

draft-ietf-nvo3-vxlan-gpe-08

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Changes since -06

- “shim” headers:

Next protocol values from 0x80 to 0xFF are assigned to protocols as generic "shim" headers. These protocols, when present, MUST be encapsulated before protocols identified by next protocol values from 0x0 to 0x7F.

Implementations that are not aware of a given shim header MUST ignore the header and proceed to parse the next protocol.

Shim Headers Discussion

***Transit nodes** that are not aware of a given shim header **type** MUST ignore the shim header and proceed to parse the next protocol.*

Shim headers can be used to incrementally deploy new GPE features without updating the implementation of each transit node between two tunnel endpoints, and without punting the packet with shim headers of unknown type to the 'slow' path.

Next Protocols

Next Protocol	Description	Reference
0x0	Reserved	This Document
0x1	IPv4	This Document
0x2	IPv6	This Document
0x3	Ethernet	This Document
0x4	NSH	This Document
0x5	MPLS	This Document
0x6	Unassigned	
0x7	vBNG	This Document
0x8..0x7F	Unassigned	
0x80	GBP	This Document
0x81	iOAM	This Document
0x82..0xFF	Unassigned	

Next Protocols

- In ASIC implementations, allocation of buffers to support extensions comes at a cost
 - It's hard to justify cost to support features that may or may not be used
- Advancing the drafts that are specifying well known use cases may expand support of features such as:
 - GBP - draft-lemon-vxlan-lisp-gpe-gbp
 - iOAM - draft-brockners-ippm-ioam-vxlan-gpe-03

Next Steps

- Publish new version addressing comments
- Last call to advance to informational?