

draft-ietf-geopriv-dhcp-lbyr-uri-option-04

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The Scope

- This doc creates a DHCP Option to deliver a LocationURI to a client

What's Changed between in WG -04

- Adapted new Option format to that accepted in RFC 4776
 - i.e., “Type / Length / Value”
 - Allows for
 - #1 commonality between DHCP Options for Location
 - #2 easy extensibility
- Added IPv6 Option format
- Made Valid-for optional (i.e., its own ‘Type’), equivalent to zeros in field when mandatory

The Option Format Change

- Changed the already simple DHCP LbyR Option from this:

0	1	2	3								
0 1 2 3 4 5 6 7 8 9 0	1 2 3 4 5 6 7 8 9 0	1 2 3 4 5 6 7 8 9 0 1									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											
Code XXX Option Length		Valid-for									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											
Location URI											
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											
/		\								
\		/								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											
Location URI (cont'd)		+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											

The Option Format Change

- To this for IPv4:

Figure 1. IPv4 Fields for this LbyrElement Option

Code XXX: The code for this DHCPv4 option (IANA assigned).

Length=XX: The length of this option, counted in bytes - not counting the Code and Length bytes. This is a variable length Option, therefore the length value will change based on the length of the LbyR within the Option.

Ver: (4 bits) The version of this Option. This will specify version 1.

Resv: (4 bits) reserved for future use.

The Option Format Change

- and this for IPv6:

Figure 2. IPv6 fields of this LbyrElement Option

option-code: The code for this DHCPv6 option (IANA assigned).

option-len: The length of this option, counted in bytes - not counting the Code and Length bytes. This is a variable length Option, therefore the length value will change based on the shape within the Option.

Ver: See above (Section 2.1). This will specify version 1.

Resv: See above (Section 2.1).

The Option Format Change

- Adapted “LbyrElements” format from RFC 4776:

0	1	2	3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1	-----	-----	-----
LbyrType LbyrLength LbyrValue ...	-----	-----	-----
-----	-----	-----	-----

Figure 3. LbyrElement Format for both IPv4 and IPv6

LbyrType: A one-byte identifier of the data location value.

LbyrLength: The length, in bytes, of the LbyrValue, not including the LbyrLength field itself, up to a maximum of 255.

LbyrValue: The LbyrElement value, as described in detail below.
The LbyrValue is always in UTP-8.

Open Issues

- Need to correct concatenation of IPv6 Options
- Maintaining the TLV format might allow Option to drop version and reserved fields
- Need to get with Martin to iron out his last few comments
- Addressed all others that were mentioned on list
- Author feels this is almost done

