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Subject: [PATCH] [NETFILTER] Consolidate nf\_sockopt and compat\_nf\_sockopt v2  
Posted by [Pavel Emelianov](#) on Tue, 06 Nov 2007 08:29:18 GMT  
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Both lookup the nf\_sockopt\_ops object to call the get/set callbacks from, but they perform it in a completely similar way.

Introduce the helper for finding the ops.

Ported at the top of today's net-2.6 tree to resolve conflict with the patch from Alexey Dobriyan.

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

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```
diff --git a/net/netfilter/nf_sockopt.c b/net/netfilter/nf_sockopt.c
index 2dfac32..87bc144 100644
--- a/net/netfilter/nf_sockopt.c
+++ b/net/netfilter/nf_sockopt.c
@@ -60,46 +60,57 @@ void nf_unregister_sockopt(struct nf_sockopt_ops *reg)
 }
 EXPORT_SYMBOL(nf_unregister_sockopt);

-/* Call get/setsockopt() */
-static int nf_sockopt(struct sock *sk, int pf, int val,
-    char __user *opt, int *len, int get)
+static struct nf_sockopt_ops *nf_sockopt_find(struct sock *sk, int pf,
+    int val, int get)
 {
     struct nf_sockopt_ops *ops;
-    int ret;

     if (sk->sk_net != &init_net)
-        return -ENOPROTOOPT;
+        return ERR_PTR(-ENOPROTOOPT);

     if (mutex_lock_interruptible(&nf_sockopt_mutex) != 0)
-        return -EINTR;
+        return ERR_PTR(-EINTR);

     list_for_each_entry(ops, &nf_sockopts, list) {
         if (ops->pf == pf) {
             if (!try_module_get(ops->owner))
                 goto out_nosup;
+
+            if (get) {
+                if (val >= ops->get_optmin
```

```

-    && val < ops->get_optmax) {
-    mutex_unlock(&nf_sockopt_mutex);
-    ret = ops->get(sk, val, opt, len);
+    if (val >= ops->get_optmin &&
+        val < ops->get_optmax)
+        goto out;
-    }
-    } else {
-    if (val >= ops->set_optmin
-        && val < ops->set_optmax) {
-    mutex_unlock(&nf_sockopt_mutex);
-    ret = ops->set(sk, val, opt, *len);
+    if (val >= ops->set_optmin &&
+        val < ops->set_optmax)
+        goto out;
-    }
-    }
-    module_put(ops->owner);
-    }
-    }
- out_nosup:
+out_nosup:
+ ops = ERR_PTR(-ENOPROTOOPT);
+out:
+    mutex_unlock(&nf_sockopt_mutex);
- return -ENOPROTOOPT;
+ return ops;
+}
+
+/* Call get/setsockopt() */
+static int nf_sockopt(struct sock *sk, int pf, int val,
+    char __user *opt, int *len, int get)
+{
+    struct nf_sockopt_ops *ops;
+    int ret;
+
+    ops = nf_sockopt_find(sk, pf, val, get);
+    if (IS_ERR(ops))
+        return PTR_ERR(ops);
+
+    if (get)
+        ret = ops->get(sk, val, opt, len);
+    else
+        ret = ops->set(sk, val, opt, *len);

- out:
-    module_put(ops->owner);
-    return ret;

```

```

}
@@ -124,51 +135,22 @@ static int compat_nf_sockopt(struct sock *sk, int pf, int val,
    struct nf_sockopt_ops *ops;
    int ret;

- if (sk->sk_net != &init_net)
- return -ENOPROTOOPT;
-
-
- if (mutex_lock_interruptible(&nf_sockopt_mutex) != 0)
- return -EINTR;
-
- list_for_each_entry(ops, &nf_sockopts, list) {
- if (ops->pf == pf) {
- if (!try_module_get(ops->owner))
- goto out_nosup;
-
- if (get) {
- if (val >= ops->get_optmin
-     && val < ops->get_optmax) {
- mutex_unlock(&nf_sockopt_mutex);
- if (ops->compat_get)
- ret = ops->compat_get(sk,
- val, opt, len);
- else
- ret = ops->get(sk,
- val, opt, len);
- goto out;
- }
- } else {
- if (val >= ops->set_optmin
-     && val < ops->set_optmax) {
- mutex_unlock(&nf_sockopt_mutex);
- if (ops->compat_set)
- ret = ops->compat_set(sk,
- val, opt, *len);
- else
- ret = ops->set(sk,
- val, opt, *len);
- goto out;
- }
- }
- module_put(ops->owner);
- }
+ ops = nf_sockopt_find(sk, pf, val, get);
+ if (IS_ERR(ops))
+ return PTR_ERR(ops);
+

```

```
+ if (get) {
+   if (ops->compat_get)
+     ret = ops->compat_get(sk, val, opt, len);
+   else
+     ret = ops->get(sk, val, ops, len);
+ } else {
+   if (ops->compat_set)
+     ret = ops->compat_set(sk, val, ops, *len);
+   else
+     ret = ops->set(sk, val, ops, *len);
+ }
- out_nosup:
- mutex_unlock(&nf_sockopt_mutex);
- return -ENOPROTOOPT;

- out:
  module_put(ops->owner);
  return ret;
}
```

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Subject: Re: [PATCH] [NETFILTER] Consolidate nf\_sockopt and compat\_nf\_sockopt v2

Posted by [Patrick McHardy](#) on Thu, 08 Nov 2007 16:43:21 GMT

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Pavel Emelyanov wrote:

```
> Both lookup the nf_sockopt_ops object to call the get/set callbacks
> from, but they perform it in a completely similar way.
>
> Introduce the helper for finding the ops.
>
> Ported at the top of today's net-2.6 tree to resolve conflict
> with the patch from Alexey Dobriyan.
```

Applied, thanks Pavel.

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