

DHCPv4 Option for discovering IEEE 802.2 1 Information Service Location

draft-daniel-dhc-mihis-opt-02.txt

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Outlook on IEEE802.21 Information Service

- *IEEE802.21 is consist of three kinds of services.*
 - *MIES: Media Independent Event Service*
 - *MICS: Media Independent Command Service*
 - *MIIS: Media Independent Information Service*
- *MIIS provides a framework by which a MIH function both in the MN and in the network can discover and obtain homogeneous and heterogeneous network information within a geographical area to facilitate handovers.*
- *MIIS includes support for various Information Elements (IEs). IEs provide information that is essential for a handover module to make intelligent handover decision.*

DHCP issues from IEEE802.21 Specification

- *IEEE802.21 Information Service is composed of schemas structures.*
 - *A schema defines structure of information. A schema is used in the 802.21 information service to define the structure of each information element as well as the relationship among different information elements supported. The MIIS schema is classified into two major categories.*
- *To use Information Service, IS Server locations must be discovered by MN.*
 - *DHCP was decided as a candidate mechanism within IEEE802.21 specification. (IEEE P802.21/D00.05 @ 06 January 802.21 meeting)*

Proposed solutions (cont'd)

- *MIIS Location Discovery Option*
 - *Several sub-options:*
 - *IS Server IPv4 Address sub-option (mandatory)*
 - *IS Server FQDN sub-option (optional)*
 - *IS Server Schema sub-option (optional)*

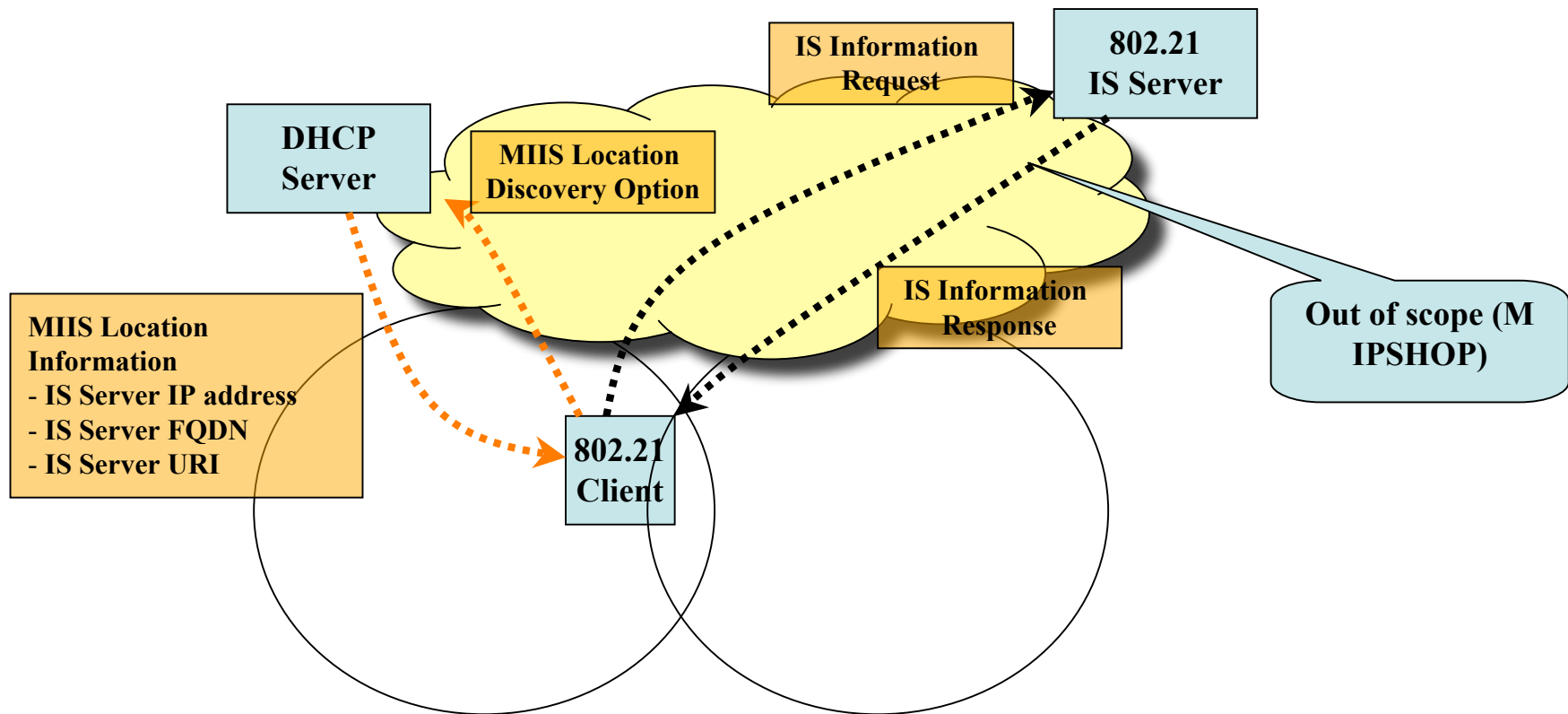
Code	Len	MIIS Location Discovery Field					
+	+	+	+	+	+	+	+
TBD	N	i1	i2	i3	i4	...	iN
+	+	+	+	+	+	+	+

SubOpt	Len	IS Server IPv4 Address List					
+	+	+	+	+	+	+	+
1	N	a1	a2	a3	a4	...	
+	+	+	+	+	+	+	+

SubOpt	Len	IS Server FQDN List					
+	+	+	+	+	+	+	+
2	N	b1	b2	b3	b4	...	
+	+	+	+	+	+	+	+

SubOpt	Len	IS Server Schema URI					
+	+	+	+	+	+	+	+
3	N	IS Server Schema URI					
+	+	+	+	+	+	+	+

Proposed solutions



Change log from an initial versions following the DHC folks voices

- *Changed option format as sub-options*
 - *enc (encoding byte) was used in the initial version*
 - *Thanks to David, Ted and Andre for their input*
- *Changed Schema URI as a single field*
 - *Not exceed 255 bytes*
 - *A single URI would be favorable for IEEE802.21 standard*

Moving forward

- *So far, DHCPv4 is only defined.*
 - *DHCPv6 will have the same option format.*
 - *Either merged document or separated one following the DHC consensus.*
- *IEEE802.21 already decided DHCP as one of candidate mechanism for discovering IS Server.*
 - *IEEE P802.21/D00.05*
 - *Draft availability via MIPSHOP WG Chair Request*
 - *<http://www1.ietf.org/mail-archive/web/mipshop/current/msg02410.html>*
- *Accepted it as an DHC WG Item ?*