
Subject: [PATCH] Fix memory leak in inet_hashtables.h when NUMA is on
Posted by [Pavel Emelianov](#) on Fri, 23 Nov 2007 16:13:11 GMT

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The inet_ehash_locks_alloc() looks like this:

```
#ifdef CONFIG_NUMA
if (size > PAGE_SIZE)
    x = vmalloc(...);
else
#endif
    x = kmalloc(...);
```

Unlike it, the inet_ehash_locks_alloc() looks like this:

```
#ifdef CONFIG_NUMA
if (size > PAGE_SIZE)
    vfree(x);
else
#endif
    kfree(x);
#endif
```

The error is obvious - if the NUMA is on and the size is less than the PAGE_SIZE we leak the pointer (kfree is inside the #else branch).

Compiler doesn't warn us because after the kfree(x) there's a "x = NULL" assignment, so here's another (minor?) bug: we don't set x to NULL under certain circumstances.

Boring explanation, I know... Patch explains it better.

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

```
---
diff --git a/include/net/inet_hashtables.h b/include/net/inet_hashtables.h
index 469216d..37f6cb1 100644
--- a/include/net/inet_hashtables.h
+++ b/include/net/inet_hashtables.h
@@ -186,9 +186,8 @@ static inline void inet_ehash_locks_free(struct inet_hashinfo *hashinfo)
    if (size > PAGE_SIZE)
        vfree(hashinfo->ehash_locks);
    else
-#else
-    kfree(hashinfo->ehash_locks);
#endif
```

```
+ kfree(hashinfo->ehash_locks);
  hashinfo->ehash_locks = NULL;
}
}
```

Subject: Re: [PATCH] Fix memory leak in inet_hashtables.h when NUMA is on
Posted by [Herbert Xu](#) on Mon, 26 Nov 2007 12:36:09 GMT

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On Fri, Nov 23, 2007 at 07:13:11PM +0300, Pavel Emelyanov wrote:

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> don't set x to NULL under certain circumstances.
```

```
>
> Boring explanation, I know... Patch explains it better.
```

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

Good catch! Applied to net-2.6. Thanks.

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PGP Key: <http://gondor.apana.org.au/~herbert/pubkey.txt>
