silex technology

**SX-570/580
Firmware Release Notes
Version 2.02**

2013.07.08

Classification:
Firmware

Description:
This firmware supports the SX-570 and SX-580 Serial Servers.

Version:
V2.02   2013.07.08

Part Numbers:

Purpose:
Update Release for SX-580/580

Files Released:

Installation Instructions:
See instructions with firmware files.

Limitations:
See separate errata document.

Revision History:

V2.02 (2013.07.08)
1. Fixed problem with bridge mode initialization acquiring a spurious client MAC address, leading to lack of bridge communication [sa-389]

V2.02g (2013.07.03)
1. Updated radio driver to 3.1.1.563 sx1.52
2. Update wpa_supplicant to 0.8.x.sx20
3. Fixed problem with EAP-FAST binary PAC file manual provisioning
4. Fixed problem with board data regulatory domain code being ignored.
5. Update hostapd to 0.8.x.sx11
6. Fixed WEP problem in hostapd.
7. Fixed problem in IP filter where if all filter entries were deleted, which should allow all access, the unit became inaccessible.
8. Updated English language wireless help file.
9. Modified tftpd to support -l option.

V2.02d (2013.06.24)
1. Updated Linux kernel

V2.02c (2013.06.21)
1. Updated radio driver to 3.1.1.563 sx1.50
2. Enabled channels 100-140 in the FCC domain due to new radio certification.
3. Improved roaming performance.
4. Fixed problem with connect event message not being sent in some cases
5. Fixed problem with RSSI handing in AP scans, which could lead to poor roaming performance.

V2.02a (2013.06.11)
1. Fixed problem with data transfer stopping during repeated wireless disconnects [sa-369]
2. Fixed problem with radio firmware crashing during repeated roam/disconnect test [sa-370]

V2.01 (2013.04.08)
1. Fixed conflict between WPS and FLDPD production test application.

V2.00l (2013.03.17)
1. Radio driver updated to 3.1.1.563 V1.45
2. Fixed problem where AP scan could stop when signal level is low and I/O is active.
3. Fixed problem where unit would not reconnect reliably when disconnected from Cisco Autonomous AP1142 [295]
4. Improved roaming performance to bring average open system roam under 100msec [243]
5. Fixed compatibility problem with Aruba AP set for WPA+WPA2 mode. [324]

V2.00k (2013.03.15)
1. Radio driver updated to 3.1.1.563 V1.44
2. wpa_supplicant updated to v0.8.x.sx18
3. Fixed problem with LEAP authentication [362]
4. Fixed problem with disconnect generated during roaming which could cause IP address loss due to DHCP renewal failure..

V2.00i (2013.03.04)
1. Fixed problem with serial port RTS/CTS flow control that caused data transfer to hang. [350]
2. Updated radio driver to fix HT40 receive performance problem.
3. Fixed problem with configuration application crashing in bridge mode. [336]
4. Fixed radio crash when packet received during roaming process. [331]
5. Disabled remote telnet access to Linux shell. [339]
6. Modified so supplicant configuration file not written on every reset to reduce flash wear [342].
7. Modified so EAP-FAST PAC file is saved properly for subsequent authentications [304]
8. Startup script modified to allow regulatory test firmware to be optionally installed and enabled. [353]
9. Added optional fixed speed configuration for the Ethernet port for switches that do not support auto-negotiation. [356]

V2.00d (2013.01.11)
1. Updated radio firmware to V63.27.
2. Added additional radio firmware stack overflow patch borrowed from QCA 3.4.0.60

V2.00c (2012.12.17)
1. Updated radio firmware to V63.26 to
   Add parameter to control delay before scanning added to improve throughput with diversity enabled.
   Fix problem with RTS threshold dropping packets in AP mode.

V2.00b (2012.12.11)
1. Fixed radio crash caused when I/O is active during a roam. The I/O could exhaust the cookie supply, leaving none available for the disconnect/connect of the roam, leading to a driver crash [330]

V2.00a (2012.12.04)
1. Updated radio firmware to V63.25 to fixed radio crash seen during stress testing. [326]

V1.15 (2012.11.19)
1. Fixed radio antenna control initialization
2. Fixed channel list setup when US domain provided in WWR mode x4065.
3. Fixed serial port RTS/CTS operation. [302]
4. Add WPS support.
5. Update radio firmware to V63.23.

V1.14 (2012.08.03)
1. Added client bridge mode support.
2. Added AP mode
3. Addes SXUTP device server
4. Updated radio firmware to V63.12.
5. Added station mode AP scan to console (SH NW WLLIST).
6. Added firmware update via XMODEM on console. (SET LOAD XM)
7. Added console command to bring the wireless interface up or down (SET NW WLIF)

V1.12 (2012.06.29)
1. Initial Release candidate for SX-580.
2. Added SX-580 board data file to final SX-SDMAN production file.
3. Fixed production configuration initialization to properly set the SX-580 for dual band operation.
4. Fixed problem with LPD end of job synchronization which could cause a dangling pointer reference, crashing the application.
5. Fixed problem with LPD not being started properly.

V1.10 (2012.06.08)
1. Release candidate for SX-570.
2. Fixed LPD end of job handling – job could end with TCP connection closed, but I/O port still allocated to the job, hanging the print queue.
3. Fixed application crash caused by previous issue – when the hung job timed out, the application would crash.
4. Updated default ad-hoc channel list to remove channels 14 and 149-165 not supported in all regulatory domains.
5. Updated SX-570 board data with final SX-SDMGN board data
6. Updated SX-580 board data to pre-release SX-SDMAN board data
7. Updated radio firmware to support pre-release SX-SDMAN board data.
8. Updated radio firmware fixes numerous other problems, including failure in recommended power mode with a periodic ping.

V1.09u (2012.05.18)
1. Implemented CLear PAssword console command
2. Fixed firmware download web page – end of download action was incorrect.
3. Patched Ethernet driver to fix packet corruption

V1.09t (2012.05.07)
1. Fixed firmware update download problem in IE and Chrome.
2. Updated configuration console serial port help to match implementation.
3. Fixed console SET IP METH command, any not understood token was treated as AUTO, instead of generating an error.

V1.09r (2012.04.25)
1. Removed Mark and Space parity options in serial port console configuration which could cause application crash [290]
2. Fixed GPIO command parsing problem with bit numbers 10 and greater. Code was treating bit numbers as decimal, not hex.
3. Fixed IP default method, was being set to DHCP by mistake.
4. Fixed problem with supplicant configuration, if only certificate was loaded, wpa_supplicant.conf file was not updated since the configuration application didn't know the certificate had been loaded.
5. Changed web TCP/IP back to select to match console options.
6. Updated web WEP help text
7. Removed web & console TCP/IP disable.
8. Implemented eCable symbolic host (DNS lookup) support
9. Fixed problem with packet loss caused by radio setting power save bit and not clearing it.

V1.09q (2012.04.12)
1. Fixed firmware download via web.
2. Fixed default reset to properly clear the IP access list.
3. Modified TCP/IP protocol enables to be consistent.
4. Web help text improvement.
5. Improved Ethernet startup
6. Added fix to re-acquire DHCP address after Ethernet disconnect/reconnect.
7. Updated web help text.
8. Fixed WPA-AUTO configuration to support both AES & TKIP WPA encryption.

V1.09p (2012.04.02)
1. Updated web help to match current pages.
2. Fixed problem with ad-hoc channel select option – channel 1 was not displayed.
3. Added range check on IP address entry.
4. Fixed problem with web wireless security setting, 802.1x mode could be set when not intended.

V1.09n (2012.03.28)
1. Included some web fixes missed in V1.09m build.
2. Removed FTP protocol option from web page until such time as FTP is supported on the unit.

V1.09m (2012.03.16)
1. Fixed web console interface, enabled web console link [258]
2. Improved web navigation, so if clicking on a link after a timeout, after the password is re-entered, the originally targeted page is displayed (previously always showed the status page). [247]
3. Fixed problem with console SET GPIO DATA command, data values were not being properly set on the pins.
4. Restructured web server to fix problems with posts delayed after the login timeout.
5. Fixed radio option initialization, some IOCTLs were not formatted properly.
6. Fixed unknown error responses on the service web page [282].
7. Removed 3K bit and 4K bit options for self signed certificate key size, as they take too long to generate.

V1.09k (2012.03.07)
1. Fixed problem with TLS client private key load [269].
2. Fixed problem with FreeRadius certificate & key load [270]
3. Fixed WEP entry for IE and Safari. [281]
4. Fixed GPIO interface problem when bb6k3 app run in daemon mode (the usual mode). [279]
5. Added 600 baud option for S1 port. [264]
6. Fixed 3M baud option for S1 port, was configured, but intialization failed [264].
7. Fixed problem with GPIO config if config file is corrupted, console commands were not being enabled [280].
8. Modified web EAP user password entry to display asterisks if password is configured.

V1.09j (2012.03.06)
1. Fixed web display when reset unit option selected.
2. Static DNS configuration option added. Allows NTP to work when static address used. [254]
3. Fixed UDP interface transmit bug which was swapping the bytes in the destination address, preventing e-cable UDP mode from working [278].
4. Fixed IP keepalive default setting so the periodic gratuitious ARPs are sent to notify routers/APs of the unit's presence [275].
5. Fixed web interface setting of inner authentication method [267].
6. Added active IP configuration value display to TCP/IP web page.
7. Removed client certificate/key options from web page when TTLS selected [266].
8. Fixed 3M baud setting via web page [264]
9. Removed 600 baud option from web page, not in spec, not supported.
10. Fixed IAS CA certificate load problem [265].
11. Fixed strange web display on unit reset.
12. Synchronized web password with console password [256]
13. Implemented WPA-AUTO mode [259]
14. Modified web post failure message to not say internal server error [257].
15. Web server password length increased to a maximum of 16 characters. [246]
16. Added SH SERVER FWVER and SH SERVER MODEL console commands for use with production firmware.
17. Modified boot code to simplify network MAC address assignment.

V1.09f (2012.02.22)
1. Initial test release

** END OF RELEASE NOTES **