Subject: Re: OverlayFS (was Re: CUDA support inside containers)
Posted by khorenko on Mon, 21 Nov 2016 16:11:14 GMT

abufrejoval wrote on Mon, 21 November 2016 15:18I guess OverlayFS is what I need to selectively replicate /proc and /sys contents from the host to make the CUDA runtime happy.

I remember reading about it on lwn.net and it looks like it's actually been backported from 3.18 to RHEL/CentOS/(OpenVZ?)7 3.10 kernels to support Docker, but it seems it's kernel only and missing support from the userland tools ("mount: unknown file system type 'overlayfs'...").

It's quite maddenning, because device access to /dev/nvidia* from inside the container in general seems to be supported in OpenVZ: I get a 'proper' "invalid argument" when doing a 'cat /dev/nvidia-uvm' and not the dreaded "permission denied" I get from LXC on the native CentOS.

You can use overlayfs inside a Virtuozzo 7/OpenVZ 7 Container, all you need is to load the appropriate kernel module on the host.

Did you try to get further with mounting /proc/modules inside a Container with the file with content from the host's /proc/modules?