

**DSTM Ports Option for DHCPv6**  
**draft-ietf-dhc-dhcpv6-opt-dstm-ports-01.txt**

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Abstract

The DSTM Ports Option provides DSTM (Dual Stack Transition Mechanism) configuration information to DHCPv6 hosts.

**1. Introduction**

This document describes the Ports Option for DHCPv6 [[2](#)] that provide information for hosts using the "Dual Stack Transition Mechanism" (DSTM) [[3](#)].

**2. Requirements**

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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](#) [1].

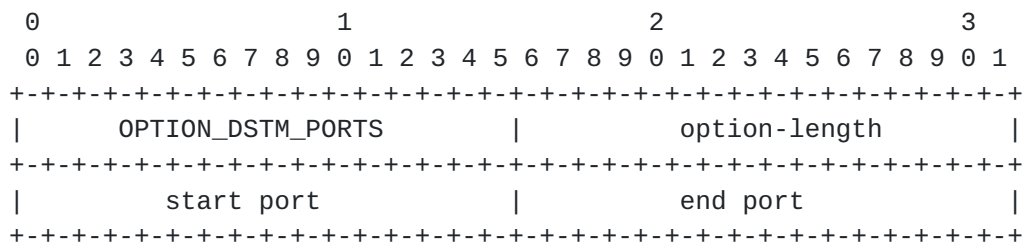
### 3. Terminology

This document uses terminology specific to IPv6 and DHCPv6 as defined in section "Terminology" of the DHCPv6 specification.

### 4. DSTM Ports Option

The DSTM Ports option carries a port range that is to be used for the associated IPv4-mapped IPv6 address in an IA\_DSTM option [5].

The format of the DSTM Ports option is:



option-code: OPTION\_DSTM\_PORTS (TBD)

option-length: 4

start port: The start port number for the associated IPv4-mapped IPv6 address.

end port: The end port number for the associated IPv4-mapped IPv6 address.

A DSTM Ports option MAY be encapsulated in an IA\_DSTM option [5] to specify the port range associated with the IPv4-mapped IPv6 address.

A DSTM Ports option MUST NOT be used except when encapsulated in an IA\_DSTM option [5].

### 5. Appearance of these options

The DSTM Ports option MUST only appear as an encapsulated option in an IA\_DSTM option [5].

### 6. Security Considerations

The DSTM Ports option may be used by an intruder DHCP server to

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assign an invalid port range to a DHCP client in a denial of service attack.

To avoid this security hazard, a DHCP client MUST use authenticated DHCP to confirm that it is exchanging the DSTM options with an authorized DHCP server.

## 7. IANA Considerations

IANA is requested to assign an option code to this option from the option-code space defined in section "DHCP Option" of the DHCPv6 specification [2].

## References

- [1] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [2] Bound, J., Carney, M., Perkins, C., Lemon, T., Volz, B. and R. Droms (ed.), "Dynamic Host Configuration Protocol for IPv6 (DHCPv6)", [draft-ietf-dhc-dhcpv6-26](#) (work in progress), June 2002.
- [3] Bound, J., "Dual Stack Transition Mechanism (DSTM)", [draft-ietf-ngtrans-dstm-07](#) (work in progress), February 2002.
- [4] Hinden, R. and S. Deering, "IP Version 6 Addressing Architecture", [RFC 2373](#), July 1998.
- [5] Volz, B. et al., "DSTM Options for DHCPv6", [draft-ietf-dhc-dhcpv6-opt-dstm-01.txt](#), (work in progress), April 2002.

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#### Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.

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