
Subject: Re: [PATCH] [IPV4]: Remove warning in node_set_parent.
Posted by [Stephen Hemminger](#) on Mon, 11 Feb 2008 19:48:49 GMT
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On Mon, 11 Feb 2008 11:47:17 +0300

"Denis V. Lunev" <den@openvz.org> wrote:

```
> net/ipv4/fib_trie.c: In function 'node_set_parent':
> net/ipv4/fib_trie.c:184: warning: assignment makes integer from pointer
> without a cast
>
> Signed-off-by: Denis V. Lunev <den@openvz.org>
> ---
> net/ipv4/fib_trie.c | 7 ++++---
> 1 files changed, 4 insertions(+), 3 deletions(-)
>
> diff --git a/net/ipv4/fib_trie.c b/net/ipv4/fib_trie.c
> index f5fba3f..1753cd4 100644
> --- a/net/ipv4/fib_trie.c
> +++ b/net/ipv4/fib_trie.c
> @@ -177,10 +177,11 @@ static inline struct tnode *node_parent_rcu(struct node *node)
>  return rcu_dereference(ret);
> }
>
> -static inline void node_set_parent(struct node *node, struct tnode *ptr)
> +static inline void node_set_parent(struct node *node, struct tnode *__ptr)
> {
> - rcu_assign_pointer(node->parent,
> - (unsigned long)ptr | NODE_TYPE(node));
> + struct node *ptr;
> + ptr = (struct node *)((unsigned long)__ptr | NODE_TYPE(node));
> + rcu_assign_pointer(node->parent, ptr);
> }
>
> static inline struct node *tnode_get_child(struct tnode *tn, unsigned int i)
```

No, this causes new warning from assigning pointer (ptr) to integer node->parent.

Why not just change rcupdate.h to do the right thing.

```
>From a00f7cbf1c2f2282eced236e1e8b99b0fec213a Mon Sep 17 00:00:00 2001
From: Stephen Hemminger <stephen.hemminger@vyatta.com>
Date: Mon, 11 Feb 2008 11:28:13 -0800
Subject: [PATCH] eliminate warnings when rcu_assign_pointer is used with unsigned long
```

It is reasonable to use RCU with non-pointer values, and describe the optimization.

Signed-off-by: Stephen Hemminger <shemminger@vyatta.com>

include/linux/rcupdate.h | 13 ++++++-----
1 files changed, 7 insertions(+), 6 deletions(-)

diff --git a/include/linux/rcupdate.h b/include/linux/rcupdate.h

index 37a642c..c44ac87 100644

--- a/include/linux/rcupdate.h

+++ b/include/linux/rcupdate.h

@@ -172,14 +172,15 @@ struct rcu_head {

* structure after the pointer assignment. More importantly, this

* call documents which pointers will be dereferenced by RCU read-side

* code.

+ *

+ * If value is the NULL (constant 0), then no barrier is needed.

*/

-#define rcu_assign_pointer(p, v) \

- ({ \

- if (!__builtin_constant_p(v) || \

- ((v) != NULL)) \

- smp_wmb(); \

- (p) = (v); \

+#define rcu_assign_pointer(p, v) \

+ ({ \

+ if (!__builtin_constant_p(v) && v)) \

+ smp_wmb(); \

+ (p) = (v); \

})

/**

--

1.5.3.8

--

Stephen Hemminger <stephen.hemminger@vyatta.com>