

IEEE 802.3 Tutorial: **Interspersing Express Traffic on IEEE 802.3 Networks**

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Geneva, CH

“Distinguished minimum latency traffic in a
converged traffic environment”

DMLT

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ABSTRACT

There is a need for support of time sensitive traffic in a converged traffic environment in IEEE 802.3 networks that supports interspersed express traffic and the traditional normal traffic. This would help address the requirements in markets such as industrial and automotive control networking, where control data is time-sensitive and often requires minimum latency. This tutorial will examine the needs of time sensitive traffic in IEEE 802.3 networks, the support for interspersed express traffic and the ordinary traffic, and will provide background for the PAR proposed by the IEEE 802.3 Distinguished Minimum Latency Traffic (DMLT) Study Group.

Presenters

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Reflector and Web

- Study Group reflector

stds-802-3-DMLT@listserv.ieee.org

To subscribe to the DMLT-reflector, send an email to: ListServ@ieee.org with the following in the body of the message (do not include “<>”):
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- Study Group web page URL:

<http://www.ieee802.org/3/DMLT/>

- Tutorial material available at:

<http://www.ieee802.org/3/DMLT/>

Draft PAR (IEEE P802.3br)

- IEEE P802.3br PAR – David Law, 802.3 chair, selected that designation.
- See <https://development.standards.ieee.org/P827400033/par-submit>
- And on the DMLT web site:

PAR title

- SG DMLT proposes a PAR title:
IEEE Standard for Ethernet
Amendment Specification and Management
Parameters for
Interspersing Express Traffic.
- Scope:
 - The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add a support **for interspersed express traffic.**

Structure of the Tutorial

- Market needs and potential (5min)
 - Benefits of converged solution with **interspersed express traffic (10)**
- Set up the problem
 - Status today with Ethernet parallel networks and legacy networks (5min)
 - Describe a converged network (802.1 approach)
 - Problems
 - Improving Latency is not the problem
 - It's making more the bandwidth left over after the critical traffic usable by the other traffic
- Approach
 - A potential approach
 - Technical and economic feasibility
 - Just speed things up (28.4)
 - Undersubscription/Overprovisioning under 28.4
 - Parallel links
 - Fragmentation above the MAC
 - Why hop by hop
 - Why fragments are not full frames
- Conclusion (5)
- Discussion (25)

FaQ dispersed through the presentation

- ATM E2E Reassembly is the best solution?
- Why not to continue with parallel networks?
- Why the frames do not look like normal frames?
- Why is interspersed traffic needed in the car?
- Why is RTPG not enough?

TelCo

- Wednesday
- 17:00 CEST = 08:00 PDT
- Starting 2013-05-29, then 2nd and 4th Wednesday of the month

THANK YOU

for your attention

