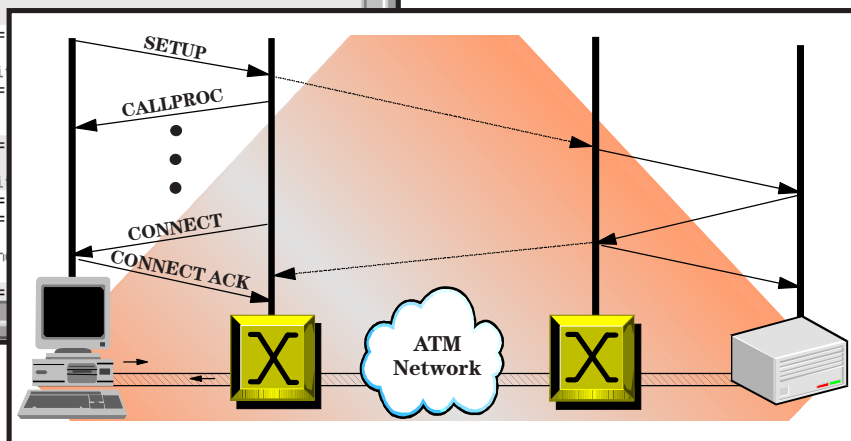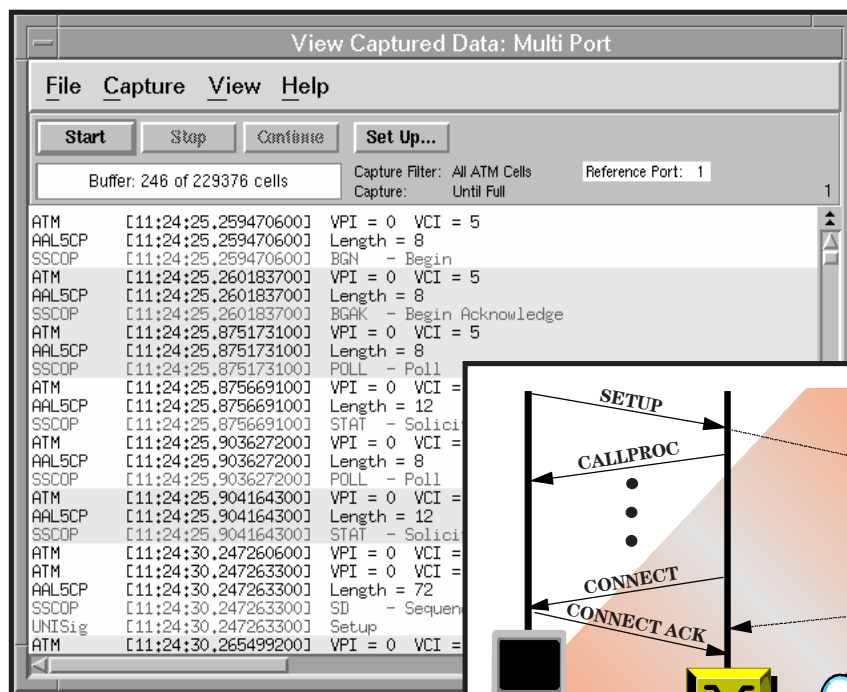# HP E5140A B-ISDN Signaling Test Software (Release 1.0)

For the HP E5200A Broadband Service Analyzer

New
SMARTtests

Key features

- Signaling Emulation SMARTtests
- Signaling Verification
- Signaling Connection Verification
- ATM Forum UNI 3.0, 3.1 and ITU-T Q.2931
- User and Network Messaging
- Full Bi-directional Signaling Emulation
- Online help

The HP E5140A B-ISDN UNI Signaling Test Software adds even more ATM test functionality to the HP E5200A Broadband Service Analyzer. The optional Signaling Test Software can emulate ATM Forum UNI 3.0, 3.1, and ITU-T Q.2931 signaling services.

The service analyzer already comes standard with the signaling decodes analysis package and now with the optional HP E5140A B-ISDN UNI Signaling Test Software provides greater ATM test functionality.

The service analyzer also performs monitoring, simulation, and erroring at the Physical, ATM, AAL (1, 3/4, 5), service layers and now also at signaling layers.

SMARTtests

SMARTtests are predefined tests that enable rapid test initiation by avoiding complicated and time-consuming instrument configuration procedures. You can start a SMARTtest quickly and easily without the need to develop complex test routines.
For SVC Analysis, the HP E5200A Broadband Service Analyzer now offers two new SMARTtests: the

HP E5200A Broadband Service Analyzer

Signaling Verification SMARTtest and the Signaling Connection Verification SMARTtest.

Signaling Verification SMARTtest

Use this SMARTtest is to verify the correct operation of only the signaling process between network elements. For example, the functionality of the signaling software in a port controller of an ATM switch could be tested. The Signaling Verification SMARTtest provides the ability to verify the operation of a signaling system by cyclically establishing and releasing up to 256 simultaneous connections in full emulation mode. User control over call duration, idle time, and offset (call initiation rate) can be used to perform manual fault isolation by displaying the following results:
• number of connections initiated
• number of connections completed
• connection success rate (percentage)
• connection failure rate (percentage)
• reason for failure

Signaling Connection Verification SMARTtest

This SMARTtest allows you to verify the correct operation of the signaling process *and* the data connection established between network elements. For example, the functionality of the signaling software and fabric control in an ATM switch could be tested.

The Signaling Connection Verification SMARTtest enables you to establish SVC connections and transmit AAL-1 data to verify the integrity of the connection established by the signaling procedures. It displays the following results:
• number of connections initiated
• number of connections completed
• connection success rate (percentage)
• connection failure rate (percentage)

• number of cells lost
• cell loss ratio
• reason for failure
• number of cells transmitted
• number of cells received

HP E5200A Broadband Service Analyzer

The HP E5200A Broadband Service Analyzer is a dedicated ATM analyzer with an architecture optimized for monitoring, simulating, and configuring core PVC and SVC ATM networks.

The optional HP E5140A B-ISDN UNI Signaling Test Software addresses the needs of people manufacturing, deploying, optimising and maintaining their core ATM network infrastructure.

The service analyzer shows the important interactions between the elements of the service, instantly notifying you of abnormal network conditions.

In addition to extended software analysis capabilities, the service analyzer has an ever evolving ATM connectivity suite that now includes: J2, E1, E3, T1, T3, DS1, DS3, OC-3/STM-1 optical (singlemode and multimode), and STM-1 electrical interface pods.

System Requirements

The HP E5140A B-ISDN UNI Signaling Test Software is available as an add-on application to the HP E5200A Broadband Service Analyzer. Simply make sure you have the following system configuration:

• HP E5200A Broadband Service Analyzer
• E5200A opt 002 (Release 2.0 or later)
• E5140A B-ISDN UNI Signaling Test Software
• HP Supported Win 95 configured PC or HP-UX A.09.05 workstation