

# Remote End-to-End Cell Loss Testing

## Using the HP E5200A Broadband Service Analyzer and HP E5180A Broadband Launch Pad

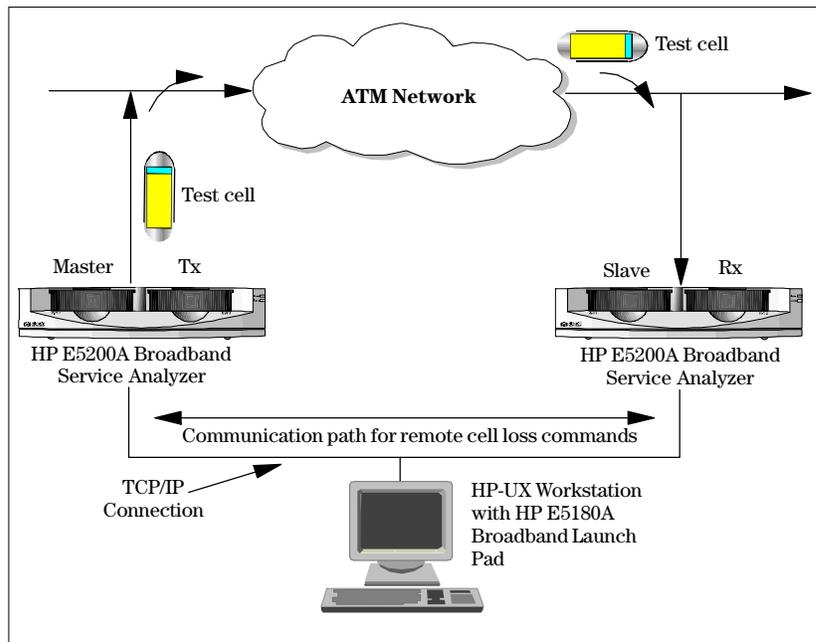
Remote Quality of Service (QoS) testing on an ATM network is made easy using the HP E5180A Broadband Launch Pad together with the *new* remote cell loss macro test. The remote cell loss macro test is available as *standard* on the HP E5200A Broadband Service Analyzer.

With the HP Broadband Launch Pad, you can remotely launch the graphical user interface (GUI) of multiple service analyzers installed throughout your network, and have all of the functionality available to you from a single workstation.

You can use the HP Broadband Launch Pad to remotely initiate any of the service analyzer features, including the new QoS and Traffic Performance test suites. Combined, the capabilities of the HP Broadband Launch Pad and the remote cell loss macro test provide geographical transparency, allowing you to perform end-to-end QoS testing across even the largest of ATM networks.

The remote cell loss macro test has been specifically designed to provide end-to-end QoS testing between any two remote points on your network. Using two service analyzers, test cells are injected at one point in the network and received at another, providing you with an end-to-end quality of service measurement.

Using the HP Broadband Launch Pad, you can remotely launch the GUI for any two service analyzers in the network to provide access to the remote cell loss macro test. You initiate the macro test on one of the



### Remote cell loss macro test

two analyzers through the *Macro* item on the main menu, or by telnet access to the service analyzer. The test prompts you to specify the IP address and port of the service analyzer that is to transmit the test cells, which makes it the master analyzer. You then specify the IP address and port of the second analyzer (the slave) that is to receive the test cells.

The master service analyzer controls and monitors the second service analyzer across the LAN or WAN segment. Any tests running on either of the two service analyzers are stopped, and the measurement systems are automatically re-configured for the remote cell loss macro test to start. The slave service analyzer counts the number



HP E5200A Broadband Service Analyzer

of cells received, including the number of errored cells, and monitors for any CRC errors in the test cell. The results are fed back to the master service analyzer via the LAN/WAN connection, where the QoS calculations are completed and displayed on your workstation.

The remote cell loss test calculates the following QoS parameters

- cell loss (count/ratio)
- cell misinsertion (count/ratio)
- cell error (count/ratio)

## HP E5200A Broadband Service Analyzer

The HP E5200A Broadband Service Analyzer gives you complete network analysis control—much more than ordinary test technology. The service analyzer allows you to manage the end-to-end quality of your service. The service analyzer shows the important interactions between the elements of the service, instantly notifying you of abnormal network conditions. The HP E5200A Broadband Service Analyzer is designed to meet your many test needs. It leads the way in a new class of portable test instruments specifically designed for dispatched, remote, and distributed applications.

## HP E5180A Broadband Launch Pad

The HP Broadband Launch Pad is a flexible console application that makes remote testing easy. It allows you to centrally manage and control broadband test instruments that are installed in your network. The HP E5180A Broadband Launch Pad has been specifically designed to work with the HP E5200A Broadband Service Analyzer to provide remote testing and analysis of ATM based services. The HP Broadband Launch Pad allows you to also maintain an accurate record of test instruments

installed in the network. You can integrate the HP Broadband Launch Pad with HP OpenView and start the Broadband Launch Pad application from an HP console.

## System Requirements

To perform the measurements described in this solution note the following is required:

### *For the HP E5200A Broadband Service Analyzer*

- HP E5200A Broadband Service Analyzer
- HP E5200A Opt 002 (Release 1.3 or later)

### *For the HP E5180A Broadband Launch Pad*

|                  |   |
|------------------|---|
| Workstation      | HP9000/700 series   |
| Operating system | HP-UX 9.05 or later   |
| Disk Space       | 10MB free   |
| Memory           | 32 Mb or more   |
| Connectivity     | TCP/IP access to all managed instruments. Minimum recommended bandwidth 56 kb/s |

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For more information, call your local HP sales office listed in your telephone directory or an HP regional office listed below for the location of your nearest sales office.

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