
Subject: [PATCH (resubmit)][BRIDGE] Properly dereference the
br_should_route_hook

Posted by [Pavel Emelianov](#) on Tue, 27 Nov 2007 16:21:08 GMT

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This hook is protected with the RCU, so simple

```
if (br_should_route_hook)
    br_should_route_hook(...)
```

is not enough on some architectures.

Use the rcu_dereference/rcu_assign_pointer in this case.

Fixed Stephen's comment concerning using the typeof().

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

diff --git a/net/bridge/br_input.c b/net/bridge/br_input.c

index 3cedd4e..0ee79a7 100644

--- a/net/bridge/br_input.c

+++ b/net/bridge/br_input.c

@@ -122,6 +122,7 @@ static inline int is_link_local(const unsigned char *dest)

struct sk_buff *br_handle_frame(struct net_bridge_port *p, struct sk_buff *skb)

```
{
    const unsigned char *dest = eth_hdr(skb)->h_dest;
```

```
+ int (*rhook)(struct sk_buff *skb);
```

```
    if (!is_valid_ether_addr(eth_hdr(skb)->h_source))
```

```
        goto drop;
```

```
@@ -147,9 +148,9 @@ struct sk_buff *br_handle_frame(struct net_bridge_port *p, struct sk_buff
    *skb)
```

```
    switch (p->state) {
```

```
    case BR_STATE_FORWARDING:
```

```
-
```

```
- if (br_should_route_hook) {
```

```
- if (br_should_route_hook(skb))
```

```
+ rhook = rcu_dereference(br_should_route_hook);
```

```
+ if (rhook != NULL) {
```

```
+ if (rhook(skb))
```

```
    return skb;
```

```
    dest = eth_hdr(skb)->h_dest;
```

```
    }
```

diff --git a/net/bridge/netfilter/ebtable_broute.c b/net/bridge/netfilter/ebtable_broute.c

index e44519e..be6f186 100644

```
--- a/net/bridge/netfilter/ebtable_broute.c
+++ b/net/bridge/netfilter/ebtable_broute.c
@@ -70,13 +70,13 @@ static int __init ebtable_broute_init(void)
     if (ret < 0)
         return ret;
     /* see br_input.c */
-    br_should_route_hook = ebt_broute;
+    rcu_assign_pointer(br_should_route_hook, ebt_broute);
     return ret;
 }

static void __exit ebtable_broute_fini(void)
{
-    br_should_route_hook = NULL;
+    rcu_assign_pointer(br_should_route_hook, NULL);
    synchronize_net();
    ebt_unregister_table(&broute_table);
}
```
