bhyve update

FreeBSD Vendor Summit 11/07/13

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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