

# Release Notes

## for the XI-1500 IEEE802.11b (11Mbps)

### Inter-Building Access Point


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Legend: : New Feature, : Design Change, : Performance Enhancement, : Bugfix



## History of Releases

(Note: unofficial releases are in gray text.)



### **version 2.9.8, firmware only**

-  1. **firmware** Fix a bug that the AP leaks configuration data by a simulated Access Point Utility program without knowing its administrator's password.  
"Thanks to Aleksander Posmyk who discovered this bug".




### **version 2.9.7, firmware only**

-  1. **firmware** New Intersil access point protocol (tertiary firmware, version 1.3.5 for Prism II radio; version 2.0.4 for Prism 2.5 radio) is equipped. The tertiary firmware version 1.4.0, which is equipped in previous firmware releases (3.3.2 and 3.3.3), cannot be connected with Lucent/Agere/ORiNOCO-based wireless adapters.
-  2. **firmware** Fix a bug that the AP disconnects all the wireless clients occasionally if one of its wireless clients has roamed to another AP. This problem was introduced by firmware version 3.3.0.






### **version 2.9.6, firmware only**

-  1. **firmware** Rolls back the Intersil tertiary firmware from version 1.4.0 to version 1.3.5 because the new version has a low throughput problem. This applies to the access point with Prism II radio. (The tertiary firmware v1.4.0 does not introduce such a problem on the access point with Prism 2.5 radio).
-  2. **firmware** Fix a bug which some duplicated MAC addresses were produced when user has deleted an MAC address from Access Control table via web (or telnet).







### **version 2.9.5**

-  1. **firmware** New Intersil access point protocol (tertiary firmware, version 1.4.0 for Prism II radio; version 1.4.0 for Prism 2.5 radio) is equipped, which improves the power-saving compatibility and some reliability problems.
-  2. **firmware** On access point responding to browse command from utility, insert a random delay to avoid a network peak. This helps the utility to operate on the network which more than 50 access points have been installed.
-  3. **firmware** Web-Based Management: Focus the cursor to the password input area






once the login page is opened.


-  4. **firmware** Web-Based Management: Redirect to the login page if the page is timed out (inactivity for more than 15 minutes).
-  5. **firmware** The 'snmp' console command is provided to set up the SNMP configuration of the access point.
-  6. **firmware** Fix a problem (bad format) to generate SNMP cold-start trap.
-  7. **firmware** Fix a problem which 'set antenna' console command does not set the usage of antenna correctly.
-  8. **utility** Fix the problem which utility cannot apply the Access Control configuration if the utility is running wirelessly.

### **version 2.9.4**









-  1. **firmware** Web-Based Management: Display IP address, if any, of each wireless client in the 'Link Status' (station table) page, so does the 'stat' console command.
-  2. **firmware** Web-Based Management: User must login again if the idle time exceeds 15 minutes.
-  3. **firmware** Web-Based Management: Fix the compatibility problem to use with the web browser comes with SANYO SCREO (WTP-500).
-  4. **firmware** The basic rates and supported rates can be altered through console with 'set basic\_rates' and 'set supported\_rates' commands.
-  5. **utility** Fix the problem which utility fails to browse access points if the PC which running the utility has drivers more than 20 network adapters has been installed.
-  6. **utility** Fix the problem which utility hangs up on the PC which has PPTP (or similar non-physical) network adapter been installed.

### **version 2.9.3**

-  1. **firmware** New Intersil access point protocol (tertiary firmware, version 1.2.1 for Prism II radio; version 1.2.1 for Prism 2.5 radio) is equipped, which improves the power-saving compatibility and some reliability problems.
-  2. **firmware** Web-Based Management: Add a 'Link Status' (station table) page under 'Information' folder.
-  3. **firmware** Display signal level in percentage (%).
-  4. **firmware** Fix the problem that the AP hangs up and reboots if user issued 'stat' command in the command console when the AP operates in SAI mode. This problem was introduced by firmware version 2.9.2
-  5. **firmware** Fix the problem that the AP fails to upgrade the firmware (NIC.IMG) of the wireless NIC inside. This problem was introduced by firmware version 2.9.2

-  6. **utility** Fix the problem that the utility gets ‘Disconnection’ error message occasionally.

### **version 2.9.2**

-  1. **firmware** Rolls back the Intersil tertiary firmware from version 1.1.1 to version 0.3.3 because the new version has a problem that the wireless data transmission is poor if there is no radio interference (!). This applies to the access point with Prism II radio.
-  2. **firmware** Fix a problem that a specific version of AP hardware, which uses a different version of Ethernet PHY chip, cannot work properly if the LAN connection is altered to 10Base-T Half Duplex operation without resetting the AP.
-  3. **firmware** Fix a problem that would cause the wireless LAN port of access point to occasionally stop to transmit data (out-of-service).
-  4. **firmware** Fix a path learning problem that would cause the PxP to occasionally loop the broadcast/multicast packets infinitely.
-  5. **firmware** The SNMP agent now reports correct counter values of MIB-II’s ‘interface (if)’ group.
-  6. **firmware** The signal level will also be displayed through command console’s ‘stat’ command if the access point is in station adapter mode (i.e., SAI, SAA, or SAA2).
-  7. **utility** The utility program now works under Windows XP operating system.
-  8. **utility** The utility program now uses fix-sized font regardless of the settings of Windows’ desktop.

### **version 2.9.1**

(not a stable fix so this version is not released)

### **version 2.9.0**

1. **firmware/utility** Supports 128-bit WEP encryption.
2. **firmware/utility** Supports station adapter modes.
3. **firmware** The WEP encryption and decryption now are available with ‘Station Adapter’ and ‘Interbuilding Connection’ modes.
4. **firmware** SNMP agent is provided.
5. **firmware** The port number of HTTP server (Web Management) and Telnet server (Telnet console) can be altered through console with ‘set web\_port’ and ‘set telnet\_port’ commands.
6. **firmware** Fixes the problem of not loading PDA information (frequency domain, factory calibration data, ...etc.) when upgrading the firmware (NIC.IMG) of the wireless NIC inside.

7. **firmware** Fixes the vulnerability problem of P×P mode under the network with a large number (>256) of MAC addresses.
8. **firmware** New Intersil access point protocol (tertiary firmware, version 1.1.1) is equipped, which improves the power-saving compatibility and some reliability problems.
9. **firmware** The selection of antenna usage is provided through a console command 'set antenna'.
10. **firmware** The AP will reset itself if the number of associated stations goes up to 250. The latest Intersil tertiary firmware still has problem to handle maximal associated stations.
11. **firmware** Fixes a problem that the AP will stop responding management requests (e.g., utility, ping, telnet, or web) if a duplicated MAC address of the AP is encountered.
12. **firmware** The LINK LED turns off if there is no active wireless client within 5 minutes.
13. **firmware** The LINK LED shows the status of wireless link if P×P mode is used.
14. **firmware/utility** The range of RTS Threshold has been changed from 0~2432 to 0~3000 (as per tertiary firmware specification).
15. **firmware/utility** The range of Fragmentation Threshold has been changed from 256~2432 to 256~2346 (as per tertiary firmware specification).
16. **firmware** Web-Based Management: Darken the background color to improve the readability for the field work.
17. **firmware** Web-Based Management: In the 'Configuraion – General' page, radio mode-specific parameters can be disabled or enabled according to the changing of access point mode. (IE only)
18. **firmware** Web-Based Management: The 'General Information' page, instead of the welcome page, will be displayed after login.
19. **firmware** Web-Based Management: The title bar now shows the model name.
20. **firmware** The AP's default TTL of IP packets is changed from 64 to 255.
21. **firmware** The evenness of wireless clients' throughput is improved by a new design of the input queue.
22. **firmware** Prevent Windows-based utility from the 'Disconnection' problem.
23. **firmware** The AP now will initialize itself if a crash of tertiary firmware has been detected (Syndrome: gets invalid FID upon buffer allocation request).
24. **firmware** The telnet console will close the connection if user is not active for more than 1 minute.
25. **firmware** Enlarge the stack size of telnet daemon to avoid an unexpected crash of

AP if using ping command from the telnet console.

26. **firmware** Fixes a software defect (out-of-bounds indexing) in the bridge function (ethernet.c) which may menace the reliability of the firmware under extremely heavy traffic.
27. **firmware** Fixes a bug that the AP prevents network buffer from being released if the management services (e.g., telnet, web) were accessed.
28. **firmware** The AP now doesn't generate RARP response which may cause some network devices (e.g., printer server) to receive an invalid IP configuration.
29. **firmware** The AP now can alert an invalid length of WEP key, e.g., 0x112233445 in the 40-bit WEP mode (there is an additional digit five(5)).
30. **firmware** The hardware problem of Ethernet physical layer transceiver (PHY) can be detected and displayed with LED indication (the 'AP' and 'LAN' LED blink in unison).
31. **utility** Bugfix on the inconsistent displaying of 'Enable Access Control' checkbox.

#### **version 2.5.0**

1. **firmware** The core function is based on the v2.5.3 release of XI-1000 Access Point firmware.
2. **utility** The core function is based on the v2.5.0 release of XI-1000 Access Point utility.

## Implementation Limitations

- The access point's IP address cannot respond ping (ICMP Echo request) with data size larger than 1472 bytes (i.e., large ping). The build-in ping command has the same limitation, too. However, this limitation *does not* affect the large ping between wireless client and the network.
- There is significant performance degradation (~50%) when using WEP at 5.5 and 11Mb/s.
- The access control function works only for restricting the access of wireless clients to the Ethernet; the access between wireless clients which associate on *same* access point is not controllable yet.

## Known Bugs

- There is a problem to perform the firmware upgrade (NIC.IMG) of wireless NIC inside. The wireless NIC's PDA (production data area, which includes frequency domain, factory calibration result, ...etc.) information is not loaded into wireless NIC correctly. (*Exists in firmware v2.5.0, corrected by firmware v2.9.0*)
- Access point has problem to reassemble the data packet (MSDU) if the transmitter (wireless client) uses fragmentation with the fragmentation threshold which is set to divide (fragment) data packet (MSDU) into **three or more** fragments (fragment MPDUs).