
Subject: [PATCH 3/5] netns netfilter: per-netns arp_tables
Posted by [Alexey Dobriyan](#) on Thu, 24 Jan 2008 12:28:52 GMT
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- * Propagate netns from userspace.
- * arpt_register_table() registers table in supplied netns.

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```
include/linux/netfilter_arp/arp_tables.h | 3 +
net/ipv4/netfilter/arp_tables.c          | 55 ++++++
net/ipv4/netfilter/arptable_filter.c     | 2 -
3 files changed, 34 insertions(+), 26 deletions(-)
```

```
--- a/include/linux/netfilter_arp/arp_tables.h
+++ b/include/linux/netfilter_arp/arp_tables.h
@@ -271,7 +271,8 @@ struct arpt_error
     xt_register_target(tgt); })
#define arpt_unregister_target(tgt) xt_unregister_target(tgt)
```

```
-extern struct arpt_table *arpt_register_table(struct arpt_table *table,
+extern struct arpt_table *arpt_register_table(struct net *net,
+ struct arpt_table *table,
+ const struct arpt_replace *repl);
extern void arpt_unregister_table(struct arpt_table *table);
extern unsigned int arpt_do_table(struct sk_buff *skb,
```

```
--- a/net/ipv4/netfilter/arp_tables.c
+++ b/net/ipv4/netfilter/arp_tables.c
@@ -22,6 +22,7 @@
#include <linux/mutex.h>
#include <linux/err.h>
#include <net/compat.h>
+#include <net/sock.h>
#include <asm/uaccess.h>
```

```
#include <linux/netfilter/x_tables.h>
@@ -850,7 +851,7 @@ static int compat_table_info(const struct xt_table_info *info,
}
#endif
```

```
-static int get_info(void __user *user, int *len, int compat)
+static int get_info(struct net *net, void __user *user, int *len, int compat)
{
    char name[ARPT_TABLE_MAXNAMELEN];
    struct arpt_table *t;
@@ -870,7 +871,7 @@ static int get_info(void __user *user, int *len, int compat)
    if (compat)
```

```

    xt_compat_lock(NF_ARP);
#endif
- t = try_then_request_module(xt_find_table_lock(&init_net, NF_ARP, name),
+ t = try_then_request_module(xt_find_table_lock(net, NF_ARP, name),
    "arptable_%s", name);
    if (t && !IS_ERR(t)) {
        struct arpt_getinfo info;
@@ -908,7 +909,8 @@ static int get_info(void __user *user, int *len, int compat)
    return ret;
}

-static int get_entries(struct arpt_get_entries __user *uptr, int *len)
+static int get_entries(struct net *net, struct arpt_get_entries __user *uptr,
+    int *len)
{
    int ret;
    struct arpt_get_entries get;
@@ -926,7 +928,7 @@ static int get_entries(struct arpt_get_entries __user *uptr, int *len)
    return -EINVAL;
}

- t = xt_find_table_lock(&init_net, NF_ARP, get.name);
+ t = xt_find_table_lock(net, NF_ARP, get.name);
    if (t && !IS_ERR(t)) {
        struct xt_table_info *private = t->private;
        duprintf("t->private->number = %u\n",
@@ -947,7 +949,8 @@ static int get_entries(struct arpt_get_entries __user *uptr, int *len)
    return ret;
}

-static int __do_replace(const char *name, unsigned int valid_hooks,
+static int __do_replace(struct net *net, const char *name,
+    unsigned int valid_hooks,
    struct xt_table_info *newinfo,
    unsigned int num_counters,
    void __user *counters_ptr)
@@ -966,7 +969,7 @@ static int __do_replace(const char *name, unsigned int valid_hooks,
    goto out;
}

- t = try_then_request_module(xt_find_table_lock(&init_net, NF_ARP, name),
+ t = try_then_request_module(xt_find_table_lock(net, NF_ARP, name),
    "arptable_%s", name);
    if (!t || IS_ERR(t)) {
        ret = t ? PTR_ERR(t) : -ENOENT;
@@ -1019,7 +1022,7 @@ static int __do_replace(const char *name, unsigned int valid_hooks,
    return ret;
}

```

```

-static int do_replace(void __user *user, unsigned int len)
+static int do_replace(struct net *net, void __user *user, unsigned int len)
{
    int ret;
    struct arpt_replace tmp;
@@ -1053,7 +1056,7 @@ static int do_replace(void __user *user, unsigned int len)

    duprintf("arp_tables: Translated table\n");

- ret = __do_replace(tmp.name, tmp.valid_hooks, newinfo,
+ ret = __do_replace(net, tmp.name, tmp.valid_hooks, newinfo,
    tmp.num_counters, tmp.counters);
    if (ret)
        goto free_newinfo_untrans;
@@ -1080,7 +1083,8 @@ static inline int add_counter_to_entry(struct arpt_entry *e,
    return 0;
}

-static int do_add_counters(void __user *user, unsigned int len, int compat)
+static int do_add_counters(struct net *net, void __user *user, unsigned int len,
+    int compat)
{
    unsigned int i;
    struct xt_counters_info tmp;
@@ -1132,7 +1136,7 @@ static int do_add_counters(void __user *user, unsigned int len, int
compat)
    goto free;
}

- t = xt_find_table_lock(&init_net, NF_ARP, name);
+ t = xt_find_table_lock(net, NF_ARP, name);
    if (!t || IS_ERR(t)) {
        ret = t ? PTR_ERR(t) : -ENOENT;
        goto free;
@@ -1435,7 +1439,8 @@ struct compat_arpt_replace {
    struct compat_arpt_entry entries[0];
};

-static int compat_do_replace(void __user *user, unsigned int len)
+static int compat_do_replace(struct net *net, void __user *user,
+    unsigned int len)
{
    int ret;
    struct compat_arpt_replace tmp;
@@ -1471,7 +1476,7 @@ static int compat_do_replace(void __user *user, unsigned int len)

    duprintf("compat_do_replace: Translated table\n");

```

```

- ret = __do_replace(tmp.name, tmp.valid_hooks, newinfo,
+ ret = __do_replace(net, tmp.name, tmp.valid_hooks, newinfo,
    tmp.num_counters, compat_ptr(tmp.counters));
    if (ret)
        goto free_newinfo_untrans;
@@ -1494,11 +1499,11 @@ static int compat_do_arpt_set_ctl(struct sock *sk, int cmd, void
__user *user,

    switch (cmd) {
    case ARPT_SO_SET_REPLACE:
- ret = compat_do_replace(user, len);
+ ret = compat_do_replace(sk->sk_net, user, len);
        break;

    case ARPT_SO_SET_ADD_COUNTERS:
- ret = do_add_counters(user, len, 1);
+ ret = do_add_counters(sk->sk_net, user, len, 1);
        break;

    default:
@@ -1584,7 +1589,8 @@ struct compat_arpt_get_entries {
    struct compat_arpt_entry entrytable[0];
};

-static int compat_get_entries(struct compat_arpt_get_entries __user *uptr,
+static int compat_get_entries(struct net *net,
+    struct compat_arpt_get_entries __user *uptr,
    int *len)
{
    int ret;
@@ -1604,7 +1610,7 @@ static int compat_get_entries(struct compat_arpt_get_entries __user
*uptr,
}

xt_compat_lock(NF_ARP);
- t = xt_find_table_lock(&init_net, NF_ARP, get.name);
+ t = xt_find_table_lock(net, NF_ARP, get.name);
    if (t && !IS_ERR(t)) {
        struct xt_table_info *private = t->private;
        struct xt_table_info info;
@@ -1641,10 +1647,10 @@ static int compat_do_arpt_get_ctl(struct sock *sk, int cmd, void
__user *user,

    switch (cmd) {
    case ARPT_SO_GET_INFO:
- ret = get_info(user, len, 1);
+ ret = get_info(sk->sk_net, user, len, 1);

```

```

    break;
case ARPT_SO_GET_ENTRIES:
- ret = compat_get_entries(user, len);
+ ret = compat_get_entries(sk->sk_net, user, len);
    break;
default:
    ret = do_arpt_get_ctl(sk, cmd, user, len);
@@ -1662,11 +1668,11 @@ static int do_arpt_set_ctl(struct sock *sk, int cmd, void __user *user,
unsigned

    switch (cmd) {
    case ARPT_SO_SET_REPLACE:
- ret = do_replace(user, len);
+ ret = do_replace(sk->sk_net, user, len);
        break;

    case ARPT_SO_SET_ADD_COUNTERS:
- ret = do_add_counters(user, len, 0);
+ ret = do_add_counters(sk->sk_net, user, len, 0);
        break;

    default:
@@ -1686,11 +1692,11 @@ static int do_arpt_get_ctl(struct sock *sk, int cmd, void __user *user,
int *len

    switch (cmd) {
    case ARPT_SO_GET_INFO:
- ret = get_info(user, len, 0);
+ ret = get_info(sk->sk_net, user, len, 0);
        break;

    case ARPT_SO_GET_ENTRIES:
- ret = get_entries(user, len);
+ ret = get_entries(sk->sk_net, user, len);
        break;

    case ARPT_SO_GET_REVISION_TARGET: {
@@ -1719,7 +1725,8 @@ static int do_arpt_get_ctl(struct sock *sk, int cmd, void __user *user,
int *len
        return ret;
    }

-struct arpt_table *arpt_register_table(struct arpt_table *table,
+struct arpt_table *arpt_register_table(struct net *net,
+    struct arpt_table *table,
+    const struct arpt_replace *repl)
{
    int ret;

```

```

@@ -1749,7 +1756,7 @@ struct arpt_table *arpt_register_table(struct arpt_table *table,
    if (ret != 0)
        goto out_free;

- new_table = xt_register_table(&init_net, table, &bootstrap, newinfo);
+ new_table = xt_register_table(net, table, &bootstrap, newinfo);
    if (IS_ERR(new_table)) {
        ret = PTR_ERR(new_table);
        goto out_free;
--- a/net/ipv4/netfilter/arptable_filter.c
+++ b/net/ipv4/netfilter/arptable_filter.c
@@ -91,7 +91,7 @@ static int __init arptable_filter_init(void)
    int ret;

    /* Register table */
- packet_filter = arpt_register_table(&__packet_filter, &initial_table.repl);
+ packet_filter = arpt_register_table(&init_net, &__packet_filter, &initial_table.repl);
    if (IS_ERR(packet_filter))
        return PTR_ERR(packet_filter);

```
