

The Named Pool Request Option for DHCP

<[draft-ietf-dhc-namedpool-00.txt](#)>

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1. Abstract

This option is used by a DHCP client to optionally identify the specific named pool from which it should be assigned an IP address. The information contained in this option is an ASCII text object that represents the named pool from which the DHCP server assign an IP address to the DHCP client.

2. Definitions

Throughout this document, the words that are used to define the significance of particular requirements are capitalized. These words are:

- o "MUST"

This word or the adjective "REQUIRED" means that the item is an absolute requirement of this specification.

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- o "MUST NOT"

This phrase means that the item is an absolute prohibition of this specification.

- o "SHOULD"

This word or the adjective "RECOMMENDED" means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighed before choosing a different course.

- o "SHOULD NOT"

This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.

- o "MAY"

This word or the adjective "OPTIONAL" means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.

This document also uses the following terms:

- o "DHCP client"

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

- o "DHCP server"

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

3. Named Pool Information

This option is used by a DHCP client to optionally identify the specific named pool from which it should be assigned an IP address. The information contained in

this option is an ASCII text object that represents the named pool from which the DHCP server assign an IP address to the DHCP client.

DHCP administrators MAY assign specific names to IP address pools on a DHCP server. For example, pools may be established for various departments or network segments. A DHCP client MAY then be configured to request an address from a specific named pool. A DHCP server SHOULD assign an address from the requested named pool to the DHCP client.

Servers not equipped to interpret the named pool specified by a client MUST ignore it. Otherwise, DHCP servers SHOULD respond with an IP address from the pool corresponding to the named pool specified by the DHCP client. If the DHCP server returns no address due to a named pool's address range being depleted, the DHCP client MAY resubmit another request with a different named pool name.

Clients which do not which do not request a named pool SHOULD be treated in a manner consistent with DHCP server configuration. A DHCP server MAY be configured to provide only named pool addresses, in which case a client requesting an address without using the named pool option from a DHCP server which supports solely this option MUST be denied an address. A DHCP server MAY be configured to automatically rotor to an alternative pool. The DHCP server MAY then assign an address from this alternative pool.

The code for this option is TBD. The minimum length for this option is two.

| Code | Len | text1 |
|---------|---------|------------------|
| +-----+ | +-----+ | +-----+ |
| TBD | N | named_pool ... |
| +-----+ | +-----+ | +-----+ |

Security Considerations

Security issues are not discussed in this document.

References

[RFC2131] Droms, R., "Dynamic Host Configuration Protocol", [RFC 2131](#), March 1997.

[RFC2132] S. Alexander, R. Droms, "DHCP Options and BOOTP Vendor Extensions"

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