

draft-venaas-pim-reserved- bits-01

Stig Venaas, stig@cisco.com

Alvaro Retana, alvaro.retana@huawei.com

Use of reserved bits

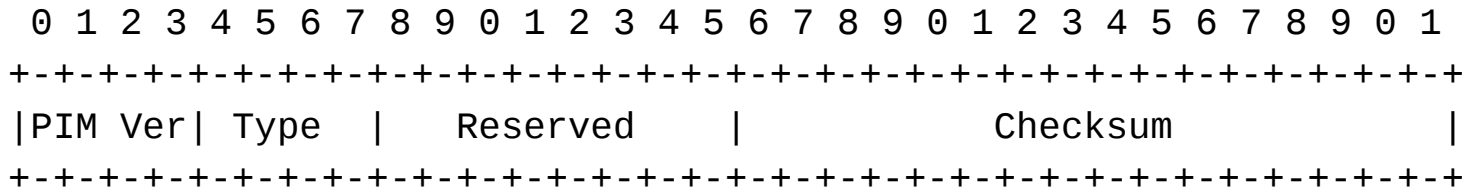
- Several pim message types use reserved bits
 - Not clear that reserved bits should be per message type
 - RFCs using reserved bits should have updated RFC 4601 or RFC 7761
- This draft fixes the above and defines a registry as below.

Type	bit(s)	Name	Reference
------	--------	------	-----------

4	7	No-Forward	[RFC5059]
10	4-7	Sub-type	[RFC5015]
12	7	No-Forward	[RFC8364]
13	4-7	Extended type	[this document]
14	4-7	Extended type	[this document]
15	4-7	Extended type	[this document]

Extending the type space

- The current pim type space is only 4 bits. We have used 0-12.
- The current pim message header is:



- Extend the type space by defining types 13-15 using 4 reserved bits each to define a sub-type (similar to pim DF sub-types).
 - This gives us 3*16 additional pim message types denoted 13.0 – 13.15, 14.0 – 14.15 and 15.0 – 15.15.
 - The header for types 13-15 is defined as below.

