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Subject: [PATCH][NETNS] Consolidate hashes creation in netdev\_init()

Posted by [Pavel Emelianov](#) on Fri, 14 Sep 2007 08:40:49 GMT

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The dev\_name\_hash and the dev\_index\_hash are now booth kcalloc-ed (and each element is properly initialized as usually) so I think it's worth consolidating this code making it look nicer (and saving 28 bytes of .text section ;) )

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

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```
diff --git a/net/core/dev.c b/net/core/dev.c
```

```
index a22a95d..1a60ed2 100644
```

```
--- a/net/core/dev.c
```

```
+++ b/net/core/dev.c
```

```
@@ -4258,32 +4258,39 @@ int netdev_compute_features(unsigned lon  
}
```

```
EXPORT_SYMBOL(netdev_compute_features);
```

```
+static struct hlist_head *netdev_create_hash(void)
```

```
+{
```

```
+ int i;
```

```
+ struct hlist_head *hash;
```

```
+
```

```
+ hash = kcalloc(sizeof(*hash) * NETDEV_HASHENTRIES, GFP_KERNEL);
```

```
+ if (hash != NULL)
```

```
+ for (i = 0; i < NETDEV_HASHENTRIES; i++)
```

```
+ INIT_HLIST_HEAD(&hash[i]);
```

```
+
```

```
+ return hash;
```

```
+}
```

```
+
```

```
/* Initialize per network namespace state */
```

```
static int netdev_init(struct net *net)
```

```
{
```

```
- int i;
```

```
INIT_LIST_HEAD(&net->dev_base_head);
```

```
rwlock_init(&dev_base_lock);
```

```
- net->dev_name_head = kcalloc(
```

```
- sizeof(*net->dev_name_head)*NETDEV_HASHENTRIES, GFP_KERNEL);
```

```
- if (!net->dev_name_head)
```

```
- return -ENOMEM;
```

```
-
```

```
- net->dev_index_head = kcalloc(
```

```
- sizeof(*net->dev_index_head)*NETDEV_HASHENTRIES, GFP_KERNEL);
```

```
- if (!net->dev_index_head) {
- kfree(net->dev_name_head);
- return -ENOMEM;
- }
-
- for (i = 0; i < NETDEV_HASHENTRIES; i++)
- INIT_HLIST_HEAD(&net->dev_name_head[i]);
-
- for (i = 0; i < NETDEV_HASHENTRIES; i++)
- INIT_HLIST_HEAD(&net->dev_index_head[i]);
+ net->dev_name_head = netdev_create_hash();
+ if (net->dev_name_head == NULL)
+ goto err_name;
+
+ net->dev_index_head = netdev_create_hash();
+ if (net->dev_index_head == NULL)
+ goto err_idx;

return 0;
+
+err_idx:
+ kfree(net->dev_name_head);
+err_name:
+ return -ENOMEM;
}

static void netdev_exit(struct net *net)
```

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Subject: Re: [PATCH][NETNS] Consolidate hashes creation in netdev\_init()  
Posted by [davem](#) on Sun, 16 Sep 2007 22:40:54 GMT  
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From: Pavel Emelyanov <xemul@openvz.org>  
Date: Fri, 14 Sep 2007 12:40:49 +0400

> The dev\_name\_hash and the dev\_index\_hash are now booth kmalloc-ed  
> (and each element is properly initialized as usually) so I think  
> it's worth consolidating this code making it look nicer (and  
> saving 28 bytes of .text section ;) )  
>  
> Signed-off-by: Pavel Emelyanov <xemul@openvz.org>

Applied to net-2.6.24, thanks Pavel.

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