



December 12, 2008

Driver version: 1.p59

Firmware version: 8.114.1.p31

- Following is an explanation of each digit in the versioning scheme designed for the firmware:
 - **Major Revision (first number from the left):** Tracks the main FW version.
 - **Minor Revision (second number from the left):** Tracks the chip family, firmware branch, custom projects. etc.
 - **Release Number (third number from the left):** this number tracks the incremental changes in the consequent firmware releases given to QA or customers.
 - **Patch Number (forth number from the left):** Customers may want to receive a firmware build based on a previous release plus specific bug fixes, or patches. It is not unusual for customers to request this when they are close to production. The patch number starts at zero (no patch), and increments as we release subsequent builds with more bug fixes.

Host Platform:

- Laptop PC with Windows Vista Business installed w/ SP1

WPA supplicant used:

- Vista Wireless Connection Manager

Tested HW:

- SOC+RF chipset: W8686 B2
- Dell Desktop, Marvell SD8686 Reference Board

Systems Software Modules:

- SD8686 Driver
 - Binary .sys file
 - Configuration .inf file

Test Tools:

- Ix Chariot
- iperf
- Wildpackets AiroPeek Wireless Sniffer

Software Features:

- 802.11 b/g
- IEEE Power Save in Infrastructure Mode

New Features and Enhancements:

- No new features or enhancements

Bug fixes:

- **WLAN: (since 8.114.1.p29-1.P57)**
 - Link speed display fluctuates with a uPnP enabled AP
 - On association, the link speed is displayed as 412.3G
 - By default, 11d is disabled, we do active scan for channel 1-11 and passive scan for 12-13
 - If 11D is enabled, the following channels are scanned based on the region code:
 - EUROPE passive scan for 1-13
 - FRANCE passive scan for 10-13
 - SPAIN passive scan for 10-11
 - USA passive scan for 1-11
 - JAPAN passive scan for 1-14
 - For a directed scan, we are 11d disabled. We do an Active scan on channel 1-11 and if there are hidden Aps found on channel 12/13, an active scan is sent on these channels as well.

Known issues:

- When WLAN is associated with a Cisco AP in g only/b only modes, the link speed shows as 118Mbps and 75Mbps respectively
- The WLAN disassociates from the AP within a few minutes when the AP uses WPA2-AES Enterprise encryption
- Adhoc network throughput is low
- In power save mode, the device may not wake up properly when changing the local listen interval
- Unbalance TX/RX throughput when traffic is bidirectional.
- When there is a low signal strength, the link speed may stay at 54Mbps.
- When using a mix of TCP and UDP streams, the device is not able to send TCP Tx data
- When there is no traffic running in adhoc mode, the link speed is always shown as 11Mbps

Notes:

- If the Radio is OFF, then LED1 will always be off when the driver comes up
- If the Radio is ON, then LED1 will follow the inf configuration file when the driver comes up
- The change in the radio state through OID_DOT11_NIC_POWER will not stay (ie. If the radio is off through the registry, the RADIO is turned ON through OID, then when we disable enable, it will come back with Radio off only. The radio state will stay only if it is changed through the Advanced->properties only.