

## IPv6 Packet

0	8	16
<i>VER:6</i>	<i>TRFC</i>	<i>FLOW LABEL</i>
<i>PL:60</i>	<i>NEXT:0x3a</i>	<i>HOP LIMIT:255</i>
<i>SRC IP: FE80::1</i>		
<i>DST IP: FF02::1</i>		

## MTU Option

0	8	16
<i>TYPE: 0x05</i>	<i>LNGTH: 0x01</i>	<i>RESERVED1</i>
<i>MTU: 1500</i>		

## Prefix Option

0	8	16	
<i>TYPE: 0x03</i>	<i>LENGTH: 0x04</i>	<i>PREFIX LEN: 64</i>	<i>RESERVED1</i>
<i>VALID LIFETIME: 2592000</i>			
<i>PREFERRED LIFETIME: 604800</i>			
<i>RESERVED2</i>			
<i>PREFIX: 2001:DB8:ACAD:1::</i>			

## Router Advertisement Message

0	8	16
<i>TYPE: 0x86</i>	<i>CODE: 0x00</i>	<i>CHECKSUM: 0x0000</i>
<i>Hop Limit: 0x40</i>	<i>RESERVED</i>	<i>Router Lifetime: 0x0708</i>
<i>Reachable Time: 0x00000000</i>		
<i>Retrans Timer: 0x00000000</i>		

## Link Layer Option

0	8	16
TYPE: 0x01	LENGTH: 0x01	
LINK LAYER ADDRESS: 0060.3E5A.5801		

## ICMPv6 Neighbor Solicitation Message

0	8	16
TYPE: 0x87	CODE: 0x00	CHECKSUM
R	S	O
Reserved		
Target Address: 2001:DB8:ACAD:1::B		

## ICMPv6 Neighbor Advertisement Message

0	8	16
TYPE: 0x88	CODE: 0x00	CHECKSUM
R	S	O
Reserved		
Target Address: 2001:DB8:ACAD:1::B		

## ICMPv6 Echo Message

0	8	16
TYPE: 0x80	CODE: 0x00	CHECKSUM: 0x0000
IDENTIFIER: 2		SEQUENCE NUMBER: 1

## ICMPv6 Echo Message 2

0	8	16
TYPE: 0x81	CODE: 0x00	CHECKSUM: 0x0000
IDENTIFIER: 2		SEQUENCE NUMBER: 1

## R0#show ipv6 eighbors

<i>IPv6 Address</i>	<i>Age</i>	<i>Link-layer Addr</i>	<i>State</i>	<i>Interface</i>
<i>2001:DB8:ACAD:1::A</i>	<i>0</i>	<i>0090.2B89.2D86</i>	<i>REACH</i>	<i>Gig0/0</i>
<i>2001:DB8:ACAD:2::A</i>	<i>0</i>	<i>000A.41E4.42D4</i>	<i>REACH</i>	<i>Gig0/1</i>
<i>FE80::20A:41FF:FEE4:42D4</i>	<i>0</i>	<i>000A.41E4.42D4</i>	<i>REACH</i>	<i>Gig0/1</i>
<i>FE80::290:2BFF:FE89:2D86</i>	<i>0</i>	<i>0090.2B89.2D86</i>	<i>REACH</i>	<i>Gig0/0</i>

## 1 R0# show ipv6 neighbors 2

<i>IPv6 Address</i>	<i>Age</i>	<i>Link-layer Addr</i>	<i>State</i>	<i>Interface</i>
<i>2001:DB8:ACAD:1::A</i>	<i>28</i>	<i>0090.2B89.2D86</i>	<i>REACH</i>	<i>Gig0/0</i>
<i>2001:DB8:ACAD:2::B</i>	<i>0</i>	<i>000A.41E4.42D4</i>	<i>REACH</i>	<i>Gig0/1</i>
<i>2001:DB8:ACAD:2::A</i>	<i>28</i>	<i>000A.41E4.42D4</i>	<i>REACH</i>	<i>Gig0/1</i>
<i>FE80::20A:41FF:FEE4:42D4</i>	<i>28</i>	<i>000A.41E4.42D4</i>	<i>REACH</i>	<i>Gig0/1</i>
<i>FE80::290:2BFF:FE89:2D86</i>	<i>28</i>	<i>0090.2B89.2D86</i>	<i>REACH</i>	<i>Gig0/0</i>