

**Technical Report
TR-005**

**ADSL Network Element
Management**

March 1998

ABSTRACT:

This project describes parameters or elements of ADSL modem operation that are subject to network management. It does not describe the protocol(s) by which they are managed or the protocol(s) by which control and management message signals pass from an ATU-C to an ATU-R.

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1 Introduction

This document describes various network management elements required for proper management of ADSL physical layer resources where elements refer to parameters or functions within an ADSL modem pair, either collectively or at an individual end.

These elements have been defined without reference to a specific ADSL line code or means of communication between ATU-C and ATU-R.

The network management framework will be covered in Section 3 and SNMP specific implementation will be covered in Section 5.

2 Reference Model

Figure 1 below shows the system reference model adopted by the ADSL Forum. The network management elements covered by this project exist within ATU-C and ATU-R, and are access across the V interfaces. By intention, no network management element shall be accessible via the T interface (that is, by the customer). Glossary contains definitions of each interface in Figure 1.

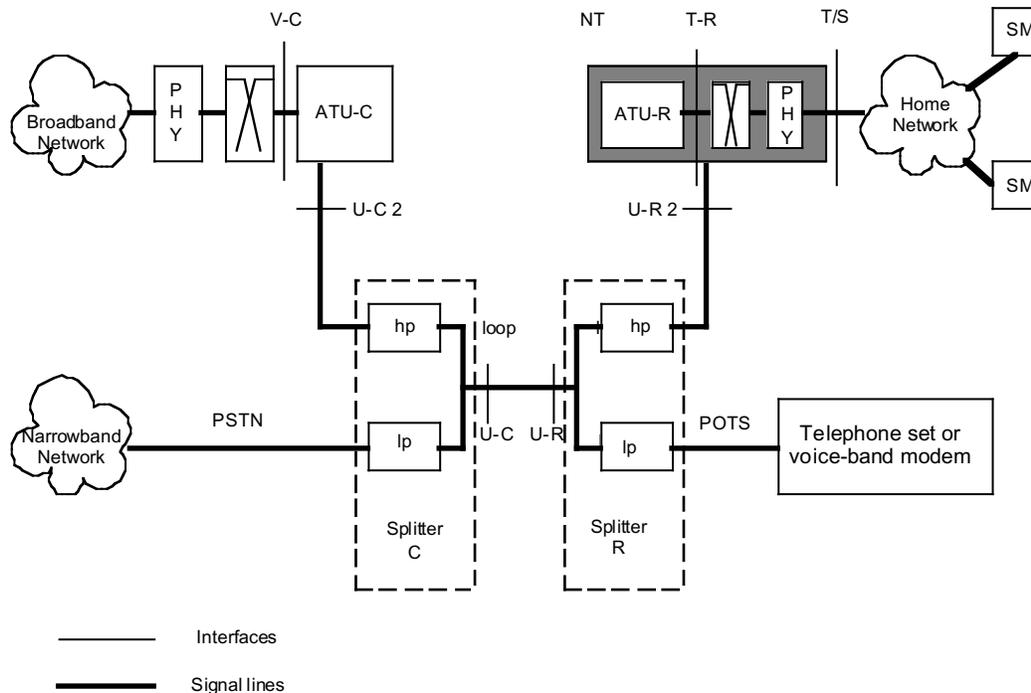


Figure 1 ADSL Forum System Reference Model

3 Network Management Framework

A network management framework consists of at least four components:

1. One or more managed nodes, each containing an agent. The managed node could be a router, bridge, switch, ADSL modem, or other.
2. At least one NMS (Network Management System), which is often called the manager. The manager monitors and controls managed nodes and is usually based on a popular computer.
3. A network management protocol, which is used by the manager and agents to exchange management information.

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