FreeBSD Virtualization - Improving block I/O compatibility in bhyve

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Current difficulties

- low compatibility with other hypervisors
- no way to extend support for other formats
• developed by Marcel Molenaar
• never pushed upstream
• introduces an abstraction layer to block I/O
libvdsk
• image file format

• first integrated into QEMU

• nice features:
  – snapshots
  – good performance (caching)
  – compression
Why QCOW2?

- broad support and tools
- many open source implementations
- snapshot support useful for save/restore
Current status

- integrated libvdsdk in the build system
- extended library to add private data
- implemented open, close, read, write, flush
Further work

- further testing
- upstream the work
- add snapshot creation support
- integrate snapshotting in save/restore
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