



Explicit Congestion Marking in MPLS

[draft-ietf-tsvwg-ecn-mpls-00.txt](#)

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updated draft (v minor)

individual draft -01 ⇒ WG item -00

- Explicit Congestion Marking in MPLS
 - **updated draft:** draft-ietf-tsvwg-ecn-mpls-00.txt
 - **status:** standards track WG item
 - **immediate intent:** move to WG last call soon
jointly with MPLS w-g as agreed
- changes from previous draft-davie-ecn-mpls-01.txt
 - changed filename
 - trivial text updates (up-rev'd refs)
 - diffs and alt formats (courtesy of rfcdiff & xml2rfc tools) at:
<<http://www.cs.ucl.ac.uk/staff/B.Briscoe/pubs.html#ecn-mpls>>

main tech issues on list(s) since previous IETF

- copy rather than reset ECN at MPLS ingress \neq RFC3168 ECN tunnelling
 - RFC3168 only said reset because security folks thought copy might leak info
 - concern has been resolved – updated IPsec RFC4301 (Dec 05) copies ECN at ingress
 - RFC3168 tunnelling section needs updating to reflect later security thinking and practice
- prove ECN will be useful in MPLS before adding it
 - ECN enables congestion control without need for drop
 - for optional RFCs (cf Diffserv in MPLS) vendors can decide if RFC is useful, not IETF
 - operators may want VPNs and constraint-based routing AND Diffserv/ECN capabilities
- why put a function already in a higher layer in a lower layer?
 - congestion info travels from lower layers upwards – *physical* resource exhaustion
 - if don't have ECN in MPLS header, LSR has to mark IP header to do ECN
- don't believe droppable data will decrease if ECN becomes widespread
 - clarification **to be added**: “droppable” means “to be dropped on MPLS decapsulation” because outer MPLS header congestion marked but inner IP header not ECN capable



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Q&A