

The Migration Agent List Option for DHCP
[<draft-ietf-dhc-migagntlist-00.txt>](#)

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This document is a submission to the Dynamic Host Configuration Working Group of the Internet Engineering Task Force (IETF). Comments should be submitted to the dhcp-v4@bucknell.edu mailing list.

Abstract

This document defines a new DHCP option for delivering configuration information to hosts utilizing the Compatibility Mode Driver (CMD) provided with Novell's NetWare 5. This option is passed from the DHCP server to the DHCP Client to provide the addresses of one or more Migration Agents along with their CMD network number.

Introduction

The Dynamic Host Configuration Protocol (DHCP)[[1](#)] provides a framework for passing configuration information to hosts on a TCP/IP network. The Compatibility Mode Driver (CMD) provided with NetWare 5 facilitates smooth migration of networks from IPX and NetWare/IP, to Pure IP. This component provides the necessary connectivity for IPX Client/Server applications to communicate with nodes that connect to the IP internet. It also allows IPX Client/Server applications to run on IP Nodes.

Connectivity between IPX Nodes and IP Nodes is achieved through the

use of gateways called Migration Agents.

This document describes a DHCP option that carries addresses of one or more Migration Agents along with their CMD Network number. The addresses of Migration Agents are required by other Migration Agents to discover new IPX Nodes.

Definitions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY" and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [3].

This document also uses the following terms:

"DHCP client"

DHCP client or "client" is an Internet host using DHCP to obtain configuration parameters such as a network address.

"DHCP server"

A DHCP server or "server" is an Internet host that returns configuration parameters to DHCP clients.

Migration Agent List Option Format

The code for this option is TBD. The minimum length specified in the `æLenæ` field is 8 bytes, and this length MUST be a multiple of 8. This option can contain addresses of multiple migration agents along with their CMD Network number. The first four bytes specifies the IP address (in hexadecimal format) of the Migration Agent, and the next four bytes specifies the CMD Network number (in hexadecimal format) of the Migration Agent.

Code	Len	IP Address				CMD Network Number				
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+										
TBD 08 a1 a2 a3 a4 n1 n2 n3 n4										
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+										

In the above example, (0xa1a2a3a4) specifies the IP address of the Migration Agent and (0xn1n2n3n4) specifies the CMD Network number of the Migration Agent.

DHCP Client Behavior

The DHCP client will use this option to get the IP addresses of all the Migration Agents in the CMD network in which the client is present.

Security Considerations

DHCP currently provides no authentication or security mechanisms. Potential exposures to attack are discussed in [section 7](#) of the DHCP protocol specification [\[1\]](#). In particular, these DHCP options allow an unauthorized DHCP server to misdirect any client to a non existent Migration Agent.

References

- [1] Droms, R., "Dynamic Host Configuration Protocol", [RFC 2131](#), March 1997.
- [2] Alexander, S. and Droms, R., "DHCP Options and BOOTP Vendor Extensions", [RFC 2132](#), March 1997.
- [3] Bradner, S., "Key words for use in RFCs to indicate requirement levels", [RFC 2119](#), March 1997.

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Expiration

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