
Subject: Re: [PATCH 5/12] L2 network namespace: IPv4 routing

Posted by [Daniel Lezcano](#) on Thu, 07 Dec 2006 09:58:00 GMT

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Dmitry Mishin wrote:

> 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.

In other way, if net_ns is disabled, all developpers will continue to
think that ip_fib_local_table_ns is non-static :)

Containers mailing list

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