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KDC Server Address Sub-option

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Abstract

This document defines a new sub-option for the CableLabs Client Configuration (CCC) DHCP option code for conveying the network address of the Key Distribution Center (KDC) server.

1. Introduction

The need for a CCC DHCP Option code is described in [1]. The CCC DHCP option code will be used to address specific needs of CableLabs client devices during their configuration processes. This document proposes a sub-option for the CCC DHCP option.

Configuration of a class of CableLabs client devices described in [2] requires a DHCP sub-option to provide the client with the address of the cable operator's KDC server. This document proposes an additional sub-option for use with CableLabs client devices. The sub-option encodes an identifier of the network address for the Key Distribution Center server with which the CableLabs client device must exchange security information.

CableLabs plans to assign sub-option code ranges according to CableLabs projects. The range (51 - 100) is assigned to the CableHome project. Use of the initial value of this range is specified in [2].

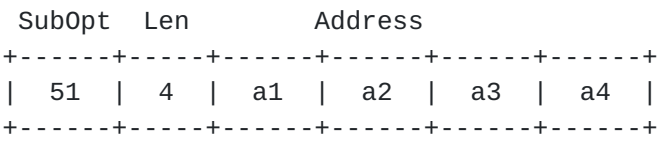
The key words "MUST", "MUST NOT", "SHOULD", "SHOULD NOT" and "MAY" in this document are to be interpreted as described in RFC 2119 [3].

2. Key Distribution Center IP Address Sub-option

The CableHome 1.0 specification [2] specifies the Key Distribution Center network address encoding as a sub-option of the CCC DHCP Option code. This field is used to inform the client device of the network address of the Key Distribution Center server.

The encoding of sub-option 51 will adhere to the format of an IPv4 address using the default port. The sub-option length MUST be 4. The length octet MUST be followed by 4 octets of IPv4 address.

The KDC Server sub-option is coded as follows:



3. Security Considerations

This document relies upon the DHCP protocol [4] for authentication and security, i.e., it does not provide security in excess of what DHCP is (or will be) providing. It does not expose any security threats beyond what is currently exposed by other DHCP options.

4. IANA Considerations

IANA has assigned a value of 51 for the CableLabs Client Configuration (CCC) sub-option code described in [1] and referred to in this document.

5. Normative References

[1] "DHCP Option for CableLabs Client Configuration draft-ietf-dhc-packetcable-03", IETF, July 2002.

[2] "CableHome 1.0 Specification SP-CH1.0-I02-020920", CableLabs, September 2002, http://www.cablelabs.com/cablehome/specifications

[3] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[4] Droms, R., "Dynamic Host Configuration Protocol", RFC 2131, March 1997.

6. Authors' Addresses

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