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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_ip_table_length;
#endif
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+ defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ err = KSYMPTINIT(init_mask, ve, VE_IP_TARGET_REDIRECT,
+ ipt_REDIRECT, init_ip_table_REDIRECT, ());
+ if (err < 0)
+ goto err_ip_table_REDIRECT;
+#endif
    return 0;

/* ----- */
@@ -1732,6 +1739,12 @@
    ip_tables, fini_ip_tables, ());
err_ip_tables:
#endif
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+ defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ KSYMPTFINI(ve->_ip_tables_modules, VE_IP_TARGET_REDIRECT,
+ ipt_REDIRECT, fini_ip_table_REDIRECT, ());
+err_ip_table_REDIRECT:
+#endif
    ve->_ip_tables_modules = 0;

    return err;
diff -uNr linux-2.6.15-openvz-025.014.orig/net/ipv4/netfilter/ipt_REDIRECT.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_REDIRECT.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);

```

---



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Subject: Re: [PATCH 2/2] virtualized ipt\_REDIRECT  
Posted by [Jason Stubbs](#) on Fri, 03 Mar 2006 06:04:53 GMT  
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Patch from Jason (jstubbs@work-at.co.jp):  
This patch adds support for ipt\_REDIRECT to bzctl.

--  
Jason Stubbs

```
diff -uNr vzctl-3.0.0-2.orig/man/vzctl.8 vzctl-3.0.0-2/man/vzctl.8
--- vzctl-3.0.0-2.orig/man/vzctl.8 2006-03-03 14:56:41.933057248 +0900
+++ vzctl-3.0.0-2/man/vzctl.8 2006-03-03 14:58:47.395983984 +0900
@@ -256,7 +256,8 @@
 \flipt_TCPMSS\fR, \flipt_tcpmss\fR, \flipt_ttl\fR, \flipt_LOG\fR,
 \flipt_length\fR, \flipt_contrack\fR, \flipt_contrack_ftp\fR,
 \flipt_contrack_irc\fR, \flipt_contrack\fR, \flipt_state\fR,
-\flipt_helper\fR, \fliptable_nat\fR, \flipt_nat_ftp\fR, \flipt_nat_irc\fR.
+\flipt_helper\fR, \fliptable_nat\fR, \flipt_nat_ftp\fR, \flipt_nat_irc\fR,
+\flipt_REDIRECT\fR.
.TP
\BNetwork devices control parameters\fR
.IP "\fB--netdev_add\fR \fname\fR"
diff -uNr vzctl-3.0.0-2.orig/src/lib/config.c vzctl-3.0.0-2/src/lib/config.c
--- vzctl-3.0.0-2.orig/src/lib/config.c 2006-03-03 14:56:41.942055880 +0900
+++ vzctl-3.0.0-2/src/lib/config.c 2006-03-03 14:57:14.238146128 +0900
@@ -62,6 +62,7 @@
 {"iptable_nat", VE_IP_NAT},
 {"ip_nat_ftp", VE_IP_NAT_FTP},
 {"ip_nat_irc", VE_IP_NAT_IRC},
+ {"ipt_REDIRECT", VE_IP_TARGET_REDIRECT},
#endif
{NULL, 0}
};
```

---

Subject: Re: [PATCH 1/2] virtualized ipt\_REDIRECT  
Posted by [Jason Stubbs](#) on Fri, 03 Mar 2006 06:14:10 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Missed two defines when bringing the patch forward from 2.6.8.  
How embarrassing...

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

--

Jason Stubbs

```
diff -ur 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 15:20:12.223660488 +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;

@@ -170,6 +171,7 @@
DECL_KSYM_CALL(int, init_iptable_nat, (void));
DECL_KSYM_CALL(int, init_iptable_nat_ftp, (void));
DECL_KSYM_CALL(int, init_iptable_nat_irc, (void));
+DECL_KSYM_CALL(int, init_iptable_REDIRECT, (void));
DECL_KSYM_CALL(void, fini_iptable_nat_irc, (void));
DECL_KSYM_CALL(void, fini_iptable_nat_ftp, (void));
DECL_KSYM_CALL(void, fini_iptable_nat, (void));
@@ -194,6 +196,7 @@
DECL_KSYM_CALL(void, fini_iptable_mangle, (void));
DECL_KSYM_CALL(void, fini_iptables, (void));
DECL_KSYM_CALL(void, fini_netfilter, (void));
+DECL_KSYM_CALL(void, fini_iptable_REDIRECT, (void));

DECL_KSYM_CALL(void, ipt_flush_table, (struct ipt_table *table));
#endif /* CONFIG_VE_IPTABLES */
diff -ur 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 -ur 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 -ur 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 -ur 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)
+ KSYMPTFINI(ve->_iptables_modules, VE_IP_TARGET_REDIRECT,
+ ipt_REDIRECT, fini_iptable_REDIRECT, ());
+err_iptable_REDIRECT:
+#endif
ve->_iptables_modules = 0;

return err;
diff -ur linux-2.6.15-openvz-025.014.orig/net/ipv4/netfilter/ipt_REDIRECT.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_REDIRECT.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);
```

---

---

Subject: Re: [PATCH 1/2] virtualized ipt\_REDIRECT  
Posted by [dev](#) on Thu, 16 Mar 2006 13:07:02 GMT  
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Jason,

I fixed error path in do\_ve\_iptables().  
Here is the patch which is committed in 2.6.8.  
It will be also committed in coming 2.6.16.

Thanks,  
Kirill

> Missed two defines when bringing the patch forward from 2.6.8.  
> How embarrassing...

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

>  
> --  
> Jason Stubbs

>  
>  
> -----  
>  
> diff -ur 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 15:20:12.223660488 +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;  
>  
> @@ -170,6 +171,7 @@  
> DECL\_KSYM\_CALL(int, init\_iptable\_nat, (void));  
> DECL\_KSYM\_CALL(int, init\_iptable\_nat\_ftp, (void));  
> DECL\_KSYM\_CALL(int, init\_iptable\_nat\_irc, (void));

```

> +DECL_KSYM_CALL(int, init_iptable_REDIRECT, (void));
> DECL_KSYM_CALL(void, fini_iptable_nat_irc, (void));
> DECL_KSYM_CALL(void, fini_iptable_nat_ftp, (void));
> DECL_KSYM_CALL(void, fini_iptable_nat, (void));
> @@ -194,6 +196,7 @@
> DECL_KSYM_CALL(void, fini_iptable_mangle, (void));
> DECL_KSYM_CALL(void, fini_iptables, (void));
> DECL_KSYM_CALL(void, fini_netfilter, (void));
> +DECL_KSYM_CALL(void, fini_iptable_REDIRECT, (void));
>
> DECL_KSYM_CALL(void, ipt_flush_table, (struct ipt_table *table));
> #endif /* CONFIG_VE_IPTABLES */
> diff -ur 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 -ur 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 -ur 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 -ur 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)
> + KSYMPTFINI(ve->_iptables_modules, VE_IP_TARGET_REDIRECT,
> + ipt_REDIRECT, fini_iptable_REDIRECT, ());
> +err_iptable_REDIRECT:
> +#endif
> ve->_iptables_modules = 0;
>
> return err;
> diff -ur linux-2.6.15-openvz-025.014.orig/net/ipv4/netfilter/ipt_REDIRECT.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_REDIRECT.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);
> + KSYMUNRESOLVE(ipt_REDIRECT);
> + KSYMUNRESOLVE(init_iptable_REDIRECT);
> + KSYMUNRESOLVE(fini_iptable_REDIRECT);
> + fini_iptable_REDIRECT();
> }
>
> module_init(init);
>
>
> -----
>
--- ./include/linux/nfcalls.h.iptredir 2006-03-03 14:43:05.000000000 +0300
+++ ./include/linux/nfcalls.h 2006-03-16 16:06:33.000000000 +0300
@@ -155,6 +155,7 @@ DECL_KSYM_MODULE(ipt_helper);
DECL_KSYM_MODULE(iptable_nat);
DECL_KSYM_MODULE(ip_nat_ftp);
DECL_KSYM_MODULE(ip_nat_irc);
+DECL_KSYM_MODULE(ipt_REDIRECT);
#endif

struct sk_buff;
@@ -182,6 +183,7 @@ DECL_KSYM_CALL(int, init_iptable_helper,

```

```

DECL_KSYM_CALL(int, init_iptable_nat, (void));
DECL_KSYM_CALL(int, init_iptable_nat_ftp, (void));
DECL_KSYM_CALL(int, init_iptable_nat_irc, (void));
+DECL_KSYM_CALL(int, init_iptable_REDIRECT, (void));
DECL_KSYM_CALL(void, fini_iptable_nat_irc, (void));
DECL_KSYM_CALL(void, fini_iptable_nat_ftp, (void));
DECL_KSYM_CALL(void, fini_iptable_nat, (void));
@@ -205,6 +207,7 @@ DECL_KSYM_CALL(void, fini_iptable_filter
DECL_KSYM_CALL(void, fini_iptable_mangle, (void));
DECL_KSYM_CALL(void, fini_iptables, (void));
DECL_KSYM_CALL(void, fini_netfilter, (void));
+DECL_KSYM_CALL(void, fini_iptable_REDIRECT, (void));

DECL_KSYM_CALL(void, ipt_flush_table, (struct ipt_table *table));
#endif /* CONFIG_VE_IPTABLES */
--- ./include/linux/vzcalluser.h.iptredir 2006-03-03 14:43:11.000000000 +0300
+++ ./include/linux/vzcalluser.h 2006-03-16 16:05:46.000000000 +0300
@@ -82,6 +82,7 @@ struct vzctl_ve_netdev {
#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)
@@ -127,6 +128,8 @@ struct vzctl_ve_netdev {
| 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 \
--- ./kernel/ve.c.iptredir 2006-03-03 14:43:05.000000000 +0300
+++ ./kernel/ve.c 2006-03-16 16:05:46.000000000 +0300
@@ -75,6 +75,7 @@ INIT_KSYM_MODULE(ipt_helper);
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));
@@ -99,6 +100,7 @@ INIT_KSYM_CALL(int, init_iptable_helper,
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));
@@ -122,6 +124,7 @@ INIT_KSYM_CALL(void, fini_iptable_filter
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
--- ./kernel/vecalls.c.iptredir 2006-03-03 16:16:06.000000000 +0300
+++ ./kernel/vecalls.c 2006-03-16 16:07:25.000000000 +0300
@@ -1577,11 +1577,24 @@ static int do_ve_iptables(struct ve_stru
    if (err < 0)
        goto err_iptable_length;
#endif
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+ defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ err = KSYMIPINIT(init_mask, ve, VE_IP_TARGET_REDIRECT,
+ ipt_REDIRECT, init_iptable_REDIRECT, ());
+ if (err < 0)
+ goto err_iptable_REDIRECT;
+#endif
return 0;

/* ----- */

cleanup:
+#if defined(CONFIG_IP_NF_TARGET_REDIRECT) || \
+ defined(CONFIG_IP_NF_TARGET_REDIRECT_MODULE)
+ KSYMIPFINI(ve->_iptables_modules, VE_IP_TARGET_REDIRECT,
+ ipt_REDIRECT, fini_iptable_REDIRECT, ());
+err_iptable_REDIRECT:
+#endif
#if defined(CONFIG_IP_NF_MATCH_LENGTH) || \
    defined(CONFIG_IP_NF_MATCH_LENGTH_MODULE)
    KSYMIPFINI(ve->_iptables_modules, VE_IP_MATCH_LENGTH,
--- ./net/ipv4/netfilter/iptables_REDIRECT.c.iptredir 2004-08-14 14:55:10.000000000 +0400
+++ ./net/ipv4/netfilter/iptables_REDIRECT.c 2006-03-16 16:11:10.000000000 +0300
@@ -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_AUTHOR("Netfilter Core Team <core
MODULE_DESCRIPTION("iptables REDIRECT target module");
```

```
#if 0
-#define DEBUGP printk
+#define DEBUGP ve_printk
#else
#define DEBUGP(format, args...)
#endif
@@ -115,14 +116,36 @@ static struct ipt_target redirect_reg =
.me = THIS_MODULE,
};
```

```
+int init_iptable_REDIRECT(void)
+{
+ return visible_ipt_register_target(&redirect_reg);
+}
+
+void fini_iptable_REDIRECT(void)
+{
+ visible_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);
+ KSYMRESOLVE(ipt_REDIRECT);
+ return 0;
}
```

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

```
module_init(init);
```

---