

bhyve update

FreeBSD Vendor Summit 11/07/13

grehan@freebsd.org

neel@freebsd.org

10.0/amd64

- first release with bhyve
 - FreeBSD/amd64 guests: 8/9/10/11
 - Linux/x64, OpenBSD 5.4 via sysutils/grub2-bhyve
- 16 vCPUs max; as much RAM as you dare
- virtio net/block, AHCI sata/atapi, serial puc/lpc device support

Memory overcommit

- vm object created for guest memory
 - backed by the default object: zero-fill, swappable
- amd64 pmap.c used to manage EPT tables
- allows for transparent 2MB superpage promotion/demotion for EPT tables
- A/D bits on Haswell, emulated on priors

Futures

- AMD SVM (10.1)
- FreeBSD VT-d IOMMU integration (kib@)
- Transitioning to UEFI (BSD-licensed)
 - Requires 'CSM' BIOS emulation
- Illumos, Windows guest support
- Loadable device models and backends
- Suspend/Resume/Live migration