
Posted by [maxx](#) on Wed, 04 Nov 2009 13:53:26 GMT
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- 1500.

Frag needed and DF set (mtu = 1480)

"unreachable - need to frag (mtu 1500)".

```
13: veth102.0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1540 qdisc noqueue  
    inet 192.168.11.1/30 scope global veth102.0
```

```
7: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1540 qdisc noqueue  
    inet 192.168.11.2/30 brd 192.168.11.3 scope global eth0  
11: tun0@NONE: <POINTOPOINT,NOARP,UP,LOWER_UP> mtu 1520 qdisc noqueue  
    link/ipip 192.168.11.2 peer 192.168.22.150  
    inet 192.168.100.13 peer 192.168.100.14/30 brd 192.168.100.15 scope global tun0
```

```
[root@vr102 /]# ip ro  
192.168.1.0/24 via 192.168.100.14 dev tun0  
default via 192.168.11.1 dev eth0
```

```
[root@vr102 /]# ping -s 1452 -M do -I 192.168.2.1 192.168.1.1
```

```
[root@vr102 /]# tcpdump -nv -i tun0
```

```
tcpdump: listening on tun0, link-type RAW (Raw IP), capture size 96 bytes  
04:43:08.156747 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1), length: 1480)  
192.168.2.1 > 192.168.1.1: ICMP echo request, id 17231, seq 1, length 1460  
04:43:08.160526 IP (tos 0x0, ttl 255, id 45198, offset 0, flags [DF], proto: ICMP (1), length: 1480)  
192.168.1.1 > 192.168.2.1: ICMP echo reply, id 17231, seq 1, length 1460  
...
```

```
[root@vr102 /]# tcpdump -nv -i eth0
```

```
tcpdump: listening on eth0, link-type EN10MB (Ethernet), capture size 96 bytes
04:43:08.156767 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: IPIP (4), length: 1500)
192.168.11.2 > 192.168.22.150: IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1),
length: 1480) 192.168.2.1 > 192.168.1.1: ICMP echo request, id 17231, seq 1, length 1460
04:43:08.160526 IP (tos 0x0, ttl 252, id 45199, offset 0, flags [none], proto: IPIP (4), length: 1500)
192.168.22.150 > 192.168.11.2: IP (tos 0x0, ttl 255, id 45198, offset 0, flags [DF], proto: ICMP (1),
length: 1480) 192.168.1.1 > 192.168.2.1: ICMP echo reply, id 17231, seq 1, length 1460
...
```

veth102.0.

```
[root@vr102 /]# ping -s 1453 -M do -I 192.168.2.1 192.168.1.1
```

```
[root@vr102 /]# tcpdump -nv -i tun0
04:43:15.777312 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1), length: 1481)
192.168.2.1 > 192.168.1.1: ICMP echo request, id 17487, seq 1, length 1461
04:43:16.777686 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1), length: 1481)
192.168.2.1 > 192.168.1.1: ICMP echo request, id 17487, seq 2, length 1461
```

```
[root@vr102 /]# tcpdump -nv -i eth0
04:43:15.777321 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: IPIP (4), length: 1501)
192.168.11.2 > 192.168.22.150: IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1),
length: 1481) 192.168.2.1 > 192.168.1.1: ICMP echo request, id 17487, seq 1, length 1461
04:43:15.777354 IP (tos 0xc0, ttl 64, id 62606, offset 0, flags [none], proto: ICMP (1), length: 576)
192.168.11.1 > 192.168.11.2: ICMP 192.168.22.150 unreachable - need to frag (mtu 1500),
length 556
      IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: IPIP (4), length: 1501) 192.168.11.2 >
192.168.22.150: IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto: ICMP (1), length: 1481)
192.168.2.1 > 192.168.1.1: ICMP echo request, id 17487, seq 1, length 1461[[icmp]
```

192.168.11.1 (HN).

```
04:43:15.777354 IP (tos 0xc0, ttl 64, id 62606, offset 0, flags [none], proto: ICMP (1), length: 576)
192.168.11.1 > 192.168.11.2: ICMP 192.168.22.150 unreachable - need to frag (mtu 1500),
```

length 556

From 192.168.2.1 icmp_seq=3 Frag needed and DF set (mtu = 1480)

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...