IETF 112, IPPM WG draft-ietf-ippm-connectivity-monitoring

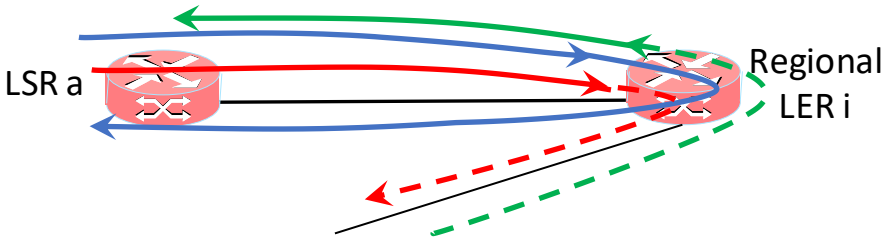
Scope:
Monitor Segment Routed subpaths or links to detect and locate loss of connectivity and congestion.

Status:
Currently Standards Track – Experimental is likely more suitable.

Changes -00 up to -02 (and partially -03):
-00: improved prose description of SR monitoring loop overlay and metrics.
-01: formalized measurement loop and metric definitions. Still incomplete and will benefit from review.
-02: started work on a packet loss based connectivity metric, which will be part of draft -03. Metric definition was finalised after cut-off, see next slide.

IETF 112, IPPM WG [draft-ietf-ippm-connectivity-monitoring]

Connectivity-metric (to be part of draft -03):

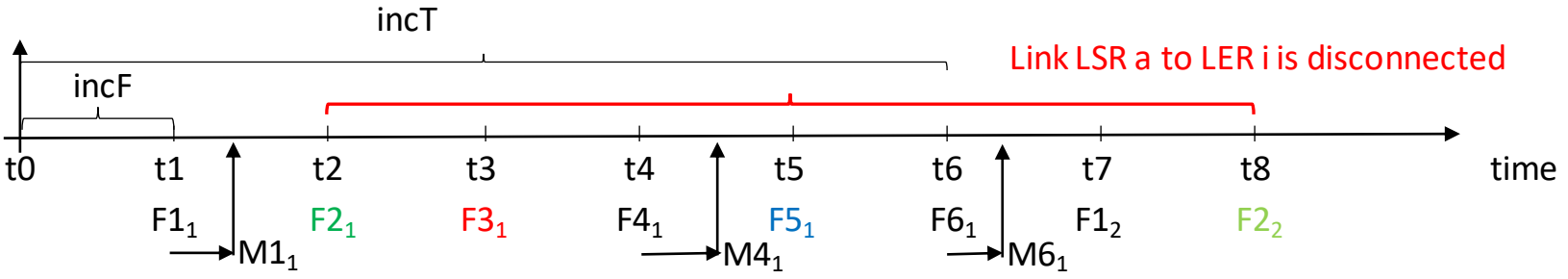


Simultaneous packet loss on mea-
surment paths 1, 2 and 3 indicate loss of
connectivity between LSR a and LER i

Monitoring-loop F2 (Fk)
Monitoring-loop F3 (Fj)
Monitoring-loop F5 (Fi)

Fi Measurement-loop i (in the figure also time, wehen a packet is sent along Fi)
i in [1…6] ….. 6 measurement-loops are required.
Mi Delay of a packet passing Fi under stable network conditions
incT Time between two consecutive packets sent along the same measurement-loop Fi
IncF Time between two consecutive packets sent along conscutively measured Fi and Fj

incF > max (Mi) - a parameterised definition will be given in draft version -03



Definition of SR-Path-Sub-Path-Disconnected: A monitored sub-path SPi is disconnected, if no measurement packet is received from Fi, Fj and Fk during any interval incT