
Subject: [PATCH 3/4] net ipv4: When possible test for IFF_LOOPBACK and not dev == loopback_dev

Posted by [ebiederm](#) on Wed, 26 Sep 2007 23:58:21 GMT

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Now that multiple loopback devices are becoming possible it makes the code a little cleaner and more maintainable to test if a device is th a loopback device by testing dev->flags & IFF_LOOPBACK instead of dev == loopback_dev.

Signed-off-by: Eric W. Biederman <ebiederm@xmission.com>

```
---
net/ipv4/devinet.c      |  4 ++--
net/ipv4/ipconfig.c     | 10 ++++++---
net/ipv4/ipvs/ip_vs_core.c |  2 +-
3 files changed, 10 insertions(+), 6 deletions(-)

diff --git a/net/ipv4/devinet.c b/net/ipv4/devinet.c
index e7f2b02..55d199e 100644
--- a/net/ipv4/devinet.c
+++ b/net/ipv4/devinet.c
@@ -1059,7 +1059,7 @@ static int inetdev_event(struct notifier_block *this, unsigned long event,
    in_dev = inetdev_init(dev);
    if (!in_dev)
        return notifier_from_errno(-ENOMEM);
-   if (dev == loopback_dev) {
+   if (dev->flags & IFF_LOOPBACK) {
        IN_DEV_CONF_SET(in_dev, NOXFRM, 1);
        IN_DEV_CONF_SET(in_dev, NOPOLICY, 1);
    }
@@ -1075,7 +1075,7 @@ static int inetdev_event(struct notifier_block *this, unsigned long event,
    case NETDEV_UP:
        if (dev->mtu < 68)
            break;
-   if (dev == loopback_dev) {
+   if (dev->flags & IFF_LOOPBACK) {
        struct in_ifaddr *ifa;
        if ((ifa = inet_alloc_ifa()) != NULL) {
            ifa->ifa_local =
diff --git a/net/ipv4/ipconfig.c b/net/ipv4/ipconfig.c
index 2d2e0cd..af5d5b3 100644
--- a/net/ipv4/ipconfig.c
+++ b/net/ipv4/ipconfig.c
@@ -190,11 +190,15 @@ static int __init ic_open_devs(void)
    rtnl_lock();

    /* bring loopback device up first */
-   if (dev_change_flags(loopback_dev, loopback_dev->flags | IFF_UP) < 0)
```

```

- printk(KERN_ERR "IP-Config: Failed to open %s\n", loopback_dev->name);
+ for_each_netdev(&init_net, dev) {
+ if (!(dev->flags & IFF_LOOPBACK))
+ continue;
+ if (dev_change_flags(dev, dev->flags | IFF_UP) < 0)
+ printk(KERN_ERR "IP-Config: Failed to open %s\n", dev->name);
+ }

for_each_netdev(&init_net, dev) {
- if (dev == loopback_dev)
+ if (dev->flags & IFF_LOOPBACK)
    continue;
    if (user_dev_name[0] ? !strcmp(dev->name, user_dev_name) :
        (!(dev->flags & IFF_LOOPBACK) &&
diff --git a/net/ipv4/ipvs/ip_vs_core.c b/net/ipv4/ipvs/ip_vs_core.c
index 7450326..fbca2a2 100644
--- a/net/ipv4/ipvs/ip_vs_core.c
+++ b/net/ipv4/ipvs/ip_vs_core.c
@@ -961,7 +961,7 @@ ip_vs_in(unsigned int hooknum, struct sk_buff **pskb,
 * ... don't know why 1st test DOES NOT include 2nd (?)
 */
if (unlikely(skb->pkt_type != PACKET_HOST
- || skb->dev == loopback_dev || skb->sk)) {
+ || skb->dev->flags & IFF_LOOPBACK || skb->sk)) {
    IP_VS_DBG(12, "packet type=%d proto=%d daddr=%d.%d.%d.%d ignored\n",
        skb->pkt_type,
        ip_hdr(skb)->protocol,
--
1.5.3.rc6.17.g1911

```

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