
Subject: [PATCH net-2.6.25 2/3] Uninline the __inet_lookup_established function
Posted by [Pavel Emelianov](#) on Wed, 19 Dec 2007 10:53:40 GMT
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This is -700 bytes from the net/ipv4/built-in.o

```
add/remove: 1/0 grow/shrink: 1/3 up/down: 340/-1040 (-700)
function          old    new  delta
__inet_lookup_established      -   339  +339
tcp_sacktag_write_queue        2254 2255   +1
tcp_v4_err                    1304  973  -331
tcp_v4_rcv                    2089 1744  -345
tcp_v4_do_rcv                  826  462  -364
```

Exporting is for dccp module (used via e.g. inet_lookup).

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

```
---
include/net/inet_hashtables.h | 40 +++-----
net/ipv4/inet_hashtables.c   | 38 ++++++
2 files changed, 41 insertions(+), 37 deletions(-)
```

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

```
index 1a43125..a33eab7 100644
```

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

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

```
@@ -374,43 +374,9 @@ typedef __u64 __bitwise __addrpair;
```

```
*
```

```
* Local BH must be disabled here.
```

```
*/
```

```
-static inline struct sock *
```

```
- __inet_lookup_established(struct inet_hashinfo *hashinfo,
```

```
-    const __be32 saddr, const __be16 sport,
```

```
-    const __be32 daddr, const u16 hnum,
```

```
-    const int dif)
```

```
-{
```

```
- INET_ADDR_COOKIE(acookie, saddr, daddr)
```

```
- const __portpair ports = INET_COMBINED_PORTS(sport, hnum);
```

```
- struct sock *sk;
```

```
- const struct hlist_node *node;
```

```
- /* Optimize here for direct hit, only listening connections can
```

```
-  * have wildcards anyways.
```

```
- */
```

```
- unsigned int hash = inet_ehashfn(daddr, hnum, saddr, sport);
```

```
- struct inet_ehash_bucket *head = inet_ehash_bucket(hashinfo, hash);
```

```
- rwlock_t *lock = inet_ehash_lockp(hashinfo, hash);
```

```
-
```

```

- prefetch(head->chain.first);
- read_lock(lock);
- sk_for_each(sk, node, &head->chain) {
-   if (INET_MATCH(sk, hash, acookie, saddr, daddr, ports, dif))
-     goto hit; /* You sunk my battleship! */
- }
-
- /* Must check for a TIME_WAIT'er before going to listener hash. */
- sk_for_each(sk, node, &head->twchain) {
-   if (INET_TW_MATCH(sk, hash, acookie, saddr, daddr, ports, dif))
-     goto hit;
- }
- sk = NULL;
-out:
- read_unlock(lock);
- return sk;
-hit:
- sock_hold(sk);
- goto out;
-}
+extern struct sock * __inet_lookup_established(struct inet_hashinfo *hashinfo,
+ const __be32 saddr, const __be16 sport,
+ const __be32 daddr, const u16 hnum, const int dif);

static inline struct sock *
inet_lookup_established(struct inet_hashinfo *hashinfo,
diff --git a/net/ipv4/inet_hashtables.c b/net/ipv4/inet_hashtables.c
index 46f899b..db43ddd 100644
--- a/net/ipv4/inet_hashtables.c
+++ b/net/ipv4/inet_hashtables.c
@@ -190,6 +190,44 @@ sherry_cache:
}
EXPORT_SYMBOL_GPL(__inet_lookup_listener);

+struct sock * __inet_lookup_established(struct inet_hashinfo *hashinfo,
+ const __be32 saddr, const __be16 sport,
+ const __be32 daddr, const u16 hnum,
+ const int dif)
+{
+ INET_ADDR_COOKIE(acookie, saddr, daddr)
+ const __portpair ports = INET_COMBINED_PORTS(sport, hnum);
+ struct sock *sk;
+ const struct hlist_node *node;
+ /* Optimize here for direct hit, only listening connections can
+  * have wildcards anyways.
+  */
+ unsigned int hash = inet_ehashfn(daddr, hnum, saddr, sport);
+ struct inet_ehash_bucket *head = inet_ehash_bucket(hashinfo, hash);

```

```

+ rwlock_t *lock = inet_ehash_lockp(hashinfo, hash);
+
+ prefetch(head->chain.first);
+ read_lock(lock);
+ sk_for_each(sk, node, &head->chain) {
+ if (INET_MATCH(sk, hash, acookie, saddr, daddr, ports, dif))
+ goto hit; /* You sunk my battleship! */
+ }
+
+ /* Must check for a TIME_WAIT'er before going to listener hash. */
+ sk_for_each(sk, node, &head->twchain) {
+ if (INET_TW_MATCH(sk, hash, acookie, saddr, daddr, ports, dif))
+ goto hit;
+ }
+ sk = NULL;
+out:
+ read_unlock(lock);
+ return sk;
+hit:
+ sock_hold(sk);
+ goto out;
+}
+EXPORT_SYMBOL_GPL(__inet_lookup_established);
+
+ /* called with local bh disabled */
+ static int __inet_check_established(struct inet_timewait_death_row *death_row,
+ struct sock *sk, __u16 lport,
+ --
1.5.3.4

```

Subject: Re: [PATCH net-2.6.25 2/3] Uninline the __inet_lookup_established function

Posted by [davem](#) on Thu, 20 Dec 2007 23:32:24 GMT

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From: Pavel Emelyanov <xemul@openvz.org>

Date: Wed, 19 Dec 2007 13:53:40 +0300

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>

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>
> Exporting is for dccp module (used via e.g. inet_lookup).
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> Signed-off-by: Pavel Emelyanov <xemul@openvz.org>

Applied.
