

RE: odd sub net behaviour

Source:

http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.network_web/2006-12/msg00614.html

- *From:* HS <HS@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 18 Dec 2006 14:27:00 -0800
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It sounds like you already know what you're doing but maybe don't see the difference.

The 0.0.0.0 is a default route added by a routing protocol telling the machine the way to get to 192.168.157 is via 192.168.1.1. RIP can do this.

"bof" wrote:

Anyone know of a fix for the following subnet behaviour in Windows XP Pro?

I have a gateway router on 192.168.1.1 and a PC on 192.168.1.157 with a subnet mask of 255.255.255.128.

Initially when I configure the .128 subnet mask I cannot ping to external addresses, which is as I'd expect.

If I subsequently reboot the PC, or if I disable and re-enable the NIC I can now ping external IP addresses through the router, which I don't expect to be able to do, and seems wrong that I can access the router on 192.168.1.1 when it's on a different subnet.

The issue seems to be that following a reboot or enable/disable of the NIC a route is added to the routing table (see below).

So in summary; initially after changing to a .128 subnet routing is as expected, after a PC reboot routing appears to behave incorrectly. The behaviour is the same on two independent installs of XP Pro, on different hardware platforms with two different NICs.

Following is the route print /immediately after/ changing the net mask to .128, when I can't ping external IPs as expected:

Active Routes:
Network Destination Netmask Gateway Interface

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```
Metric
127.0.0.0 255.0.0.0 127.0.0.1 127.0.0.1 1
192.168.1.128 255.255.255.128 192.168.1.157 192.168.1.157 20
192.168.1.157 255.255.255.255 127.0.0.1 127.0.0.1 20
192.168.1.255 255.255.255.255 192.168.1.157 192.168.1.157 20
224.0.0.0 240.0.0.0 192.168.1.157 192.168.1.157 20
255.255.255.255 255.255.255.255 192.168.1.157 192.168.1.157 1
255.255.255.255 255.255.255.255 192.168.1.157 3 1
```

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Persistent Routes:

None

Following is the route print /after/ disabling and then re-enabling the NIC (no other change), when I can ping external IPs, where the PC appears happy to route via .157 / .1 :

Active Routes:

```
Network Destination Netmask Gateway Interface
Metric
0.0.0.0 0.0.0.0 192.168.1.1 192.168.1.157 20
127.0.0.0 255.0.0.0 127.0.0.1 127.0.0.1 1
192.168.1.128 255.255.255.128 192.168.1.157 192.168.1.157 20
192.168.1.157 255.255.255.255 127.0.0.1 127.0.0.1 20
192.168.1.255 255.255.255.255 192.168.1.157 192.168.1.157 20
224.0.0.0 240.0.0.0 192.168.1.157 192.168.1.157 20
255.255.255.255 255.255.255.255 192.168.1.157 192.168.1.157 1
255.255.255.255 255.255.255.255 192.168.1.157 3 1
```

Default Gateway: 192.168.1.1

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Persistent Routes:

None

Apologies if you've already seen this in the .general newsgroup, I'd not spotted this group when I initially posted.

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