
Subject: Re: [RFD] L2 Network namespace infrastructure

Posted by [ebiederm](#) on Sat, 23 Jun 2007 17:26:28 GMT

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Ben Greear <greearb@candelatech.com> writes:

> Patrick McHardy wrote:

>> Eric W. Biederman wrote:

>>

>>> -- The basic design

>>>

>>> There will be a network namespace structure that holds the global

>>> variables for a network namespace, making those global variables

>>> per network namespace.

>>>

>>> One of those per network namespace global variables will be the

>>> loopback device. Which means the network namespace a packet resides

>>> in can be found simply by examining the network device or the socket

>>> the packet is traversing.

>>>

>>> Either a pointer to this global structure will be passed into

>>> the functions that need to reference per network namespace variables

>>> or a structure that is already passed in (such as the network device)

>>> will be modified to contain a pointer to the network namespace

>>> structure.

>>>

>>

>>

>> I believe OpenVZ stores the current namespace somewhere global,

>> which avoids passing the namespace around. Couldn't you do this

>> as well?

>>

> Will we be able to have a single application be in multiple name-spaces?

A single application certainly. But then an application can be composed of multiple processes which can be composed of multiple threads.

In my current patches a single task_struct belongs to a single network namespace. That namespace is used when creating sockets. The sockets themselves have a namespace tag and that is used when transmitting packets, or otherwise operating on the socket.

So if you pass a socket from one process to another you can have sockets that belong to different network namespaces in a single task.

Eric

Containers mailing list

