

Classifier for DSCP/ECN

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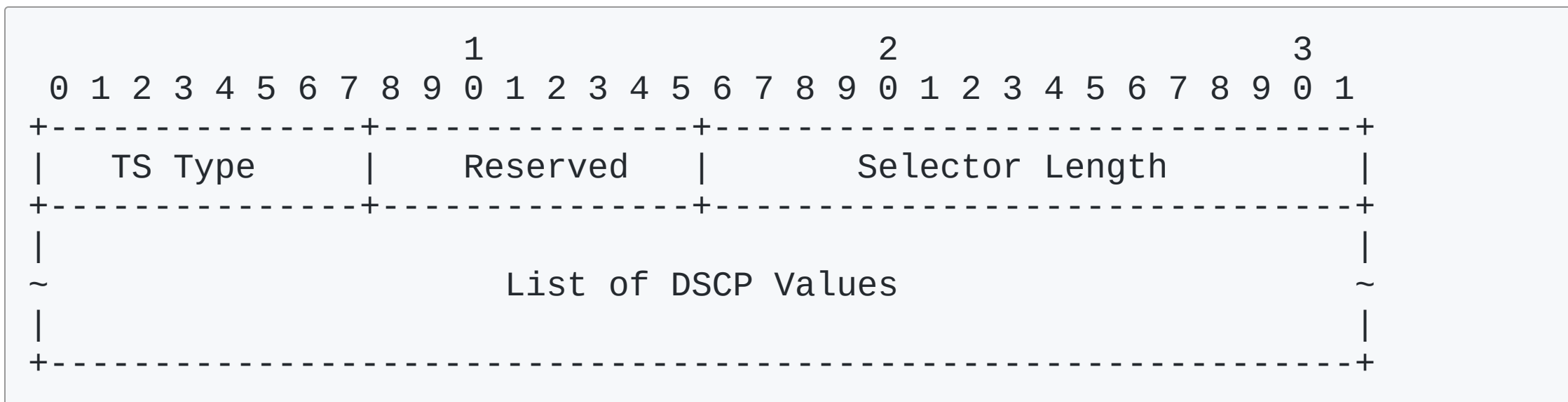
Goal: to be able to negotiate SA dedicated to a list of DSCP values.

As per [RFC4301](#) Section 4.1,

Traffic with different DSCP value result in inappropriate discarding of lower priority packets due to the windowing mechanism used by this feature.

Although the DSCP and ECN fields are not "selectors", as that term is used in this architecture, the sender will need a mechanism to direct packets with a given (set of) DSCP values to the appropriate SA. This mechanism might be termed a "classifier".

Defining new TS that includes a range of acceptable DSCP: TS_DSCP_LIST



The CREATE_CHILD_SA request for rekeying a Child SA is:

```
Initiator                               Responder
-----
HDR, SK {N(REKEY_SA), SA, Ni, [KEi,]
  TSi, TSr}  -->
with:
  TSi = ( TS_IPV6_ADDR_RANGE, TS_DSCP_LIST1, TS_DSCP_LIST2 )
  TSr = ( TS_IPV6_ADDR_RANGE )

                                     <-- HDR, SK {SA, Nr, [KEr,]
                                           TSi, TSr}

with:
  TSi = ( TS_IPV6_ADDR_RANGE, TS_DSCP_LIST1 )
  TSr = ( TS_IPV6_ADDR_RANGE )
```

TS_DSCP_LIST1, can be repeated or not in TSr and needs to be mentioned only once.

TS_DSCP_LIST MUST be ignored in transport mode

If TS_DSCP_LIST is not supported a TS_UNACCEPTABLE is returned

- no fall back

DSCP values are checked against those agreed in TS

Thanks!