
Subject: [PATCH net-2.6.25 10/10][NETNS][FRAGS]: Make the pernet subsystem for fragments.

Posted by [Pavel Emelianov](#) on Tue, 22 Jan 2008 14:10:51 GMT

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On namespace start we mainly prepare the ctl variables.

When the namespace is stopped we have to kill all the fragments that point to this namespace.

The inet_fragments_exit_net() handles it.

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

```
include/net/inet_frag.h | 1 +
net/ipv4/inet_fragment.c | 7 +++++++
net/ipv4/ip_fragment.c | 13 ++++++++
net/ipv6/reassembly.c | 14 ++++++++
4 files changed, 33 insertions(+), 2 deletions(-)
```

```
diff --git a/include/net/inet_frag.h b/include/net/inet_frag.h
```

```
index 3695ff4..7374251 100644
```

```
--- a/include/net/inet_frag.h
```

```
+++ b/include/net/inet_frag.h
```

```
@@ -54,6 +54,7 @@ void inet_fragments_init(struct inet_fragments *);
void inet_fragments_fini(struct inet_fragments *);
```

```
void inet_fragments_init_net(struct netns_fragments *nf);
```

```
+void inet_fragments_exit_net(struct netns_fragments *nf, struct inet_fragments *f);
```

```
void inet_frag_kill(struct inet_frag_queue *q, struct inet_fragments *f);
```

```
void inet_frag_destroy(struct inet_frag_queue *q,
```

```
diff --git a/net/ipv4/inet_fragment.c b/net/ipv4/inet_fragment.c
```

```
index f1b95e1..724d69a 100644
```

```
--- a/net/ipv4/inet_fragment.c
```

```
+++ b/net/ipv4/inet_fragment.c
```

```
@@ -83,6 +83,13 @@ void inet_fragments_fini(struct inet_fragments *f)
```

```
}
```

```
EXPORT_SYMBOL(inet_fragments_fini);
```

```
+void inet_fragments_exit_net(struct netns_fragments *nf, struct inet_fragments *f)
```

```
+{
```

```
+ nf->low_thresh = 0;
```

```
+ inet_frag_evictor(nf, f);
```

```
+}
```

```
+EXPORT_SYMBOL(inet_fragments_exit_net);
```

```
+
```

```
static inline void fq_unlink(struct inet_frag_queue *fq, struct inet_fragments *f)
```

```

{
    write_lock(&f->lock);
diff --git a/net/ipv4/ip_fragment.c b/net/ipv4/ip_fragment.c
index 29b4b09..a2e92f9 100644
--- a/net/ipv4/ip_fragment.c
+++ b/net/ipv4/ip_fragment.c
@@ -713,9 +713,20 @@ static int ipv4_frags_init_net(struct net *net)
    return ip4_frags_ctl_register(net);
}

+static void ipv4_frags_exit_net(struct net *net)
+{
+    ip4_frags_ctl_unregister(net);
+    inet_frags_exit_net(&net->ipv4.frags, &ip4_frags);
+}
+
+static struct pernet_operations ip4_frags_ops = {
+    .init = ipv4_frags_init_net,
+    .exit = ipv4_frags_exit_net,
+};
+
+void __init ipfrag_init(void)
+{
+    - ipv4_frags_init_net(&init_net);
+    + register_pernet_subsys(&ip4_frags_ops);
+    ip4_frags.hashfn = ip4_hashfn;
+    ip4_frags.constructor = ip4_frag_init;
+    ip4_frags.destructor = ip4_frag_free;
diff --git a/net/ipv6/reassembly.c b/net/ipv6/reassembly.c
index 0c4bc46..f936d04 100644
--- a/net/ipv6/reassembly.c
+++ b/net/ipv6/reassembly.c
@@ -728,6 +728,17 @@ static int ipv6_frags_init_net(struct net *net)
    return ip6_frags_sysctl_register(net);
}

+static void ipv6_frags_exit_net(struct net *net)
+{
+    ip6_frags_sysctl_unregister(net);
+    inet_frags_exit_net(&net->ipv6.frags, &ip6_frags);
+}
+
+static struct pernet_operations ip6_frags_ops = {
+    .init = ipv6_frags_init_net,
+    .exit = ipv6_frags_exit_net,
+};
+
+int __init ipv6_frag_init(void)

```

```

{
    int ret;
@@ -736,7 +747,7 @@ int __init ipv6_frag_init(void)
    if (ret)
        goto out;

- ipv6_frags_init_net(&init_net);
+ register_pernet_subsys(&ipv6_frags_ops);

    ipv6_frags.hashfn = ip6_hashfn;
    ipv6_frags.constructor = ip6_frag_init;
@@ -754,5 +765,6 @@ out:
void ipv6_frag_exit(void)
{
    inet_frags_fini(&ipv6_frags);
+ unregister_pernet_subsys(&ipv6_frags_ops);
    inet6_del_protocol(&frag_protocol, IPPROTO_FRAGMENT);
}
--
1.5.3.4

```
