
Subject: VRF within containers

Posted by [Vincent JARDIN](#) on Thu, 18 Oct 2012 08:31:54 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi,

When physical routers are used, they allow VRF based forwarding. They can be made of Linux namespace.

However, when a container is being used to virtualize routers, it prevents from running within each containers some VRF based packet processing. For instance, assume that you have 10 containers running MP-BGP into each containers; using MP-BGP, each container can manage 1 to few thousands of VRF (routing table).

With the current assumptions, assuming than MP-BGP uses namespace to index the routing table, then it cannot support the combination of VRF forwarding within each container/namespace.

A workaround can be to add a VRF attribute into each namespace so any packet processing can be prefixed by an VR index (routing table, IPsec SAD/SPD lookup, etc.).

Have you ever considered any other options like adding a VRF index into each namespace?

Thank you,
Vincent

--

Multicore Packet Processing Forum:
<http://multicorepacketprocessing.com>

Subject: Re: VRF within containers

Posted by [Vincent JARDIN](#) on Mon, 22 Oct 2012 20:34:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

As anyone any concerns about VRF exclusivity versus containers? Or should I send it on devel@ mailing list instead?

Thank you,
Vincent

On 18/10/2012 10:31, Vincent JARDIN wrote:

> Hi,
>

- > When physical routers are used, they allow VRF based forwarding. They
 - > can be made of Linux namespace.
 - >
 - > However, when a container is being used to virtualize routers, it
 - > prevents from running within each containers some VRF based packet
 - > processing. For instance, assume that you have 10 containers running
 - > MP-BGP into each containers; using MP-BGP, each container can manage 1
 - > to few thousands of VRF (routing table).
 - >
 - > With the current assumptions, assuming than MP-BGP uses namespace to
 - > index the routing table, then it cannot support the combination of VRF
 - > forwarding within each container/namespace.
 - >
 - > A workaround can be to add a VRF attribute into each namespace so any
 - > packet processing can be prefixed by an VR index (routing table, IPsec
 - > SAD/SPD lookup, etc.).
 - >
 - > Have you ever considered any other options like adding a VRF index into
 - > each namespace?
-