



Change List for Driver 7.1.0.69 to 7.2.0.164

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Atheros is continuing Hot Fixes. This will be a list of running changes as we continue to fix defects against Vista 7.2.0.x base code. Atheros will be doing monthly maintenance releases. Please check with the Atheros FAE assigned to the account for next maintenance release schedule. NOTE: 7.1 is NOW obsolete.

Software changes between build 7.1.0.69 and 7.1.0.70(DTM Certified)

1) NDIS: Fix Japan 5Ghz regulatory domain limitation when new EEPROM bits are used. This is listed in the 7.1.0.69 release note.

Software changes between build 7.1.0.70 and 7.1.0.79(DTM Certified)

- 2) NDIS: BSOD when forced to 11b mode only from registry.
- 3) NDIS: Connection state is scan module was out of sync with 802.11 layer therefore causing NMI. Make sure states are in sync.
- 4) NDIS: Fixed SW radio switch via Windows Mobility Center causing hard lock when restart. This is caused by using the wrong function call when restarting. This is system dependent.
- 5) NDIS: Added more custom INF entries.
- 6) NDIS: Added OIDs for diagnostic application interfacing.
- 7) NDIS: Fixed BSOD during reboot. Side effect of fix above(#4)

Software changes between build 7.1.0.79 and 7.1.0.90(DTM Certified)

- 8) NDIS: Fixed adhoc with WEP does not reconnect after S3.
- 9) NDIS: Fixed RF Kill does not work with XB63 only.
- 10) NDIS: More robust fixes for NMI when switching between APs.
- 11) NDIS: Block transmit traffic while in a channel change, otherwise NMI can occur.
- 12) NDIS: Can not connect to APs that has a different country code or sku from what is programmed in HW EEPROM.
- 13) NDIS: Added XB63 support in the INF file.
- 14) NDIS: Fixed possible BSOD since OID table is not NULL terminated.
- 15) NDIS: Fixed sleep mode synchronized with ISR that causes system hard lock.
- 16) NDIS: Added more custom INF entries.
- 17) NDIS: Fixed application OID interface to get SKU number.
- 18) NDIS: Fixed BSOD when any LED/GPIO registry keys are used.

Software changes between build 7.1.0.90 and 7.1.0.116(DTM Certified)

- 19) NDIS: Added channel 14 disable for any sku that supports channel 14.
- 20) NDIS: Added Device IO Control for GUI statistics.
- 21) NDIS: Added more custom INF entries.
- 22) NDIS: Disable WMM from adhoc beacons.
- 23) NDIS: Adhoc creator can not autoconnect after S3 or S4.
- 24) NDIS: Fixed throughput stress testing in adhoc mode.
- 25) NDIS: Fixed continuous stress testing of HW RF KILL causing BSOD.
- 26) NDIS: The scan/roam algorithm should not reuse previous scan results.



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- 27) NDIS: Reuse previous scan results if no matching AP on the scan list.
- 28) NDIS: If background scan is disabled, do allow scanning if there is a beacon miss.
- 29) NDIS: Fixed beacon miss in adhoc connection.
- 30) NDIS: Protect RX descriptor linking with spinlocks against dual/hyperthreaded systems.
- 31) NDIS: LED module needs to know wireless state (ON/OFF) when resuming from hibernate/sleep in order to correctly set LEDs.
- 32) NDIS: Remove all Device Manager Radio on/off since windows mobility supports it.
- 33) NDIS: Fixed ignore11d registry key was not working.
- 34) NDIS: Fixed throughput stress testing in infrastructure mode.

Software changes between build 7.1.0.116 and 7.2.0.93(DTM Certified)

- 35) NDIS: Added 11n HW support.

Software changes between build 7.2.0.93 and 7.2.0.125(DTM Certified)

- 36) NDIS: Added more generic INF entries and updated some registry key name changes.
- 37) NDIS: Added PCI Express MiniCard LED spec. To use, set gpioLedCustom=4 and gpioPinFunc1=1.
- 38) NDIS: Corrected LED blinking patterns.
- 39) NDIS: Not roaming after beacon missed.
- 40) NDIS: Added code for future 802.1p support.
- 41) NDIS: Change default US from FCC1 to FCC3.
- 42) NDIS: Can not connect to hidden ssid.
- 43) NDIS: Fixed Japan 11n SKU can not connect to Japan 11n AP because the HT flags were incorrect.
- 44) NDIS: Enable Channel 14 support for XB63.
- 45) NDIS: Enable 11b support for XB63.
- 46) NDIS: Fixed low throughput in 11a mode if AP supports XR.
- 47) NDIS: Added support to read in Midband support for US and World SKUs.
- 48) NDIS: Fixed signal bar not updated properly after association.
- 49) NDIS: Fixed do not try to wake up the chip if surprised removed.
- 50) NDIS: Regulatory table updated.

Software changes between build 7.2.0.125 and 7.2.0.132(DTM Certified)

- 51) NDIS: Improve LED timing for item #37 above to fall inside spec.
- 52) NDIS: Fixed not showing UNKNOWN Network when AP is hiding its SSID.
- 53) NDIS: Fixed can not connect to APs that violate Wifi spec that requires basic rates to be set.
- 54) NDIS: Added more generic INF entries.
- 55) NDIS: Fixed BSOD in 11n mode while in data transfer. This problem only shows up on slower machines.



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Software changes between build 7.2.0.132 and 7.2.0.150(DTM Certified)

- 56) NDIS: Added more generic INF entries.
- 57) NDIS: Fixed net wlan show interfaces show incorrect phy mode.
- 58) NDIS: Corrected ETSI domain should not default to US.
- 59) NDIS: Do not allow HT rates in WEP/TKIP to follow spec.
- 60) NDIS: Low throughputs with Linksys 11n AP due to aggregation not turned on. This is a Linksys AP bug due to not sending WMM/QOS support which is a spec requirement.
- 61) NDIS: Fixed Power states are not carried across S3/S4.
- 62) NDIS: Added value of 2 setting for halpciepowersaveenable to disable all serdes writes for debugging purposes.
- 63) NDIS: Return serdes to default values during shutdown/S3/S4/driver unload for XB6x.
- 64) NDIS: Fixed swapdefaultled registry key to swap states as well as link and activity LEDs.
- 65) NDIS: Fixed different system cacheline sizes might cause 11n rxbuffer to be 0.
- 66) NDIS: At 0dbm, driver will call out 0.5dbm. This is to remove the possibility that the power control might go below -30dbm.
- 67) NDIS: Make sure 11n aggregation is done on data frames.
- 68) NDIS: Do not use WME_AC_VO if WMM is not supported by AP.
- 69) NDIS: Add custom registry key radioenableinterval to delay radio enable during driver load. Default is disabled.
- 70) NDIS: Added more granular steps for power savings.
Vista GUI: Maximum Power Saving =registry key (sleepimepwrsave) = Default 1000ms
Vista GUI: Medium Power Saving =registry key (sleepimepwrsave) = Default 1000ms
Vista GUI: Low Power Saving =registry key (sleepimeperf) = Default 100ms
Vista GUI: Maximum Performance =Full Power on, no power savings.
Future versions will add another key to separate maximum and medium power save.
- 71) NDIS: Maintain radio state power settings across S3/S4.

Software changes between build 7.2.0.150 and 7.2.0.164(DTM Certified)

- 72) NDIS: Added more generic INF entries.
- 73) NDIS: Fixed adhoc disconnect during long stress testing.
- 74) NDIS: Fixed throughput stress testing in adhoc mode.
- 75) NDIS: Change Signal quality mapping of signal bars to that of WinXP drivers.
- 76) NDIS: Fixed can not connect adhoc with more than 2 clients in WPA-PSK-AES.
- 77) NDIS: Do not clear scan/roaming conditions when scan operation is canceled by an external scan.
- 78) NDIS: Add TX coalescing support for improve throughput for slower cardbus controllers.
- 79) NDIS: Fixed accidentally writing to wrong register from fix #63 above that affects XB61/XB62 only.
- 80) NDIS: Fixed XB63 sometimes come out of restart with internal default Ids.



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81) NDIS: Add Channel and Frequency information to API used by WLANMON for APs that hide its SSID.