Rocky Enterprise Linux 9.2 Manual Pages on command 'systemd-detect-virt.1'

C:\>man systemd-detect-virt.1

SYSTEMD-DETECT-VIRT(1) systemd-detect-virt SYSTEMD-DETECT-VIRT(1)

NAME

systemd-detect-virt - Detect execution in a virtualized environment

SYNOPSIS

systemd-detect-virt [OPTIONS...]

DESCRIPTION

systemd-detect-virt detects execution in a virtualized environment. It identifies the virtualization technology and can distinguish full machine virtualization from container virtualization. systemd-detect-virt exits with a return value of 0 (success) if a virtualization technology is detected, and non-zero (error) otherwise. By default, any type of virtualization is detected, and the options --container and --vm can be used to limit what types of virtualization are detected.

When executed without --quiet will print a short identifier for the detected virtualization technology. The following technologies are currently identified:

Table 1. Known virtualization technologies (both VM, i.e. full hardware virtualization, and container, i.e. shared kernel virtualization)

??

?Type ? ID ? Product ?

??

?VM ? qemu ? QEMU software ?

? ? ? virtualization, ?

? ? ? without KVM ?

? ??????????????????????????????????????

? ? kvm ? Linux KVM kernel ?

? ? ? virtual machine, with ?

? ? ? whatever software, ?

? ? ? except Oracle ?

? ? ? Virtualbox ?

? ??????????????????????????????????????

? ? zvm ? s390 z/VM ?

? ??????????????????????????????????????

? ? vmware ? VMware Workstation or ?

? ? ? Server, and related ?

? ? ? products ?

? ??????????????????????????????????????

? ? microsoft ? Hyper-V, also known as ?

? ? ? Viridian or Windows ?

? ? ? Server Virtualization ?

? ??????????????????????????????????????

? ? oracle ? Oracle VM VirtualBox ?

? ? ? (historically marketed ?

? ? ? by innotek and Sun ?

? ? ? Microsystems), for ?

? ? ? legacy and KVM ?

? ? ? hypervisor ?

? ??????????????????????????????????????

? ? xen ? Xen hypervisor (only ?

? ? ? domU, not dom0) ?

? ??????????????????????????????????????

? ? bochs ? Bochs Emulator ?

? ??????????????????????????????????????

? ? uml ? User-mode Linux ?

? ??????????????????????????????????????

? ? parallels ? Parallels Desktop, ?

? ? ? Parallels Server ?

? ??

? ? bhyve ? bhyve, FreeBSD ?

? ? ? hypervisor ?

? ??

? ? qnx ? QNX hypervisor ?

? ??

? ? acrn ? ACRN hypervisor[1] ?

??

?Container ? openvz ? OpenVZ/Virtuozzo ?

? ??

? ? lxc ? Linux container ?

? ? ? implementation by LXC ?

? ??

? ? lxc-libvirt ? Linux container ?

? ? ? implementation by ?

? ? ? libvirt ?

? ??

? ? systemd-nspawn ? systemd's minimal ?

? ? ? container ?

? ? ? implementation, see ?

? ? ? systemd-nspawn(1) ?

? ??

? ? docker ? Docker container ?

? ? ? manager ?

? ??

? ? podman ? Podman[2] container ?

? ? ? manager ?

? ??

? ? rkt ? rkt app container ?

? ? ? runtime ?

? ??

? ? wsl ? Windows Subsystem for ?

? ? ? Linux[3] ?

??

If multiple virtualization solutions are used, only the "innermost" is detected and identified. That means if both machine and container virtualization are used in conjunction, only the latter will be identified (unless --vm is passed).

Windows Subsystem for Linux is not a Linux container, but an environment for running Linux userspace applications on top of the Windows kernel using a Linux-compatible interface. WSL is categorized as a container for practical purposes. Multiple WSL environments share the same kernel and services should generally behave like when being run in a container.

OPTIONS

The following options are understood:

-c, --container

Only detects container virtualization (i.e. shared kernel virtualization).

-v, --vm

Only detects hardware virtualization.

-r, --chroot

Detect whether invoked in a chroot(2) environment. In this mode, no output is written, but the return value indicates whether the process was invoked in a chroot() environment or not.

--private-users

Detect whether invoked in a user namespace. In this mode, no output is written, but the return value indicates whether the process was invoked inside of a user namespace or not. See user_namespaces(7) for more information.

-q, --quiet

Suppress output of the virtualization technology identifier.

--list

Output all currently known and detectable container and VM environments.

-h, --help

Print a short help text and exit.

--version

Print a short version string and exit.

EXIT STATUS

If a virtualization technology is detected, 0 is returned, a non-zero code otherwise.

SEE ALSO

systemd(1), systemd-nspawn(1), chroot(2), namespaces(7)

NOTES

1. ACRN hypervisor

   https://projectacrn.org

2. Podman

   https://podman.io

3. Windows Subsystem for Linux

   https://docs.microsoft.com/en-us/windows/wsl/about