ZyXEL Prestige 841C VDSL-LT Modem

Version 1.00(DH.1) Release Note

Date: July. 30, 2002

Prestige 841C is a very small VDSL-LT Modem. Although it do not have any remote management capability, and it do not have any GUI for configuration and monitoring. It can provide a low-cost VDSL peer to peer connection. It can extend Ethernet to about 1.5kM. It can also provide about 15M bits under 1KM @ AWG24 twist pair.

Supported Platforms

This F/W is only executed on Prestige 841C VDSL-LT Modem only.

New Features:

New VDSL Rate Adaptation Algorithm

In 1.00(DH.0)c0, the VDSL rate adaptation algorithm is not good enough. We implement a binary search trial and error algorithm for rate adaptation. However, it is slow. If the SNR changes, it may takes several minutes to find a rate.

In this version, we implement a new rate adaptation algorithm that can automatically probing the SNR of the line, and deciding appropriate rates for upstream and downstream according to current line condition within 1 minutes in most cases.

However, due to VDSL chipset's limitation, we can not make it as fast as ADSL, and we can not make it as accurate as ADSL's rate adaptation. So, sometimes it can not connected to maximum rates, but it can connect to slower rate with enough noise margin.

Change History:

1.00(DH.1) (2002/7/30)
1. New Feature: Improve VDSL Rate adaptation.
2. Fix bug: VDSL Driver and VDSL Modem Firmware: Change VDSL Modem code from version 0x50 to 0x56, that will fix a bug that VDSL modem will stop working (VDSL is active, but packet can not pass) after a period time of continuous usage. And, in this version, P841C will force upgrade the modem code in P841 if the modem code version in P841 is earlier than version 0x56). So, after P841C firmware upgrade is complete, and default link is up, it will takes extra 2.5 minutes to upgrade the firmware in remote P841. After this firmware upgrade complete, it will continue link to target rate.
3. Fix bug: VDSL Modem's Ethernet Full Duplex Flow Control: In pervious version, it does not work normally. Now it works fine.
4. Change the meaning of "enet fctrl" command setting. Original, it means only full duplex flow control setting. Now, it means flow control setting (no matter half duplex or full duplex).
5. Fix bug: If password is set to empty (only press ENTER in password setting), and when P841C is power up, press ENTER can not login.
6. Fix bug: If VDSL disconnect during the time that driver is writing the VDSL parameters to NT, it may take several minutes to complete writing. Now, we will check the link status when writing the VDSL parameters to NT. So, the driver will react this faster.
7. Fix bug: Enhance the disconnect detection. It will make VDSL disconnect detection act better.
8. Add Prestige 842 support (Prestige 842 is not released yet, but it will be released soon).

1.00(DH.0)c0 (2002/4/18):

    First Public Release.