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Title: Proposed text for Performance Testing Terminology

Abstract: This contribution provides the text for Performance Testing Terminology.

Source:

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In the March '98 interim meeting of ATM Forum TEST and TM working at Columbus, Ohio, it was decided to generate a terminology section for performance testing. The purpose of this contribution is to provide the terminology section for the current baseline draft [1].

Motion: Replace Section 1.4 of the current baseline draft [1] by the remaining text of this contribution

ATM Interface - ATM physical interface where the ATM traffic enters and/or leaves the switch.

ATM connection - An ATM connection consists of the concatenation of ATM layer links in order to provide an end-to-end transfer capability to access point [from I.150].

ATM Analyzer - ATM measuring equipment used to measure the characteristics of traffic received from SUT

ATM Generator - ATM measuring equipment used to produce traffic with specified characteristics

Background Traffic - Traffic made up of cells whose purpose is to load the SUT at an appropriate level but the performance of these cells is not of primary interest.

Background connection - An ATM connection that carries background traffic.

Connection Load - Precisely defined specification of a pattern of ATM cells and gaps between them over a single connection; When cells are parts of frames, a connection load may be defined in term frame pattern and inter-frame gaps distribution.

Foreground Traffic - Traffic made up of cells or frames whose performance is being measured.

Foreground connection - An ATM connection that carries foreground traffic

Frame - A sequence of cells produced by AAL SAR (Segmentation and Reassembly) sublayer as result of segmentation of one SDU from AAL Convergence sublayer

Frame Pattern - Precisely defined pattern of cells and intra-frame gaps, inter-frame gaps, and frame sizes. A frame pattern can be defined statistically in terms of distributions of frame sizes, inter-frame gaps, and intra-frame gaps.

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Frame Size - Number of cells in a frame.

Input ATM Interface Rate - Maximum nominal rate in cells/second at which the cells can be received at the interface.

Inter-frame Gap - time between transmission of the last bit of the last cell one frame and transmission of the first bit of the first cell of the next frame.

Interface Load - Set of Connection Loads applied to an Input ATM Interface.

Intra-frame Gap - Time between transmission of the last bit of one cell and transmission of the first bit of the next cell of the same frame.

Loopback - An external connection that connects the output and input of the same ATM interface.

Measurement point - See I.353.

Metric - A quantitative measure of the goodness of overall service offered by a SUT, for example, throughput, throughput fairness.

Monitor - same as ATM measuring equipment

Network module - A group of switch ATM interfaces that physically reside on a single card.

Output ATM Interface Rate - Maximum nominal rate in cells/second at which the cells can be transmitted from the interface.

Parameter - A quantitative measure of the goodness of services received by a connection, for example, cell transfer delay, cell delay variation.

Port - same as ATM Interface.

Reference Load - Set of Interface Loads applied to SUT.

Scalable configuration - Configuration that permits to load the SUT using a minimal number of ATM monitors.

Switch Fabric - The switch component whose main function is to transfer cells among various interfaces of the switch.

System Under Test (SUT) - Any collection of ATM equipment that is being tested. It could be a single switch or a network of ATM switches.

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Traffic Load - Connection Load, Interface Load or Reference Load

Wire - The physical medium used for external connections of the SUT's ATM interfaces.
The medium could be copper cables, optical fibers, or wireless links.

References:

1. ATM Forum/BTD-TEST-TM-PERF.00.07 (Draft)