Subject: Re: [PATCH 5/12] L2 network namespace: IPv4 routing
Posted by Daniel Lezcano on Wed, 06 Dec 2006 22:40:29 GMT

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Dmitry Mishin wrote:
> Make FIBs per-namespace and adds additional key (net namespace) to lookups in
> routing cache.
>
> Signed-off-by: Dmitry Mishin <dim@openvz.org>
>
> ---
> include/linux/net_namespace.h | 12 ++++
> include/net/flow.h | 3 +
> include/net/ip_fib.h | 48 ++++++++++++++---
> net/core/fib_rules.c | 43 ++++++++++++--
> net/core/net_namespace.c | 9 +++
> net/ipv4/fib_frontend.c | 121 +++++++++++++++++++++++++++++++++++++-------
> net/ipv4/fib_hash.c | 13 +++-
> net/ipv4/fib_rules.c | 86 +++++++++++++++++++++++----
> net/ipv4/fib_semantics.c | 100 +++++++++++++++++++++++-----------
> net/ipv4/fib_trie.c | 18 ++++--
> net/ipv4/route.c | 29 +++++++++-
> 11 files changed, 391 insertions(+), 91 deletions(-)
>
> --- linux-2.6.19-rc6-mm2.orig/include/linux/net_namespace.h
> +++ linux-2.6.19-rc6-mm2/include/linux/net_namespace.h
> @@ -11,6 +11,18 @@ struct net_namespace {
>   struct net_device *dev_base_p, **dev_tail_p;
>   struct net_device *loopback_dev_p;
>   struct pcpu_lstats *pcpu_lstats_p;
> +#ifndef CONFIG_IP_MULTIPLE_TABLES
> + struct fib_table *fib4_local_table, *fib4_main_table;
> +#else
> + struct list_head fib_rules_ops_list;
> + struct fib_rules_ops *fib4_rules_ops;
> +#endif
> + struct hlist_head *fib4_tables;
> + struct hlist_head *fib4_hash, *fib4_laddrhash;
> + unsigned fib4_hash_size, fib4_info_cnt;
> +#ifdef CONFIG_IP_FIB_TRIE
> + int   fib4_trie_last_dflt;
> +#endif
>   unsigned int hash;
> };
>
> --- linux-2.6.19-rc6-mm2.orig/include/net/flow.h
> +++ linux-2.6.19-rc6-mm2/include/net/flow.h
> @@ -82,6 +82,9 @@ struct flowi {

> #define fl_mh_type uli_u.mht.type
> #endif
> __u32   secid; /* used by xfrm; see secid.txt */
> +#ifdef CONFIG_NET_NS
> + struct net_namespace *net_ns;
> +#endif
> } __attribute__((__aligned__(BITS_PER_LONG/8)));
>
> #define FLOW_DIR_IN 0
> --- linux-2.6.19-rc6-mm2.orig/include/net/ip_fib.h
> +++ linux-2.6.19-rc6-mm2/include/net/ip_fib.h
> @@ -18,6 +18,7 @@
>
> #include <net/flow.h>
> #include <linux/seq_file.h>
> +#include <linux/net_namespace.h>
> #include <net/fib_rules.h>
>
> struct fib_config {
> @@ -171,14 +172,21 @@ struct fib_table {
>
> #ifndef CONFIG_IP_MULTIPLE_TABLES
>
> -extern struct fib_table *ip_fib_local_table;
> -extern struct fib_table *ip_fib_main_table;
> +#ifndef CONFIG_NET_NS
> +extern struct fib_table *ip_fib_local_table_static;
> +extern struct fib_table *ip_fib_main_table_static;
> +#define ip_fib_local_table_ns() ip_fib_local_table_static
> +#define ip_fib_main_table_ns() ip_fib_main_table_static
> +#else
> +#define ip_fib_local_table_ns() (current_net_ns->fib4_local_table)
> +#define ip_fib_main_table_ns() (current_net_ns->fib4_main_table)
> +#endif

Why don't you use :
#ifndef CONFIG_NET_NS
extern struct fib_table *ip_fib_local_table
extern struct fib_table *ip_fib_main_table
#else
#define ip_fib_local_table (current_net_ns->fib4_local_table)
#define ip_fib_main_table (current_net_ns->fib4_main_table)
#endif

You don't need to replace all ip_fib_local_table by
ip_fib_local_table_ns. It will reduce a lot the code impact, no ?

Subject: Re: [PATCH 5/12] L2 network namespace: IPv4 routing
Posted by Mishin Dmitry on Thu, 07 Dec 2006 09:41:05 GMT
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On Thursday 07 December 2006 01:40, Daniel Lezcano wrote:
> Dmitry Mishin wrote:
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> > Signed-off-by: Dmitry Mishin <dim@openvz.org>
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> > + struct hlist_head *fib4_tables;
> > + struct hlist_head *fib4_hash, *fib4_laddrhash;
> > + unsigned fib4_hash_size, fib4_info_cnt;
> > +#ifdef CONFIG_IP_FIB_TRIE

```
> > + int   fib4_trie_last_dflt;
> > +#endif
> >   unsigned int  hash;
> > };
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> > --- linux-2.6.19-rc6-mm2.orig/include/net/flow.h
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> > @@ -82,6 +82,9 @@ struct flowi {
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> > +extern struct fib_table *ip_fib_main_table_static;
> > +#define ip_fib_local_table_ns()  ip_fib_local_table_static
> > +#define ip_fib_main_table_ns()  ip_fib_main_table_static
> > +#else
> > +#define ip_fib_local_table_ns()  (current_net_ns->fib4_local_table)
> > +#define ip_fib_main_table_ns()  (current_net_ns->fib4_main_table)
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> Why don't you use :
> #ifndef CONFIG_NET_NS
> extern struct fib_table *ip_fib_local_table
> extern struct fib_table *ip_fib_main_table
> #else
```

> #define ip_fib_local_table (current_net_ns->fib4_local_table)
> #define ip_fib_main_table (current_net_ns->fib4_main_table)
> #endif
>
> You don't need to replace all ip_fib_local_table by
> ip_fib_local_table_ns. It will reduce a lot the code impact, no ?
But this also make code more foggy. All developers will continue to think,
that ip_fib_local_table IS static variable, while after such change it is
not true. So, rename it for more clear code.

Probably, the same should be done for dev_base, dev_tail.

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Thanks,
Dmitry.

_____
Containers mailing list
Containers@lists.osdl.org
https://lists.osdl.org/mailman/listinfo/containers