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ATM Switch Performance Testing Experiences

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EPD

- ❑ Extra EPD overhead under "no loss"
 - ⇒ No Loss throughput may be lower with EPD
 - ⇒ Turn off EPD for “no loss”
- ❑ Actual measurements showed no difference with EPD on/off (Just one sample)
- ❑ If found different, we may add separate throughputs with and W/O EPD.

MIMO Latency

- If Input rate \leq Output Rate
MIMO Latency = LILO
- If Input rate \geq Output Rate
MIMO Latency = FIFO + Frame output time -
Normalized Frame Output Time
- If Input rate = output rate, either one can be used

1st cell delay	last cell delay	1st cell-last cell inter-arrival time	MIMO latency [1]	FIFO latency	FOLO time	FILO latency	MIMO latency [2]
21.5	21.5	541.0	18.2	18.2	543.83	562.03	18.44
18.5	21.0	543.5	17.7	15.2	546.33	561.53	17.94

Frame Loss Ratio

- ❑ Load = 100.32% of output link rate

Metric	Input 1	Input 2	Input 3	Input 4	Mean
Cell Loss Ratio	0.00333	0.00381	0.00387	0.00278	0.00345
Frame Loss Ratio	0.288	0.283	0.204	0.283	0.265

- ❑ Load = 120% of output link rate

Metric	Input 1	Input 2	Input 3	Input 4	Mean
Cell Loss Ratio	0.177	0.187	0.157	0.146	0.167
Frame Loss Ratio	0.817	0.784	0.736	0.820	0.789

- ❑ Load = 400% of output link rate

Metric	Input 1	Input 2	Input 3	Input 4	Mean
Cell Loss Ratio	0.742	0.743	0.743	0.744	0.743
Frame Loss Ratio	1.0	1.0	1.0	1.0	1.0