ATM Configuration Guide*

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Abstract

A simple Asynchronous Transfer Mode (ATM) feature built at the Communications Networks Research Group (CNRG) of University of New Hampshire (UNH) is available for NS-2. The module provides a capability to create and analyze Permanent Virtual Circuits (PVC) and the ATM Adaptation Layer-5 (AAL5) concepts. For a detailed discussion on the supported functionality and architecture of the ATM simulation engine, refer to "The ATM simulator architecture" document. This paper describes the User-Interface (UI) to the ATM simulation module.

1 Introduction

The User Interface provides a mechanism to create, delete and analyze ATM Permanent Virtual Connections The following commands are available for the UI:

2 ATM PVC commands

1. add-pvc
2. add-resources
3. attach-conditioner

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3 ATM QoS commands

1. set-cbr
2. set-rt-vbr
3. set-nrt-vbr
4. set-abr
5. set-ubr
6. set-gfr

4 ATM Conditioner commands

1. conditioner-statistics
2. set-profile
3. add-pvc_dbase
4. total-service-rate

5 ATM Scheduler commands

1. scheduler-statistics
2. queue-length-cbr
3. queue-length-rt-vbr
4. queue-length-nrt-vbr
5. queue-length-abr

6. queue-length-ubr
7. queue-length-gfr
8. queue-weight-cbr
9. queue-weight-rt-vbr
10. queue-weight-nrt-vbr
11. queue-weight-abr
12. queue-weight-ubr
13. queue-weight-gfr
14. attach-pvc_dbase
15. set-qlength
16. set-qweight

6 SARDriver commands

1. is_atmswitch
2. set-atm
3. sardriver-statistics
4. configure-atmswitch
5. start-timer
6. attach-aal5