Network Definition CoRE4INET: examples/tsn/medium_network

- Oscillator
 - max_drift 200ppm
 - drift_change uniform(-12.5ppm,12.5ppm)
- DummySync
 - cycle 3ms
 - precission 500ns
- Queue
 - size = 4

S7	100Mbit/s Ethernet links 0.0m cable length
S6	Switch
S5	SWITCH
S0	8us hardware delay

Name	Sender	Receiver	Size (B)	Offset	Interval (us)	Priority	Shaping
CRITICAL	S7	R	L2: 1522	Os	300	7	-
HIGH	S6	R	L2: 322	Os	125	6	CBS SRCLASS A
MEDIUM	S5	R	L2: 322	1ns	250	5	CBS SRCLASS B
BEST EFFORT	SO	R	L2: 1518	Os	125	-	-





Best/Worst Case CRITICAL(7)

- 8us
 - hardware delay
- 244.8us
 - 2x transmission (L1: 1530Byte)
- => 252.8us

- 122.08us
 - BE Interference (L1: 1526Byte)
- 0.96us
 - IFG
- 8us
 - Hardware delay
- 244.8us
 - 2x transmission (L1: 1530Byte)
- => 375.84us





Simulation Results (4s) CRITICAL(7)

4s Simulation:

Count 13333

Mean 2.985244671116778E-4

StdDev 3.6633493918176364E-5

Min 2.5296E-4

Max 3.7584E-4

=> 252.96us≈ **252.8us**

=> 375.84us= **375.84us**





Best/Worst Case HIGH(6)

- 8us
 - hardware delay
- 52.8us
 - 2x transmission (L1: 330Byte)
- => 60.8us

- 244.48us
 - BE Interference (L1: 1526Byte)
 - CRITICAL Int. (L1: 1530Byte)
- 1.92us
 - 2x IFG
- 8us
 - Hardware delay
- 52.8us
 - 2x transmission (L1: 330Byte)
- => 307.2us





Simulation Results (4s) HIGH(6)

4s Simulation:

Count 32000

Mean 1.61194955E-4

StdDev 7.362117934390194E-5

Min 6.08E-5

Max 3.072E-4

=> 60.8us = **60.8us**

=> 307.2us = **307.2us**





Best/Worst Case MEDIUM(5)

- 26.4us
 - HIGH Interference (L1: 330Byte)
- 0.96us
 - IFG
- 8us
 - hardware delay
- 52.8us
 - 2x transmission (L1: 330Byte)
- => 88.16us

- 472.48us
 - BE Interference (L1: 1526Byte)
 - 2x CRITICAL Int. (L1: 1530Byte)
 - 4x HIGH Int. (L1: 330Byte)
- 6.72us
 - 7x IFG
- 8us
 - Hardware delay
- 52.8us
 - 2x transmission (L1: 330Byte)
- => 540us





Simulation Results (4s) MEDIUM(5)

4s Simulation:

Count 15999

Mean 2.471058491780736E-4

StdDev 1.0653374659967007E-4

Min 8.8159E-5 +1ns Offset => 88.16us = **88.16us**

Max 5.35999E-4 +1ns Offset => 536us !! **540us**





Simulation Results Worst Case MEDIUM(5)

