



# ADSL Layer Testing

*Troubleshooting the user terminal equipment – ADSL modem replacement with Aurora Presto.*



*Application Note ANPADSL-3*

# xDSL



## TESTING AND VERIFYING THE USER CONNECTION

One of the major problems with ADSL services comes when the user application is activated and it fails to work. A conventional test will determine that the line is ok and the ADSL modems have synchronised and supplied the potential upstream and downstream bit rates but the user PC, set-top box or video terminal fails to work. There are a number of possible reasons for this including:

- IP routing problems to and from the LAN or DTE to the wide area network
- ATM layer throughput constraints caused by the remote modem buffering or an over optimistic ATM multiplexer ratio at the DSLAM where incorrect ATM or IP addressing exists. This causes poor downstream real data throughput.
- ATMF 25.6 interface configuration problems such as PC or NIC interconnect cabling

To troubleshoot all of these problems a number of tests must be possible. PING testing with a payload attached will provide routing checks and test the capacity of the modem and ADSL interface to handle traffic. With many modems (particularly set top boxes) providing ATMF 25.6 interfaces, the ability to check throughput, data quality and ATM virtual channel (VCI / VPI) routing is crucial.

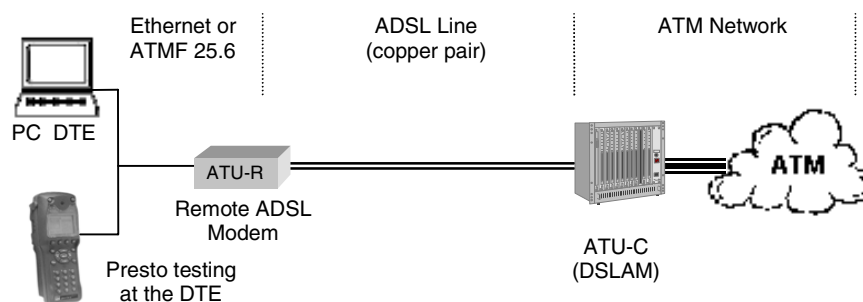


Figure 1

Trend Aurora Presto operating at the DTE on the Ethernet or ATMF 25.6 interface

The Trend Aurora Presto can test routing to the ADSL network, the local PC or LAN using PING testing and the ATM virtual channels in use can be identified and analysed. Aurora Presto provides a complete solution to these types of problems.