 48 ports of a LES2800A-48 are added to the pslave.conf file in the master the following message appears when the slave is selected on the ts_menu first screen.

"Caution: You have exceeded the number of slaves allowed. You may be invading your system's memory therefore affecting the performance of this application..."

- When doing ftp to upload /proc/flash/script file the 'put' command does not work. Even changing the rights to the script file (chmod 777) had no success.
- LES2800A - SNMP
Fixed problem with to save configuration and to restart PortSlave by SNMP set.
- New Logo replacing the old one

c) Change Log

- new feature (Access Limit by priority) -> change in /etc/websum.conf (reconfigured user groups and access limits according to the priority and added some more access list entries)
- new feature (Common Users access only application pages) -> files web/read/{*.jar, *.conf, sportConnect.asp, connectPorts.asp} moved to web/appl.
- new feature (complete Run Configuration) -> Link "Run Configuration" inserted in the Administration section, in the Web Server Menu
- new feature (SNMP configuration) -> Link "SNMP" inserted in the Configuration section, in the Web Server Menu
- new feature (Define the text/binary mode in automatic telnet client) -> change in /etc/portslave/pslave.conf (added the parameter all.telnet_client_mode)
- new feature (LF suppression) -> change in /etc/portslave/pslave.conf (allows suppressing the last LF from the CRLF sent by a Windows telnet client to avoid having double prompt on screen when user accesses a Unix server through the CAS' serial port)
- new feature (Probing mechanism) -> change in /etc/portslave/pslave.conf (if a server probes the serial port by sending a string the CAS answer with other string so BIOS can start displaying. Input and output strings are configurable)
- existent feature (session sniffing) -> change in /etc/portslave/pslave.conf (all.multiple_sessions can be configured to present or not the sniffer menu)
- existent feature (syslog-ng receives syslog message from kernel) -> change the syslog-ng.conf file (see the upgrade notes), change in upgrade_110 file
- the command "w" is changed. The original version was renamed to "w_ori". "w_cas" is a new command and it shows the information about CAS sessions. The command "w" calls w_ori and w_cas.
- LES2800A MIB for SNMP management
Included new PortSlave Parameters in the LES2800A MIB.
- The configuration of the snmpd (/etc/snmp/snmpd.conf file) was changed. The upgrade has to be done in two steps:
 - . First step.
 - .. Save the file /etc/snmp/snmpd.conf, if it was changed.
 - .. Edit the file /etc/config_files and remove the line related to snmp.
 - .. Execute the command "saveconf" and reboot the LES2800A.
- . Second step.
- .. if the file /etc/snmp/snmpd.conf was changed the user should make his own changes again.

V_1.3.4 Nov/01/02 : (official release; replaces V_1.3.3 for LES2800A-1/-4/-8 HW with 32M RAM and LES2800A-16/-32/-48 that supports at least 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port. Version 1.3.4 and later will only run on LES2800A-1/-4/-8 with 32M RAM and LES2800A-16/-32/-48 with 32M/64M/128M RAM respectively.

a) New features

- upgrade the OpenSSL version - new 0.9.6g
- LDAP support (Tacacs+, Radius and local authentication)
- Extended configuration through wizard

- Local linear data buffering

b) Bug fixes

- Files in flash can be protected by just setting the right permission
 - Some bugs detected using WEB
 - With local authentication turned on, reverse telnet to port, get double echo. Menu is garbaged.
 - Reboot unit through WebUI causes unnecessary Web Server info to be spit out.
 - If no password is specified in Add System User page, then the functionality gets all messed up.
 - No Header/Title displayed on "Add System Group" page.
LEDs are all on even without connection and data buffering.
 - w command presented wrong "from" information when connecting to a serial port (telnet/ssh)
 - set date/time through WEB was not working on months with 31 days
 - It was not possible to make more than 16 simultaneous ssh sessions to serial ports
 - IdleTimeout ignored input data from the serial port to reset the counter
 - Konqueror 3.0.0 crashes web interface
 - If one try to sniff and then assume a socket_server session, the sniffed session always die (this is correct), but the sniffing session doesn't assume the session.
-

V_1.3.3 Aug/15/02 : (official release; replaces V_1.3.2 for HW that supports 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port.

a) New features

- upgrade the OpenSSH version - new 3.4p1
- PAM support (Tacacs+, Radius and local authentication)
- Alarm generation (use of syslog-ng 1.5.17)
- Time stamp in data buffering configurable
- Multiple sniffing configurable per port
- Basic configuration through wizard
- Custom programming of stty
- ModBus support (LES2800A-1)
- Multiple syslog servers support
- Socket client capable of working with raw data (configurable)
- Data buffering continues even when the connection with the serial port is established

b) Bug fixes

- Serial port configured as socket_ssh and with no authentication was not working
- Dial-in presented problems when authentication was set to local
- When some SUN servers would reboot the LES2800A would also reboot (if watchdog timer was active) due to noise in the DTR line coming from the SUN server. No problem found if the WDT was inactive.

- WEB in the LES2800A had problems when configuring ipchains
- Time zone was not OK for some daemons (syslog, cron, and so forth)

c) Programs removed from Ramdisk due lack of memory (LES2800A-1, LES2800A-4, and LES2800A-8 only).

arp, crontab, ex_keygen, fwset, ipchains, ipchains-restore, ipchains-save, last, mke2fs, netstat, nohup, pftp, sftp, sftp-server, snmpd, snmptrap, sysctl, tftpd, and wall

d) The ts_menu application now can also handle slave ports (clustering) but the remote tcp port number in the slave ports must be always configured (s<nn>.tty slave_ip:tcp_port_number). Before the tcp port number parameter was optional.

V_1.3.2 May/06/02 : (official release; replaces V_1.3.1 for HW that supports 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port.

a) New features

- upgrade the OpenSSH version - new 3.1p1
- upgrade the OpenSSL version - new 0.9.6c
- Zlib Version 1.1.4
- upgrade the SNMP version - new ucd-snmp-4.2.4pre1
- upgrade the Busybox version - new 0.60.2
- included support to binary mode in Telnet Client
- upgrade the PPPD version - new 2.4.1.
- add new parameters in saveconf and restoreconf commands.
- adduser : new parameter "-g <group_name or group_id>" used to set the user's initial login group. The group must exist.
- changed the parameter <comment> : old "-g <comment>" and now "-c <comment>"
- included new parameters in pslave.conf (all.tx_interval, all.idletimeout, all.DontShowDBmenu, conf.group, conf.include, conf.host_config)
- Fast Ethernet ? Maximun events handling per interrupt
WEB UI : new parameters from pslave.conf, DHCP client Information - display the "/etc/dhpc/dhpcd-eth0.info" file
- HTTPS used by default instead of HTTP for security reasons

b) Bug fixes

- Control-C was not working in single mode
- LES2800A-1: wrong initialization in RTS signal was locking the console
- Syslog with wrong timestamp
- If all ports were configured as telnet the LES2800A would reboot if socket_port was invalid
- poll_interval zero was affecting the transmission to the socket client
- Client telnet (CS8 raw mode)
- all.user ignored when protocol is socket_ssh and authentication local
- Sniff session: could no't assume session if there was data traffic

- Reboot with multiple ssh + sniff session + watchdog timer
 - The mv -f differs in functionality from typical Linux OS's
 - Wrong start time for active SSH sessions
 - Ports were locking up in certain conditions
 - SSH-2 was not working properly in certain conditions
 - DTR LEDs would stay ON even without process using the port
 - "cat" command, when the source and destination files is the same, caused a recursive write, now results in an error saying the input file is the output file.
 - WEB UI : file edition bug fixes, crashes when working with Ip Chains, bootconf parameters only valid after reboot,. Authentication type did not read/write properly, change password screen did not alter one to an invalid user, serial ports only shown up to 30 ports (TS2000), change password screen displayed edit boxes for passwords at bottom of screen, add new users - there was not way to assign a user to a different group than the default, and problem with "Load/Save Configuration" when using FTP server.
 - Data buffering method switching from local buffering to NFS files or vice versa would halt buffering
 - Removal of data buffering file would not force the firmware to recreate the data file for further buffering
-

V_1.3.1 Feb/18/02 : (official release; replaces V_1.3.0 for HW that supports 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port.

a) New features

- LES2800A-1 support
- New protocol: raw_mode for transparent transfer between serial device and application

b) Bug fixes

- Sniff session: when there was no user, admin_user configured and authentication was set to none anyone could sniff the session on a given port
- User's access: all.users ignored when all.protocol was set to socket_ssh and all.authtype was set to local
- WMI: file edition inserting ^M at the end of each line, not handling properly % and \
- WMI: Editing a non-existent file causes a crash.
- WMI: The status messages after editing a file were reversed (success was claimed on failure, and vice-versa).
- Serial driver: flow control done by software changed to done by the controller
- Serial driver: character 0xff was filtered out instead of forwarded to the serial device
- WMI: if hostname e hosts are different the web server aborted with no message
- Sniff session and ssh: if the main session closed before the admin could choose one option, when establishing the second session, the sshd would abort.
- User's access: when using RSA/DSA the user field in pslave.conf was not considered

- When booting the LES2800A in single mode, the 10BT was running with less performance
-

V_1.3.0 Oct/15/01 : (official release; replaces V_1.2.0 for HW that supports 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port.

a) New features

- Clustering (Daisy Chain) support
- Session Sniffing support
- WEB management/configuration (beta release)

b) Bug fixes

- None
-

V_1.2.0 Sep/17/01 : (official release; replaces V_1.1.2 for HW that supports 2M RAM per serial port)

NOTE: Versions 1.2.X and on will only run on HW that supports 2M RAM per serial port. Versions 1.1.X will run on HW units that support 1M and 2M RAM per serial port.

a) New features

- IP filtering support
- DHCP support
- Application that provides menu oriented screen for those who do not want to handle command line

b) Bug fixes

- Static route learned from Radius Server was not inserted in the routing table if the interface got the IP address from the Radius Server and it was different from the one configured in pslave.conf
 - Bootconf application with problems with back space and reading an invalid configuration
 - Data buffering stopped working if a port got more than one SSH session at the same time
-

V_1.1.2 Aug/10/01 : (official release; replaces V_1.1.1)

a) New features

- Data buffering allows non cycle network file

- User auto created to allow automatic telnet/login as soon as user is logged into the serial port (Terminal Server profile)
- Disable/Enable presentation of data buffering menu when user connects to the serial port
- Created restriction access per port (e.g. port #1 can allow users X, Y and Z, whereas port #2 allows only user L, and so forth)
- New authentication type created to allow trying access to Radius Server first and, if there's NO answer, tries in the local database. If the Server refuses access, no attempt is made in the local database.
- Root directory changed from / to /root (see upgrade_112 file for details)
- Telnet client using configurable TCP port number

b) Bug fixes

- Attempts to connect from SSH client version 1.2 or later used SSH2 and was not working. Only disabling on the SSH client the SSH2 attempt would allow a connection to the serial port or LES2800A.
-

V_1.1.1 Jul/16/01 : (official release; replaces V_1.1.0)

a) New features

- Data buffering allows network file
- Ethernet mode configurable

b) Bug fixes

- Put lockdir in SSH
 - Ethernet 10BT sometimes presented performance problem in inbound traffic
 - Console autosense capability led sometimes to wrong settings (like 7E1) when hooking up the console cable
-

V_1.1.0 Jun/11/01 : (official release; replaces V_1.0.1)

a) New features

- Data Buffering per port
- Authentication can be done using one source (Radius or local) or two (Radius and then local, or local and then Radius)
- NTP client support
- SSH2 support
- SSH allows use of IP to address directly the physical port
- SSH can send break through configurable strings present in pslave.conf

b) Bug fixes

- Error when configuring the /etc/hosts and /etc/hostname. portslave would not start eth0 if the hosts had the same name.

- Simultaneous SSH sessions on all ports could cause Panic due to lack of RAM.
 - Blanks after a string in pslave.conf caused problems in the interpretation
 - SSH sessions did not allow serial ports with configurations other than 8N1
 - SSH sessions had some problems when with CR/LF conversion
 - Telnet to remote hosts was not passing the correct terminal type
-

V_1.0.1 Mar/13/01 : (official release; replaces V_1.0.0)

a) New features

- None

b) Bug fixes

- SSH to the box was not allowed, just to the physical port
 - Portslave was overwriting ifcfg_eth0 when it was not necessary
-

V_1.0.0 Mar/12/01 : (official release; first release)

a) New features

- TCP/IP RAS, TS and Console Manager profiles in an Embedded Linux
- SSH, telnet, ftp, PPP and SLIP, 10/100BT
- Spurious Break Eliminator

b) Bug fixes

- None
-