The Addition of Explicit Congestion Notification (ECN) to IP

draft-ietf-tsvwg-ecn-02.txt

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The changes in draft-ietf-tsvwg-ecn-02.txt:

- Defining the last codepoint in the ECN field in the IP header.
  - From the IESG Last Call.

- Adding a paragraph about fragmentation.
  - From Briscoe/Crowcroft.

- Adding a paragraph about the ECN field with Differentiated Services Per-Hop Behaviors.
  - From Briscoe/Crowcroft.

The fourth codepoint:

```
+-----+-----+
| ECN FIELD |
+-----+-----+
  ECT   CE         The ECT and CE bits defined in RFC 2481.
   0     0         Not-ECT
   0     1         ECT(1)    * THIS IS THE NEW CODEPOINT *
   1     0         ECT(0)
   1     1         CE

The ECN Field in the IP Header.
```

Section 5.3 on Fragmentation:

- “All ECN-capable packets SHOULD have the DF (Don’t Fragment) bit set.”

- “Reassembly of a fragmented packet MUST NOT lose indications of congestion.”

The ECN field with Differentiated Services:

- “The above discussion of when CE may be set instead of dropping a packet applies by default to all Differentiated Services Per-Hop Behaviors (PHBs) [RFC 2475].”

- “Specifications for PHBs MAY provide more specifics on how a compliant implementation is to choose between setting CE and dropping a packet, but this is NOT REQUIRED.”

- “A router MUST NOT set CE instead of dropping a packet when the drop that would occur is caused by reasons other than congestion or the desire to indicate incipient congestion to end nodes.”

\- In Section 5.