

VirtIO Status

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Agenda

- What is VirtIO?
- Status
- WIP
- What's Left

What is VirtIO?

- Standard for paravirtualized IO
 - Host - QEMU/Vhost, Virtualbox, BHyVe
 - Guest - Linux, Windows, Illumos, NetBSD, FreeBSD
- Configuration typically done via PCI
- IO via shared memory (virtqueue)



Status

- Most complete implementation outside of Linux
 - PCI, block, network, balloon, SCSI
 - Most features supported

WIP

- projects/virtio
 - Significant cleanup
 - Removed taskqueues with ithreads
 - Support for several minor features
- user/bryanv/vtnetmq
 - Multiqueue Rx/Tx
 - Improved checksum (IPv6)

What's Left

- Commit SVN branch work to HEAD
- Support remaining devices
 - MMIO, console
- Non-x86 archs
- Better stack support for checksum
 - VirtIO checksumming is done by offset/length
 - Local forwarding
- Unmapped IO?
- SCSI multiqueue?