

NAME

vmci - VMware Virtual Machine Communication Interface

SYNOPSIS

To compile this driver into the kernel, place the following line in your kernel configuration file:

```
device vmci
```

Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

```
if_vmci_load="YES"
```

DESCRIPTION

The **vmci** driver provides support for the VMware Virtual Machine Communication Interface (VMCI) in virtual machines by VMware.

VMCI allows virtual machines to communicate with host kernel modules and the VMware hypervisors. User level applications in a virtual machine can use VMCI through vSockets (also known as VMCI Sockets and not included in this kernel module), a socket address family designed to be compatible with UDP and TCP at the interface level. Today, VMCI and vSockets are used by various VMware Tools components inside the guest for zero-config, network-less access to VMware host services. In addition to this, VMware's users are using vSockets for various applications, where network access of the virtual machine is restricted or non-existent. Examples of this are VMs communicating with device proxies for proprietary hardware running as host applications and automated testing of applications running within virtual machines.

In a virtual machine, VMCI is exposed as a regular PCI device. The primary communication mechanisms supported are a point-to-point bidirectional transport based on a pair of memory-mapped queues, and asynchronous notifications in the form of datagrams and doorbells. These features are available to kernel level components such as vSockets through the VMCI kernel API. In addition to this, the VMCI kernel API provides support for receiving events related to the state of the VMCI communication channels, and the virtual machine itself.

SEE ALSO

socket(2), pci(9)

VMware vSockets Documentation, <https://www.vmware.com/support/developer/vmci-sdk/>.

HISTORY

The **vmci** driver first appeared in FreeBSD 12.0.

AUTHORS

The **vmci** driver and man page were written by Vishnu Dasa <vdasahar@gmail.com>.