Subject: [BRIDGE] Unaligned access on IA64 when comparing ethernet addresses
Posted by xemul on Tue, 17 Apr 2007 11:45:18 GMT
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compare_ether_addr() implicitly requires that the addresses
passed are 2-bytes aligned in memory.

This is not true for br_stp_change_bridge_id() and
br_stp_recalculate_bridge_id() in which one of the addresses
is unsigned char *, and thus may not be 2-bytes aligned.

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```
--- a/net/bridge/br_stp_if.c 2006-09-20 07:42:06.000000000 +0400
+++ b/net/bridge/br_stp_if.c 2007-04-13 12:28:08.000000000 +0400
@@ -124,7 +124,9 @@ void br_stp_disable_port(struct net_brid
 /* called under bridge lock */
 void br_stp_change_bridge_id(struct net_bridge *br, const unsigned char *addr)
 {
- unsigned char oldaddr[6];
+ /* should be aligned on 2 bytes for compare_ether_addr() */
+ unsigned short oldaddr_aligned[ETH_ALEN >> 1];
+ unsigned char *oldaddr = (unsigned char *)oldaddr_aligned;
  struct net_bridge_port *p;
  int wasroot;

@@ -149,11 +151,14 @@ void br_stp_change_bridge_id(struct net_
   br_become_root_bridge(br);
 }

-static const unsigned char br_mac_zero[6];
+/* should be aligned on 2 bytes for compare_ether_addr() */
+static const unsigned short br_mac_zero_aligned[ETH_ALEN >> 1];

 /* called under bridge lock */
 void br_stp_recalculate_bridge_id(struct net_bridge *br)
 {
+ const unsigned char *br_mac_zero =
+   (const unsigned char *)br_mac_zero_aligned;
  const unsigned char *addr = br_mac_zero;
  struct net_bridge_port *p;
```