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Subject: [PATCH] Cleanup the IPv6 addresses printing in /proc files

Posted by [Pavel Emelianov](#) on Tue, 23 Oct 2007 16:37:00 GMT

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The /proc/net udp6, tcp6 and raw6 files print the IPs of the connection ends. Make a NIP6Lxxx macros (L stands for "long") for making the printing code look nicer.

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

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diff --git a/include/linux/kernel.h b/include/linux/kernel.h
index 94bc996..5d199ae 100644
--- a/include/linux/kernel.h
+++ b/include/linux/kernel.h
@@ -307,6 +307,13 @@ static inline int __attribute__((format(printf, 1, 2))) pr_debug(const char
*
#define NIP6_FMT "%04x:%04x:%04x:%04x:%04x:%04x:%04x:%04x"
#define NIP6_SEQFMT "%04x%04x%04x%04x%04x%04x%04x%04x"

+#define NIP6L(addr) \
+ ((addr).s6_addr32[0]), \
+ ((addr).s6_addr32[1]), \
+ ((addr).s6_addr32[2]), \
+ ((addr).s6_addr32[3])
+#define NIP6L_FMT "%08X%08X%08X%08X"
+
+#if defined(__LITTLE_ENDIAN)
+#define HIPQUAD(addr) \
+ ((unsigned char *)&addr)[3], \
diff --git a/net/ipv6/raw.c b/net/ipv6/raw.c
index ca24ef1..c3a1939 100644
--- a/net/ipv6/raw.c
+++ b/net/ipv6/raw.c
@@ -1250,13 +1250,9 @@ static void raw6_sock_seq_show(struct seq_file *seq, struct sock *sp,
int i)
{
    destp = 0;
    srcp = inet_sk(sp)->num;
    seq_printf(seq,
-    "%4d: %08X%08X%08X%08X:%04X %08X%08X%08X%08X:%04X "
+    "%4d: " NIP6L_FMT ":%04X " NIP6L_FMT ":%04X "
        "%02X %08X%08X %02X:%08X %08X %5d %8d %lu %d %p\n",
-    i,
-    src->s6_addr32[0], src->s6_addr32[1],
-    src->s6_addr32[2], src->s6_addr32[3], srcp,
-    dest->s6_addr32[0], dest->s6_addr32[1],
-    dest->s6_addr32[2], dest->s6_addr32[3], destp,
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+ i, NIP6L(*src), srcp, NIP6L(*dest), destp,
  sp->sk_state,
  atomic_read(&sp->sk_wmem_alloc),
  atomic_read(&sp->sk_rmem_alloc),
diff --git a/net/ipv6/tcp_ipv6.c b/net/ipv6/tcp_ipv6.c
index 737b755..0041be3 100644
--- a/net/ipv6/tcp_ipv6.c
+++ b/net/ipv6/tcp_ipv6.c
@@ -1945,15 +1945,10 @@ static void get_openreq6(struct seq_file *seq,
    ttd = 0;

    seq_printf(seq,
-   "%4d: %08X%08X%08X%08X:%04X %08X%08X%08X%08X:%04X "
+   "%4d: " NIP6L_FMT ":%04X " NIP6L_FMT ":%04X "
    "%02X %08X:%08X %02X:%08IX %08X %5d %8d %d %d %p\n",
-   i,
-   src->s6_addr32[0], src->s6_addr32[1],
-   src->s6_addr32[2], src->s6_addr32[3],
-   ntohs(inet_sk(sk)->sport),
-   dest->s6_addr32[0], dest->s6_addr32[1],
-   dest->s6_addr32[2], dest->s6_addr32[3],
-   ntohs(inet_rsk(req)->rmt_port),
+   i, NIP6L(*src), ntohs(inet_sk(sk)->sport),
+   NIP6L(*dest), ntohs(inet_rsk(req)->rmt_port),
    TCP_SYN_RECV,
    0,0, /* could print option size, but that is af dependent. */
    1, /* timers active (only the expire timer) */
@@ -1996,13 +1991,9 @@ static void get_tcp6_sock(struct seq_file *seq, struct sock *sp, int i)
}

seq_printf(seq,
-   "%4d: %08X%08X%08X%08X:%04X %08X%08X%08X%08X:%04X "
+   "%4d: " NIP6L_FMT ":%04X " NIP6L_FMT ":%04X "
    "%02X %08X:%08X %02X:%08IX %08X %5d %8d %lu %d %p %u %u %u %u %d\n",
-   i,
-   src->s6_addr32[0], src->s6_addr32[1],
-   src->s6_addr32[2], src->s6_addr32[3], srcp,
-   dest->s6_addr32[0], dest->s6_addr32[1],
-   dest->s6_addr32[2], dest->s6_addr32[3], destp,
+   i, NIP6L(*src), srcp, NIP6L(*dest), destp,
    sp->sk_state,
    tp->write_seq-tp->snd_una,
    (sp->sk_state == TCP_LISTEN) ? sp->sk_ack_backlog : (tp->rcv_nxt - tp->copied_seq),
@@ -2037,13 +2028,9 @@ static void get_timewait6_sock(struct seq_file *seq,
    srcp = ntohs(tw->tw_sport);

    seq_printf(seq,
-   "%4d: %08X%08X%08X%08X:%04X %08X%08X%08X%08X:%04X "

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+   "%4d: " NIP6L_FMT ":%04X " NIP6L_FMT ":%04X "
    "%02X %08X:%08X %02X:%08IX %08X %5d %8d %d %d %p\n",
-   i,
-   src->s6_addr32[0], src->s6_addr32[1],
-   src->s6_addr32[2], src->s6_addr32[3], srcp,
-   dest->s6_addr32[0], dest->s6_addr32[1],
-   dest->s6_addr32[2], dest->s6_addr32[3], destp,
+   i, NIP6L(*src), srcp, NIP6L(*dest), destp,
    tw->tw_substate, 0, 0,
    3, jiffies_to_clock_t(ttd), 0, 0, 0, 0,
    atomic_read(&tw->tw_refcnt), tw);
diff --git a/net/ipv6/udp.c b/net/ipv6/udp.c
index caebad6..bcc5f8e 100644
--- a/net/ipv6/udp.c
+++ b/net/ipv6/udp.c
@@ -919,13 +919,9 @@ static void udp6_sock_seq_show(struct seq_file *seq, struct sock *sp,
int bucket
    destp = ntohs(inet->dport);
    srcp = ntohs(inet->sport);
    seq_printf(seq,
-   "%4d: %08X%08X%08X%08X:%04X %08X%08X%08X%08X:%04X "
+   "%4d: " NIP6L_FMT ":%04X " NIP6L_FMT ":%04X "
    "%02X %08X:%08X %02X:%08IX %08X %5d %8d %lu %d %p\n",
-   bucket,
-   src->s6_addr32[0], src->s6_addr32[1],
-   src->s6_addr32[2], src->s6_addr32[3], srcp,
-   dest->s6_addr32[0], dest->s6_addr32[1],
-   dest->s6_addr32[2], dest->s6_addr32[3], destp,
+   bucket, NIP6L(*src), srcp, NIP6L(*dest), destp,
    sp->sk_state,
    atomic_read(&sp->sk_wmem_alloc),
    atomic_read(&sp->sk_rmem_alloc),

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