Subject: [PATCH 1/2] virtualized ipt_REDIRECT
Posted by Jason Stubbs on Fri, 03 Mar 2006 06:00:46 GMT
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Hi all,

I'm not exactly sure on the format I'm supposed to submit patches in, so
I'll just follow what everybody else is doing.

Patch from Jason (jstubbs@work-at.co.jp):
This patch virtualizes the ipt_REDIRECT iptables module.

--
Jason Stubbs

```
diff -uNr linux-2.6.15-openvz-025.014.orig/include/linux/nfcalls.h
linux-2.6.15-openvz-025.014/include/linux/nfcalls.h
--- linux-2.6.15-openvz-025.014.orig/include/linux/nfcalls.h 2006-03-03 14:36:32.560909760
+0900
+++ linux-2.6.15-openvz-025.014/include/linux/nfcalls.h 2006-03-03 14:37:38.401900408 +0900
@@ -143,6 +143,7 @@
 DECL_KSYM_MODULE(iptable_nat);
 DECL_KSYM_MODULE(ip_nat_ftp);
 DECL_KSYM_MODULE(ip_nat_irc);
+DECL_KSYM_MODULE(ipt_REDIRECT);

 struct sk_buff;

diff -uNr linux-2.6.15-openvz-025.014.orig/include/linux/ve_proto.h
linux-2.6.15-openvz-025.014/include/linux/ve_proto.h
--- linux-2.6.15-openvz-025.014.orig/include/linux/ve_proto.h 2006-03-03 14:36:32.560909760
+0900
+++ linux-2.6.15-openvz-025.014/include/linux/ve_proto.h 2006-03-03 14:38:42.914093064 +0900
@@ -55,6 +55,7 @@
 extern int init_iptable_multiport(void);
 extern int init_iptable_tos(void);
 extern int init_iptable_REJECT(void);
+extern int init_iptable_REDIRECT(void);
 extern void fini_netfilter(void);
 extern int fini_iptables(void);
 extern int fini_iptable_filter(void);
@@ -62,6 +63,7 @@
 extern int fini_iptable_multiport(void);
 extern int fini_iptable_tos(void);
 extern int fini_iptable_REJECT(void);
+extern int fini_iptable_REDIRECT(void);
 #endif
```

```
 #define VE_HOOK_INIT 0
diff -uNr linux-2.6.15-openvz-025.014.orig/include/linux/vzcalluser.h
linux-2.6.15-openvz-025.014/include/linux/vzcalluser.h
--- linux-2.6.15-openvz-025.014.orig/include/linux/vzcalluser.h 2006-03-03 14:36:32.561909608
+0900
+++ linux-2.6.15-openvz-025.014/include/linux/vzcalluser.h 2006-03-03 14:39:39.544483936
+0900
@@ -80,6 +80,7 @@
 #define VE_IP_NAT_MOD   (1U<<20)
 #define VE_IP_NAT_FTP_MOD  (1U<<21)
 #define VE_IP_NAT_IRC_MOD  (1U<<22)
+#define VE_IP_TARGET_REDIRECT_MOD (1U<<23)

 /* these masks represent modules with their dependences */
 #define VE_IP_IPTABLES  (VE_IP_IPTABLES_MOD)
@@ -125,6 +126,8 @@
     | VE_IP_NAT | VE_IP_CONNTRACK_FTP)
 #define VE_IP_NAT_IRC  (VE_IP_NAT_IRC_MOD  \
     | VE_IP_NAT | VE_IP_CONNTRACK_IRC)
+#define VE_IP_TARGET_REDIRECT (VE_IP_TARGET_REDIRECT_MOD \
+    | VE_IP_NAT)

 /* safe iptables mask to be used by default */
 #define VE_IP_DEFAULT     \
diff -uNr linux-2.6.15-openvz-025.014.orig/kernel/ve.c linux-2.6.15-openvz-025.014/kernel/ve.c
--- linux-2.6.15-openvz-025.014.orig/kernel/ve.c 2006-03-03 14:36:33.253804424 +0900
+++ linux-2.6.15-openvz-025.014/kernel/ve.c 2006-03-03 14:41:02.759833280 +0900
@@ -75,6 +75,7 @@
 INIT_KSYM_MODULE(iptable_nat);
 INIT_KSYM_MODULE(ip_nat_ftp);
 INIT_KSYM_MODULE(ip_nat_irc);
+INIT_KSYM_MODULE(ipt_REDIRECT);

 INIT_KSYM_CALL(int, init_netfilter, (void));
 INIT_KSYM_CALL(int, init_iptables, (void));
@@ -100,6 +101,7 @@
 INIT_KSYM_CALL(int, init_iptable_nat, (void));
 INIT_KSYM_CALL(int, init_iptable_nat_ftp, (void));
 INIT_KSYM_CALL(int, init_iptable_nat_irc, (void));
+INIT_KSYM_CALL(int, init_iptable_REDIRECT, (void));
 INIT_KSYM_CALL(void, fini_iptable_nat_irc, (void));
 INIT_KSYM_CALL(void, fini_iptable_nat_ftp, (void));
 INIT_KSYM_CALL(void, fini_iptable_nat, (void));
@@ -124,6 +126,7 @@
 INIT_KSYM_CALL(void, fini_iptable_mangle, (void));
 INIT_KSYM_CALL(void, fini_iptables, (void));
 INIT_KSYM_CALL(void, fini_netfilter, (void));
+INIT_KSYM_CALL(void, fini_iptable_REDIRECT, (void));
```

```
 INIT_KSYM_CALL(void, ipt_flush_table, (struct ipt_table *table));
 #endif
diff -uNr linux-2.6.15-openvz-025.014.orig/kernel/vecalls.c
linux-2.6.15-openvz-025.014/kernel/vecalls.c
--- linux-2.6.15-openvz-025.014.orig/kernel/vecalls.c 2006-03-03 14:36:33.253804424 +0900
+++ linux-2.6.15-openvz-025.014/kernel/vecalls.c 2006-03-03 14:42:35.671708528 +0900
@@ -1592,6 +1592,13 @@
  if (err < 0)
   goto err_iptable_length;
 #endif
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+    defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ err = KSYMIPTINIT(init_mask, ve, VE_IP_TARGET_REDIRECT,
+   ipt_REDIRECT, init_iptable_REDIRECT, ());
+ if (err < 0)
+  goto err_iptable_REDIRECT;
+#endif
  return 0;

 /*  ---------------------------------------------------------- ------------- */
@@ -1732,6 +1739,12 @@
    ip_tables, fini_iptables, ());
 err_iptables:
 #endif
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+    defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ KSYMIPTFINI(ve->_iptables_modules, VE_IP_TARGET_REDIRECT,
+   ipt_REDIRECT, fini_iptable_REDIRECT, ());
+err_iptable_REDIRECT:
+#endif
  ve->_iptables_modules = 0;

  return err;
diff -uNr  linux-2.6.15-openvz-025.014.orig/net/ipv4/netfilter/ipt_REDI RECT.c
linux-2.6.15-openvz-025.014/net/ipv4/netfilter/ipt_REDIRECT. c
---  linux-2.6.15-openvz-025.014.orig/net/ipv4/netfilter/ipt_REDI RECT.c 2006-03-03
14:36:33.952698176 +0900
+++  linux-2.6.15-openvz-025.014/net/ipv4/netfilter/ipt_REDIRECT. c 2006-03-03
14:47:44.502759072 +0900
@@ -17,6 +17,7 @@
 #include <linux/inetdevice.h>
 #include <net/protocol.h>
 #include <net/checksum.h>
+#include <linux/nfcalls.h>
 #include <linux/netfilter_ipv4.h>
 #include <linux/netfilter_ipv4/ip_nat_rule.h>
```

```
@@ -25,7 +26,7 @@
 MODULE_DESCRIPTION("iptables REDIRECT target module");

 #if 0
-#define DEBUGP printk
+#define DEBUGP ve_printk
 #else
 #define DEBUGP(format, args...)
 #endif
@@ -119,14 +120,36 @@
  .me  = THIS_MODULE,
 };

+int init_iptable_REDIRECT(void)
+{
+ return virt_ipt_register_target(&redirect_reg);
+}
+
+void fini_iptable_REDIRECT(void)
+{
+ virt_ipt_unregister_target(&redirect_reg);
+}
+
 static int __init init(void)
 {
- return ipt_register_target(&redirect_reg);
+ int err;
+
+ err = init_iptable_REDIRECT();
+ if (err < 0)
+  return err;
+
+ KSYMRESOLVE(init_iptable_REDIRECT);
+ KSYMRESOLVE(fini_iptable_REDIRECT);
+ KSYMMODRESOLVE(ipt_REDIRECT);
+ return 0;
 }

 static void __exit fini(void)
 {
- ipt_unregister_target(&redirect_reg);
+ KSYMMODUNRESOLVE(ipt_REDIRECT);
+ KSYMUNRESOLVE(init_iptable_REDIRECT);
+ KSYMUNRESOLVE(fini_iptable_REDIRECT);
+ fini_iptable_REDIRECT();
 }

 module_init(init);
```