Subject: [PATCH] Virtual ethernet device (v.4)
Posted by Pavel Emelianov on Thu, 19 Jul 2007 09:24:55 GMT

Veth stands for Virtual ETHernet. It is a simple tunnel driver
that works at the link layer and looks like a pair of ethernet
devices interconnected with each other.

Mainly it allows to communicate between network namespaces but
it can be used as is as well. E.g. one may join to bridged
networking segments together.

Eric recently sent a similar driver called etun with the sysfs
interface. This implementation uses another interface - the
RTM_NRELINK message introduced by Patric.

The newlink callback is organized that way to make it easy to
create the peer device in the separate namespace when we have
them in kernel.

Many thanks to Patrick for reviewing the patches and his advises
on how to make driver cleaner.

Changes from v.3:
 * Reserved place for struct ifinfomsg in IFLA_INFO_DATA part
   of the packet. This is not used yet, but may be in the
   future.

Changes from v.2.1:
 * Made the generic routine for link creation to be used
   by veth driver, any other tunnel driver that needs to
   create several devices at once and rtnl_newlink() code.

Changes from v.2:
 * Rebase over latest netdev tree. No actual changes;
 * Small code rework.

Changes from v.1:
 * Per-cpu statistics;
 * Standard convention for nla policy names;
 * Module alias added;
 * Xmit function fixes noticed by Patric;
 * Code cleanup.

The patch for an ip utility is also provided.

Signed-off-by: Pavel Emelianov <xemul@openvz.org>
Acked-by: Patrick McHardy <kaber@trash.net>