Data Center Benchmarking Drafts

draft-bmwg-dcbench-terminology-04(8th revision)
draft-bmwg-dcbench-methodology-01(7th revision)

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Data Center Benchmarking Drafts Overview

Terminology
draft-ietf-bmwg-dcbench-terminology-04

Latency
Redefine how latency calculations are used
Update usage of FIFO, FILO, LIFO and LILO

Jitter
Define the application Jitter RFC 3393 and packet size requirement and histogram for DC devices

Physical Layer Calibration
Cable test calibrations and documentation

Line Rate
Consequences of PPM: 99.98%

Buffering
Define Buffering and Buffer Efficiency, Burst, Intensity of Microburst
Define Incast [many-one, many-many]

Application Throughput
Goodput definition and how to measure it

Methodology
draft-bmwg-dcbench-methodology-02

Line Rate Testing
Test all ports at 99.98% including latency, jitter histogram for min/max/avg and drops

Buffering Testing
Buffer highest efficiency
Maximum port buffer size
Maximum port pair buffer size
Maximum DUT buffer size
Microburst

MicroBurst Testing
Use all ports, at 100% intensity of microburst

Head of Line Blocking Testing
Measure two groups (8 ports) of DUT, up to all ports
Reports provides percent of traffic loss during HOLB

Incast Stateful and Stateless Traffic
measure TCP goodput while measuring UDP latency

Last Changes

- Jitter / Delay variation updated
- Incorporated all mailing lists numerous feedbacks (including Scott's word document)
  - Line Rate
  - Repeatability of testing
  - Buffers (bigger doesn't mean better)
  - Vocabulary/ Semantics and Units

Next Steps

What's needed next?

- Update Goodput with RFC2647 definition
- Cleanup RFC terminologies (AL email on 2/23)
- Currently Last Call