



# ADSL Layer Testing

*Troubleshooting the remote and central office modems – ADSL modem replacement with Aurora Presto.*



*Application Note ANPADSL-1*

# xDSL



### TESTING AND VERIFYING THE SUBSCRIBER EQUIPMENT

In many regions where ADSL roll-out is at an advanced stage, on average 3 'truck rolls' or technician visits to the customer are required before an ADSL service is trouble-free. The problems fall into a number of categories:

- Modem synchronisation problems  
These can be caused by incorrect DSLAM settings, poor line performance, remote modem faults and a series of other problems.
- Routing problems where incorrect ATM or IP addressing exists
- User application problems such as PC or NIC card settings

In order to troubleshoot these type of problems properly, a level of testing is required that will intercept and display the activity on the line, the characteristics and operating parameters of the live system. A simple terminate only tester will only provide part of the story since the line system cannot be fully operational to the ATM and IP application levels.

To correctly test these factors, the tester must fully replace the remote modem and provide complete an un-altered passage for ATM cells and their contents between the DTE and the ATU-C..

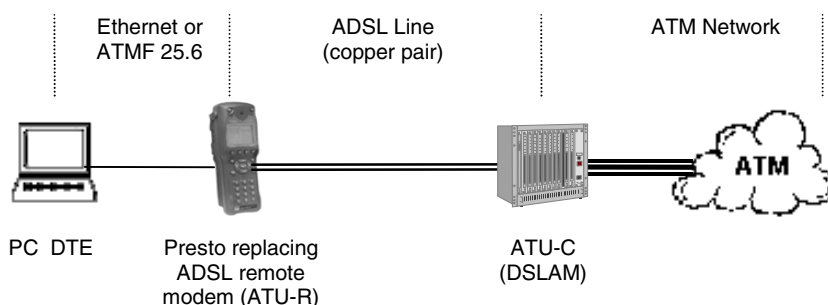


Figure 1

Trend Aurora Presto operating in in-line 'modem replacement' mode.

The Trend Aurora Presto provides complete replacement of a suspect ADSL remote modem with the Aurora Presto operating in true through-line mode, while still allowing the user DTE application to run. The tester can monitor through-put and generate additional traffic to load the user equipment or the network. It can test routing 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.