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
	kvm	Linux KVM kernel virtual machine
	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)
	xen	Xen hypervisor (only domU, not dom0)
	bochs	Bochs Emulator
	uml	User-mode Linux
	parallels	Parallels Desktop, Parallels Server
	bhyve	bhyve, FreeBSD hypervisor
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
	rkt	rkt app container runtime

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).

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.

-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)**