Subject: [PATCH] Module for ip utility to support veth device (v.2.1)
Posted by Pavel Emelianov on Wed, 11 Jul 2007 09:33:55 GMT
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The usage is
ip link add [name] type veth [peer <name>] [mac <mac>] [peer_mac <mac>]

This version doesn't include the fix for ip/iplink.c as Patrick
said that he had included it into his patches already.

Signed-off-by: Pavel Emelianov <xemul@openvz.org>

```
 Makefile    |    6 +++-
 link_veth.c |   89 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 veth.h      |   14 +++++++++
 3 files changed, 108 insertions(+), 1 deletion(-)

diff --git a/ip/Makefile b/ip/Makefile
index 9a5bfe3..b46bce3 100644
--- a/ip/Makefile
+++ b/ip/Makefile
@@ -8,8 +8,9 @@ RTMONOBJ=rtmon.o
 ALLOBJ=$(IPOBJ) $(RTMONOBJ)
 SCRIPTS=ifcfg rtpr routel routef
 TARGETS=ip rtmon
+LIBS=link_veth.so

-all: $(TARGETS) $(SCRIPTS)
+all: $(TARGETS) $(SCRIPTS) $(LIBS)

 ip: $(IPOBJ) $(LIBNETLINK) $(LIBUTIL)

@@ -24,3 +25,6 @@ clean:

 LDLIBS += -ldl
 LDFLAGS += -Wl,-export-dynamic
+
+%.so: %.c
+ $(CC) $(CFLAGS) -shared $< -o $@
diff --git a/ip/link_veth.c b/ip/link_veth.c
new file mode 100644
index 0000000..7760684
--- /dev/null
+++ b/ip/link_veth.c
@@ -0,0 +1,89 @@
+/*
```

```
+ * link_veth.c veth driver module
+ *
+ *  This program is free software; you can redistribute it and/or
+ *  modify it under the terms of the GNU General Public License
+ *  as published by the Free Software Foundation; either version
+ *  2 of the License, or (at your option) any later version.
+ *
+ * Authors: Pavel Emelianov <xemul@openvz.org>
+ *
+ */
+
+#include <string.h>
+
+#include "utils.h"
+#include "ip_common.h"
+#include "veth.h"
+
+#define ETH_ALEN 6
+
+static void usage(void)
+{
+ printf("Usage: ip link add ... type veth "
+   "[peer <peer-name>] [mac <mac>] [peer_mac <mac>]\n");
+}
+
+static int veth_parse_opt(struct link_util *lu, int argc, char **argv,
+  struct nlmsghdr *hdr)
+{
+ __u8 mac[ETH_ALEN];
+
+ for (; argc != 0; argv++, argc--) {
+  if (strcmp(*argv, "peer") == 0) {
+   argv++;
+   argc--;
+   if (argc == 0) {
+    usage();
+    return -1;
+   }
+
+   addattr_l(hdr, 1024, VETH_INFO_PEER,
+     *argv, strlen(*argv));
+
+   continue;
+  }
+
+  if (strcmp(*argv, "mac") == 0) {
+   argv++;
+   argc--;
```

```
+   if (argc == 0) {
+    usage();
+    return -1;
+   }
+
+   if (hexstring_a2n(*argv, mac, sizeof(mac)) == NULL)
+    return -1;
+
+   addattr_l(hdr, 1024, VETH_INFO_MAC,
+     mac, ETH_ALEN);
+   continue;
+  }
+
+  if (strcmp(*argv, "peer_mac") == 0) {
+   argv++;
+   argc--;
+   if (argc == 0) {
+    usage();
+    return -1;
+   }
+
+   if (hexstring_a2n(*argv, mac, sizeof(mac)) == NULL)
+    return -1;
+
+   addattr_l(hdr, 1024, VETH_INFO_PEER_MAC,
+     mac, ETH_ALEN);
+   continue;
+  }
+
+  usage();
+  return -1;
+ }
+
+ return 0;
+}
+
+struct link_util veth_link_util = {
+ .id = "veth",
+ .parse_opt = veth_parse_opt,
+};
diff --git a/ip/veth.h b/ip/veth.h
new file mode 100644
index 0000000..b84a530
--- /dev/null
+++ b/ip/veth.h
@@ -0,0 +1,14 @@
+#ifndef __NET_VETH_H__
+#define __NET_VETH_H__
```

```
+
+enum {
+ VETH_INFO_UNSPEC,
+ VETH_INFO_MAC,
+ VETH_INFO_PEER,
+ VETH_INFO_PEER_MAC,
+
+ __VETH_INFO_MAX
+#define VETH_INFO_MAX (__VETH_INFO_MAX - 1)
+};
+
+#endif
```