
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:

> > 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 ?
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
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